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SUBCHAPTER I—CARGO AND MISCELLANEOUS VESSELS

PART 90—GENERAL PROVISIONS

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AUTHORITY: 46 U.S.C. 3306, 3703; Pub. L. 103–206, 107 Stat. 2439; 49 U.S.C. 5103, 5106; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

SOURCE: CGFR 65–50, 30 FR 16970, Dec. 30, 1965, unless otherwise noted.

Subpart 90.01—Authority and Purpose

§ 90.01–1 Purpose of regulations.

The purpose of the regulations in this subchapter is to set forth uniform minimum requirements for cargo and miscellaneous vessels, as listed in Column 5 of table 90.05–1(a).

[CGD 95–028, 62 FR 51205, Sept. 30, 1997]

§ 90.01–7 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.

[CGD 88–033, 54 FR 50380, Dec. 6, 1989]

§ 90.01–15 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.
§ 91.27–13	1625–0065
§ 91.40–3	1625–0032
§ 91.40–5	1625–0032
§ 97.15–7	1625–0064
§ 97.15–17	1625–0064

[CGD 88–072, 53 FR 34297, Sept. 6, 1988, as amended by CGD 82–004a, 55 FR 2525, Jan. 25, 1990; CGD 89–037, 57 FR 41822, Sept. 11, 1992; USCG–2004–18884, 69 FR 58347, Sept. 30, 2004]

Subpart 90.05—Application

§ 90.05–1 Vessels subject to requirements of this subchapter.

(a) This subchapter is applicable to all U.S.-flag vessels indicated in Column 4 of Table 90.05–1(a) and to all such foreign-flag vessels which carry 12 or fewer passengers from any port in the United States to the extent prescribed by law, except as follows:

(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 equipment certificate.

(2) Any vessel operating exclusively on inland waters which are not navigable waters of the United States.

(3) Any vessel while laid up and dismantled and out of commission.

(4) 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) Notwithstanding the exception previously noted in paragraph (a)(1) 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.

(c) Notwithstanding the exception noted in paragraph (a)(1) of this section, each foreign vessel shall report marine casualties occurring while the vessel is in the navigable waters of the United States as required by Subpart 97.07.

Table 90.05-1(a)

Method of propulsion, qualified by size or other limitation.[1]	Vessels inspected and certificated under--			Vessels subject to the provisions of--		
	Subchapter D--Tank Vessels.[2]	**Subchapter H--Passenger Vessels[2, 3, 4 and 5] or Subchapter K or T--Small Passenger Vessels.[2, 3, and 4]**	**Subchapter I--Cargo and Miscellaneous Vessels.[2 and 5]**	**Subchapter C--Uninspected Vessels.[2, 3, 6 7, and 8]**	**Subchapter U--Oceanographic Vessels.[2, 3, 6 7, and 9]**	**Subchapter O--Certain Bulk and Dangerous Cargoes.[10]**
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
(1) Motor, all vessels except seagoing motor vessels ≥ 300 gross tons.	All vessels carrying combustible or flammable liquid cargo in bulk.[5]	i) All vessels carrying more than 12 passengers on an international voyage, except recreational vessels not engaged in trade.[7] ii) All vessels < 100 gross tons that-- A) Carry more than 6 passengers-for-hire whether chartered or not, or B) Carry more than 6 passengers when chartered with the crew provided, or C) Carry more than 12 passengers when chartered with no crew provided, or D) Carry at least 1 passenger-for-hire and are submersible vessels.[7] E) Carry more than 6 passengers and are ferries. iii) All vessels ≥ 100 gross tons that-- A) Carry more than 12 passengers-for-hire whether chartered or not, or B) Carry more than 12 passengers when chartered with the crew provided, or C) Carry more than 12 passengers when chartered with no crew provided, or D) Carry at least 1 passenger-for-hire and are submersible vessels.[7] E) Carry at least 1 passenger and are ferries. iv) These regulations do not apply to-- A) Recreational vessels not engaged in trade. B) Documented cargo or tank vessels issued a permit to carry 16 or fewer persons in addition to the crew. C) Fishing vessels not engaged in ocean or coastwise service. Such vessels may carry persons on the legitimate business of the vessel[6] in addition to the crew, as restricted by the definition of passenger.[7]	All vessels > 15 gross tons carrying freight-for-hire, except those covered by columns 2 and 3. All vessels carrying dangerous cargoes, when required by 46 CFR part 98.	All vessels not covered by columns 2, 3, 4, and 6.	None.	All vessels carrying cargoes in bulk that are listed in part 153, table 1, or part 154, table 4, or unlisted cargoes that would otherwise be subject to these parts.[12]

Table 90.05-1(a) (continued)

Method of propulsion, qualified by size or other limitation.[1]		Vessels inspected and certificated under--			Vessels subject to the provisions of--		
		Subchapter D--Tank Vessels.[2]	Subchapter H--Passenger Vessels[2, 3, 4 and 5] or Subchapter K or T--Small Passenger Vessels.[2, 3, and 4]	Subchapter I--Cargo and Miscellaneous Vessels.[2 and 5]	Subchapter C--Uninspected Vessels.[2, 3, 6 7, and 8]	Subchapter U--Oceanographic Vessels.[2, 3, 6 7, and 9]	Subchapter O--Certain Bulk and Dangerous Cargoes.[10]
Column 1		Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
(2)	Motor, seagoing motor vessels ≥ 300 gross tons.	All vessels carrying combustible or flammable liquid cargo in bulk.[5]	i) All vessels carrying more than 12 passengers on an international voyage, except recreational vessels not engaged in trade.[7] ii) All ferries < 100 gross tons carrying more than 6 passengers and all ferries ≥ 100 gross tons that carry at least 1 passenger. iii) These regulations do not apply to-- A) Recreational vessels not engaged in trade. B) Documented cargo or tank vessels issued a permit to carry 16 or fewer persons in addition to the crew. C) Fishing vessels not engaged in ocean or coastwise service may carry persons on the legitimate business of the vessel[6] in addition to the crew, as restricted by the definition of passenger.[7]	All vessels, including recreational vessels, not engaged in trade. This does not include vessels covered by columns 2 and 3, and vessels engaged in the fishing industry.	All vessels not covered by columns 2, 3, 4, 6, and 7.	All vessels engaged in oceanographic research.	All vessels carrying cargoes in bulk that are listed in part 153, table 1, or part 154, table 4, or unlisted cargoes that would otherwise be subject to these parts.[12]
(3)	Non-self-propelled vessels < 100 gross tons.	All vessels carrying combustible or flammable liquid cargo in bulk.[5]	i) All vessels that-- A) Carry more than 6 passengers-for-hire whether chartered or not, or B) Carry more than 6 passengers when chartered with the crew provided, or C) Carry more than 12 passengers when chartered with no crew provided, or D) Carry at least 1 passenger-for-hire and is a submersible vessel.[7] E) Carry more than 12 passengers on an international voyage. F) Carry more than 6 passengers and are ferries.	All seagoing barges except those covered by columns 2 and 3.	All barges carrying passengers or passengers-for-hire except those covered by column 3.	None.	All tank barges carrying cargoes listed in Table 151.05 of this chapter or unlisted cargoes that would otherwise be subject to part 151.[1, 11, and 12]

(4)	Non-self-propelled vessels ≥ 100 gross tons.	All vessels carrying combustible or flammable liquid cargo in bulk.[5]	iii) All vessels that-- A) Carry more than 12 passengers-for-hire whether chartered or not, or B) Carry more than 12 passengers when chartered with the crew provided, or C) Carry more than 12 passengers when chartered with no crew provided, or D) Carry at least 1 passenger-for-hire and is a submersible vessel.[7] E) Carry more than 12 passengers on an international voyage. F) Carry at least 1 passenger and are ferries.	All seagoing barges except those covered by columns 2 and 3.	All barges carrying passengers or passengers-for-hire except those covered by columns 3 and 6.	All seagoing barges engaged in oceanographic research.	All tank barges carrying cargoes listed in Table 151.05 of this chapter or unlisted cargoes that would otherwise be subject to part 151.[1, 11, and 12]

Table 90.05-1(a) (continued)

Method of propulsion, qualified by size or other limitation.[1]	Vessels inspected and certificated under--			Vessels subject to the provisions of--		
	Subchapter D--Tank Vessels.[2]	Subchapter H--Passenger Vessels[2, 3, 4 and 5] or Subchapter K or T--Small Passenger Vessels.[2, 3, and 4]	Subchapter I--Cargo and Miscellaneous Vessels.[2 and 5]	Subchapter C--Uninspected Vessels.[2, 3, 6 7, and 8]	Subchapter U--Oceanographic Vessels.[2, 3, 6 7, and 9]	Subchapter O--Certain Bulk and Dangerous Cargoes.[10]
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
(5) Sail.[13] vessels ≤ 700 gross tons.	All vessels carrying combustible or flammable liquid cargo in bulk.[5]	i) All vessels carrying more than 12 passengers on an international voyage, except recreational vessels not engaged in trade.[7] ii) All vessels < 100 gross tons that-- A) Carry more than 6 passengers-for-hire whether chartered or not, or B) Carry more than 6 passengers when chartered with the crew provided, or C) Carry more than 12 passengers when chartered with no crew provided, or D) Carry at least 1 passenger-for-hire and are submersible vessels.[7] E) Carry more than 6 passengers and are ferries. iii) All vessels ≥ 100 gross tons that-- A) Carry more than 12 passengers-for-hire whether chartered or not, or B) Carry more than 12 passengers when chartered with the crew provided, or C) Carry more than 12 passengers when chartered with no crew provided, or D) Carry at least 1 passenger-for-hire and are submersible vessels.[7] E) Carry at least 1 passenger and are ferries. iv) These regulations do not apply to-- A) Recreational vessels not engaged in trade. B) Documented cargo or tank vessels issued a permit to carry 16 or fewer persons in addition to the crew. C) Fishing vessels, not engaged in ocean or coastwise service. Such vessels may carry persons on the legitimate business of the vessel[6] in addition to the crew, as restricted by the definition of passenger.[7]	All vessels carrying dangerous cargoes, when required by 46 CFR part 98.	All vessels not covered by columns 2, 3, 4, and 6.	None.	All vessels carrying cargoes in bulk that are listed in part 153, table 1, or part 154, table 4, or unlisted cargoes that would otherwise be subject to these parts.[12]

(6)	Sail.[13] vessels > 700 gross tons.	All vessels carrying combustible or flammable liquid cargo in bulk.[5]	i) All vessels carrying passengers or passengers-for-hire, except recreational vessels.[7] ii) All ferries that carry at least 1 passenger.	All vessels carrying dangerous cargoes, when required by 46 CFR part 98.	None.	None.	All vessels carrying cargoes in bulk that are listed in part 153, table 1, or part 154, table 4, or unlisted cargoes that would otherwise be subject to these parts.[12]

Table 90.05-1(a) (continued)

Method of propulsion, qualified by size or other limitation.[1]	Vessels inspected and certificated under--			Vessels subject to the provisions of--		
	Subchapter D--Tank Vessels.[2]	Subchapter H--Passenger Vessels[2, 3, 4 and 5] or Subchapter K or T--Small Passenger Vessels.[2, 3, and 4]	Subchapter I--Cargo and Miscellaneous Vessels.[2 and 5]	Subchapter C--Uninspected Vessels.[2, 3, 6 7, and 8]	Subchapter U--Oceanographic Vessels.[2, 3, 6 7, and 9]	Subchapter O--Certain Bulk and Dangerous Cargoes.[10]
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
(7) Steam, vessels ≤ 19.8 meters (65 feet) in length.	All vessels carrying combustible or flammable liquid cargo in bulk.[5]	i) All vessels carrying more than 12 passengers on an international voyage, except recreational vessels not engaged in trade.[7] ii) All vessels < 100 gross tons that-- A) Carry more than 6 passengers-for-hire whether chartered or not, or B) Carry more than 6 passengers when chartered with the crew provided, or C) Carry more than 12 passengers when chartered with no crew provided, or D) Carry at least 1 passenger-for-hire and are submersible vessels.[7] E) Carry more than 6 passengers and are ferries. iii) All vessels ≥ 100 gross tons that-- A) Carry more than 12 passengers-for-hire whether chartered or not, or B) Carry more than 12 passengers when chartered with the crew provided, or C) Carry more than 12 passengers when chartered with no crew provided, or D) Carry at least 1 passenger-for-hire and are submersible vessels.[7] E) Carry at least 1 passenger and are ferries. iv) These regulations do not apply to-- A) Recreational vessels not engaged in trade. B) Documented cargo or tank vessels issued a permit to carry 16 or fewer persons in addition to the crew. C) Fishing vessels not engaged in ocean or coastwise service. Such vessels may carry persons on the legitimate business of the vessel[6] in addition to the crew, as restricted by the definition of passenger.[7]	All tugboats and towboats. All vessels carrying dangerous cargoes, when required by 46 CFR part 98.	All vessels not covered by columns 2, 3, 4, and 6.	None.	All vessels carrying cargoes in bulk that are listed in part 153, table 1, or part 154, table 4, or unlisted cargoes that would otherwise be subject to these parts.[12]

Table 90.05-1(a) (continued)

Method of propulsion, qualified by size or other limitation.[1]		Vessels inspected and certificated under--			Vessels subject to the provisions of--		
		Subchapter D--Tank Vessels.[2]	**Subchapter H--Passenger Vessels[2, 3, 4 and 5] or Subchapter K or T--Small Passenger Vessels.[2, 3, and 4]**	**Subchapter I--Cargo and Miscellaneous Vessels.[2 and 5]**	**Subchapter C--Uninspected Vessels.[2, 3, 6 7, and 8]**	**Subchapter U--Oceanographic Vessels.[2, 3, 6 7, and 9]**	**Subchapter O--Certain Bulk and Dangerous Cargoes.[10]**
Column 1		Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
(7)	Steam, vessels > 19.8 meters (65 feet) in length.	All vessels carrying combustible or flammable liquid cargo in bulk.[5]	i) All vessels carrying more than 12 passengers on an international voyage, except recreational vessels not engaged in trade.[7] ii) All vessels < 100 gross tons that-- A) Carry more than 6 passengers-for-hire whether chartered or not, or B) Carry more than 6 passengers when chartered with the crew provided, or C) Carry more than 12 passengers when chartered with no crew provided, or D) Carry at least 1 passenger-for-hire and are submersible vessels.[7] E) Carry more than 6 passengers and are ferries. iii) All vessels ≥ 100 gross tons that-- A) Carry more than 12 passengers-for-hire whether chartered or not, or B) Carry more than 12 passengers when chartered with the crew provided, or C) Carry more than 12 passengers when chartered with no crew provided, or D) Carry at least 1 passenger-for-hire and are submersible vessels.[7] E) Carry at least 1 passenger and are ferries. iv) These regulations do not apply to-- A) Recreational vessels not engaged in trade. B) Documented cargo or tank vessels issued a permit to carry 16 or fewer persons in addition to the crew. C) Fishing vessels not engaged in ocean or coastwise service. Such vessels may carry persons on the legitimate business of the vessel[6] in addition to the crew, as restricted by the definition of passenger.[7]	All vessels not covered by columns 2, 3, 6, and 7.	None.	All vessels engaged in oceanographic research.	All vessels carrying cargoes in bulk that are listed in part 153, table 1, or part 154, table 4, or unlisted cargoes that would otherwise be subject to these parts.[12]

Key to symbols used in this table: ≤ means less than or equal to; > means greater than; < means less than; and ≥ means greater than or equal to.

Footnotes:

1 Where length is used in this table, it means the length measured from end to end over the deck, excluding sheer. This expression means a straight line measurement of the overall length from the foremost part of the vessel to the aftermost part of the vessel, measured parallel to the centerline.

2 Subchapters E (Load Lines), F (Marine Engineering), J (Electrical Engineering), N (Dangerous Cargoes), S (Subdivision and Stability), and W (Lifesaving Appliances and Arrangements) of this chapter may also be applicable under certain conditions. The provisions of 49 CFR parts 171-179 apply whenever packaged hazardous materials are on board vessels (including motorboats), except when specifically exempted by law.

3 Public nautical schoolships, other than vessels of the Navy and Coast Guard, must meet the requirements of part 167 of subchapter R (Nautical Schools) of this chapter, Civilian nautical schoolships, as defined by 46 U.S.C. 1331, must meet the requirements of subchapter H (Passenger Vessels) and part 168 of subchapter R (Nautical Schools) of this chapter.

4 Subchapter H (Passenger Vessels) of this chapter covers only those vessels of 100 gross tons or more, subchapter T (Small Passenger Vessels) of this chapter covers only those vessels of less than 100 gross tons, and subchapter K (Small Passenger Vessels) of this chapter covers only those vessels less than 100 gross tons carrying more than 150 passengers or overnight accommodations for more than 49 passengers.

5 Vessels covered by subchapter H (Passenger Vessels) or I (Cargo and Miscellaneous Vessels) of this chapter, where the principal purpose or use of the vessel is not for the carriage of liquid cargo, may be granted a permit to carry a limited amount of flammable or combustible liquid cargo in bulk. The portion of the vessel used for the carriage of the flammable or combustible liquid cargo must meet the requirements of subchapter D (Tank Vessels) in addition to the requirements of subchapter H (Passenger Vessels) or I (Cargo and Miscellaneous Vessels) of this chapter.

6 Any vessel on an international voyage is subject to the requirements of the International Convention for Safety of Life at Sea, 1974 (SOLAS).

7 The terms "passenger(s)" and "passenger(s)-for-hire" are as defined in 46 U.S.C. 2101(21)(21a). On oceanographic vessels, scientific personnel onboard shall not be deemed to be passengers nor seamen, but for calculations of lifesaving equipment, etc., must be counted as persons.

8 Boilers and machinery are subject to examination on vessels over 40 feet in length.

9 Under 46 U.S.C. 441 an oceanographic research vessel '" * * * being employed exclusively in instruction in oceanography or limnology, or both, or exclusively in oceanographic research, * * * * Under 46 U.S.C. 443, "an oceanographic research vessel shall not be deemed to be engaged in trade or commerce." If or when an oceanographic vessel engages in trade or commerce, such vessel cannot operate under its certificate of inspection as an oceanographic vessel, but shall be inspected and certificated for the service in which engaged, and the scientific personnel aboard then become persons employed in the business of the vessel.

10 Bulk dangerous cargoes are cargoes specified in table 151.01-10(b); in table 1 of part 153, and in table 4 of part 154 of this chapter.

11 For manned tankbarges, see § 151.01-10(c) of this chapter.

12 See § 151.01-15, 153.900(d), or 154.30 of this chapter as appropriate.

13 Sail vessel means a vessel with no auxiliary machinery on board. If the vessel has auxiliary machinery, refer to motor vessels.

[CGFR 65–50, 30 FR 16970, Dec. 30, 1965, as amended by CGFR 67–83, 33 FR 1109, Jan. 27, 1968; CGFR 70–10, 35 FR 3711, Feb. 25, 1970; CGD 73–96, 42 FR 49025, Sept. 26, 1977; CGD 77–042, 42 FR 63643, Dec. 19, 1977; CGD 86–033, 53 FR 36025, Sept. 16, 1988; CGD 86–033, 53 FR 46871, Nov. 21, 1988; CGD 90–008, 55 FR 30661, July 26, 1990; USCG–1999–5040, 67 FR 34792, May 15, 2002; USCG–2008–1107, 74 FR 63655, Dec. 4, 2009]

§ 90.05–5 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 cargo or miscellaneous 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.

§ 90.05–7 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 routes, including the Great Lakes.

§ 90.05–10 Application to vessels on an international voyage.

(a) Except for yachts and fishing vessels and 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 of at least 500 gross tons; 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 the 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 de Rosiers to West Point, Anticosti Island, the 63d 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 25288, May 20, 1996]

§ 90.05–20 Applicability to offshore supply vessels.

(a) Existing offshore supply vessels as defined by § 90.10–40(b), if they are of 100 or more but of less than 500 gross tons, are subject to inspection under this subchapter. New offshore supply vessels as defined by § 90.10–40(c), are subject to inspection under subchapter L of this chapter.

(b) Each offshore supply vessel permitted grandfathering under paragraph (a) of this section must complete construction and have a Certificate of Inspection by March 16, 1998.

[CGD 82–004 and CGD 86–074, 62 FR 49321, Sept. 19, 1997]

§ 90.05–25 Seagoing barge.

(a) All nonself-propelled vessels of 100 gross tons and over that proceed on voyages on the high seas or ocean are

subject to inspection and certification as seagoing barges.

(b) In applying the laws and regulations to manned seagoing barges, one criterion for invocation of safety standards is the description of seagoing barges by relative size in gross tons. When it is determined by the Commandant that the gross register tonnage for a particular manned seagoing barge, 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 regulations in this subchapter for a manned seagoing barge of such physical size, the Commandant shall prescribe the regulations to be made applicable to such seagoing barge. 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 manner seagoing barges, and before being permitted to operate such seagoing barges, compliance therewith shall be required. Endorsements or notations on the seagoing barge's certificate of inspection may be made as appropriate.

§ 90.05–35 Flammable and combustible 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 flammable and combustible liquid cargo in bulk in the grades indicated, provided the Certificate of Inspection is endorsed to permit such carriage:

(a) Cargo vessels:

(1) Grades D and E in an integral tank; and

(2) Grades D and E and certain specifically named Grade C in a portable tank, including a marine portable tank (MPT), in accordance with subpart 98.30 or 98.33 of this subchapter.

(b) Miscellaneous Vessels, such as cable, salvage, pile-driving, and oil-drilling-rig vessels:

(1) Grades B, C, D, and E in a fixed independent or integral tank authorized by the commandant;

(2) Grades D and E and certain specifically named Grade C in a portable tank, including an MPT, in accordance with subpart 98.30 or 98.33 of this subchapter.

[CGD 84–043, 55 FR 37410, Sept. 11, 1990, as amended by CGD 90–051, 57 FR 362146, Aug. 12, 1992]

Subpart 90.10—Definition of Terms Used in This Subchapter

§ 90.10–1 Anniversary date.

The term *anniversary date* means the day and the month of each year, which corresponds to the date of expiration of the Certificate of Inspection.

[USCG 1999–4976, 65 FR 6501, Feb. 9, 2000]

§ 90.10–2 Approved.

This term means approved by the Commandant unless otherwise stated.

[CGFR 65–50, 30 FR 16974, Dec. 30, 1965. Redesignated by USCG 1999–4976, 65 FR 6501, Feb. 9, 2000]

§ 90.10–3 Barge.

This term means any nonself-propelled vessel.

[CGFR 65–50, 30 FR 16974, Dec. 30, 1965. Redesignated by USCG 1999–4976, 65 FR 6501, Feb. 9, 2000]

§ 90.10–5 Carrying freight for hire.

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

§ 90.10–7 Commandant.

This term means the Commandant of the Coast Guard.

§ 90.10–9 Coast Guard District Commander.

This term means an officer of the Coast Guard designated as such by the Commandant to command all Coast Guard activities within the officer's district, which include the inspection, enforcement, and administration of

Subtitle II of Title 46, U.S. Code, Title 46 and Title 33 U.S. Code, and regulations issued under these statutes.

[CGD 95–028, 62 FR 51205, Sept. 30, 1997]

§ 90.10–11 Coastwise.

Under this designation shall be included all vessels normally navigating the waters of any ocean or the Gulf of Mexico 20 nautical miles or less offshore.

§ 90.10–12 Gas free.

This term means free from dangerous concentrations of flammable or toxic gases.

§ 90.10–13 Great Lakes.

Under this designation shall be included all vessels navigating the Great Lakes.

§ 90.10–14 Headquarters.

This term means the Office of the Commandant, U.S. Coast Guard, Washington, DC 20593–0001.

[CGFR 67–90, 33 FR 1015, Jan. 26, 1968, as amended by CGD 88–070, 53 FR 34534, Sept. 7, 1988]

§ 90.10–15 Industrial personnel.

This term means every person carried on board an industrial vessel for the sole purpose of carrying out the industrial business or functions of the industrial vessel. Examples of industrial personnel include tradesmen, such as mechanics, plumbers, electricians, and welders; laborers, such as wreckers and construction workers; and other persons, such as supervisors, engineers, technicians, drilling personnel, and divers.

[CGFR 67–90, 33 FR 1015, Jan. 26, 1968]

§ 90.10–16 Industrial vessel.

This term means every vessel which by reason of its special outfit, purpose, design, or function engages in certain industrial ventures. Included in this classification are such vessels as drill rigs, missile range ships, dredges, cable layers, derrick barges, pipe lay barges, construction and wrecking barges. Excluded from this classification are vessels carrying freight for hire or engaged in oceanography, limnology, or the fishing industry.

[CGFR 67–90, 33 FR 1015, Jan. 26, 1968]

§ 90.10–19 Lakes, bays, and sounds.

Under this designation shall be included all vessels navigating the waters of any of the lakes, bays, or sounds other than the waters of the Great Lakes.

§ 90.10–20 Liftboat.

Liftboat means an offshore supply vessel with moveable legs capable of raising it's hull above the surface of the sea.

[CGD 82–004a, 55 FR 2525, Jan. 25, 1990]

§ 90.10–21 Marine inspector or inspector.

These terms mean any person from the civilian or military branch of the Coast Guard assigned under the superintendence and direction of an Officer in Charge, Marine Inspection, or any other person as may be designated for the performance of duties with respect to inspection, enforcement, and administration of Subtitle II of Title 46, U.S. Code, Title 46 and Title 33 U.S. Code, and regulations issued under these statutes.

[CGD 95–028, 62 FR 51205, Sept. 30, 1997]

§ 90.10–23 Motorboat.

This term means any vessel indicated in Column 5 of table 90.05–1(a) 65 feet in length or less which is propelled by machinery (including steam). The length shall be measured from end to end over the deck excluding sheer. This term includes a boat temporarily or permanently equipped with a detachable motor. For the purpose of this subchapter, motorboats are included under the term ''vessel'' unless specifically noted otherwise. The various classes of motorboats are as follows:

Class A—Any motorboat less than 16 feet in length.

Class 1—Any motorboat 16 feet or over and less than 26 feet in length.

Class 2—Any motorboat 26 feet or over and less than 40 feet in length.

Class 3—Any motorboat 40 feet or over and not more than 65 feet in length.

[CGFR 65–50, 30 FR 16970, Dec. 30, 1965, as amended by CGD 95–028, 62 FR 51205, Sept. 30, 1997]

§ 90.10–25 Ocean.

Under this designation shall be included all vessels navigating the waters of any ocean or the Gulf of Mexico more than 20 nautical miles offshore.

§ 90.10–27 Officer in Charge, Marine Inspection (OCMI).

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

[CGD 95–028, 62 FR 51205, Sept. 30, 1997]

§ 90.10–29 Passenger.

(a) The term *passenger* means—

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

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

(ii) A child under 1 year of age.

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

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

(ii) The master; or

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

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

[CGD 84–069, 61 FR 25288, May 20, 1996]

§ 90.10–30 Pilot boarding equipment and point of access.

(a) *Pilot Boarding Equipment* means a pilot ladder, accommodation ladder, pilot hoist, or combination of them as required by this subchapter.

(b) *Point of Access* means the place on deck of a vessel where a person steps onto or off of pilot boarding equipment.

[CGD 79–032, 49 FR 25455, June 21, 1984]

§ 90.10–33 Rivers.

Under this designation shall be included all vessels whose navigation is restricted to rivers and/or canals exclusively, and to such other waters as may be so designated by the Coast Guard District Commander.

§ 90.10–35 Recognized classification society.

The term *recognized classification society* means the American Bureau of Shipping or other classification society recognized by the Commandant.

§ 90.10–36 Seagoing barge.

A seagoing barge is a nonself-propelled vessel of at least 100 gross tons making voyages beyond the Boundary Line (as defined in 46 CFR part 7). The phrase *nonself-propelled vessel* means a vessel without sufficient means for self-propulsion and is required to be towed.

[CGFR 65–50, 30 FR 16970, Dec. 30, 1965, as amended by CGD 95–028, 62 FR 51206, Sept. 30, 1997]

§ 90.10–37 Vessel.

Where the word *vessel* is used in this subchapter, it shall be considered to include all vessels indicated in Column 5 of Table 90.05–1(a), except as otherwise noted in this subpart.

§ 90.10–38 Specially suitable for vehicles.

A space which is *specially suitable for vehicles* is one 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 92.15, 95.05, 95.15, 96.05, 97.36, 97.37, and 97.80 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 provisions of 49 CFR 176.905.

[CGFR 66–33, 31 FR 15284, Dec. 5, 1966, as amended by CGD 86–033, 53 FR 36025, Sept. 16, 1988]

§ 90.10–40 Offshore supply vessels.

(a) An offshore supply vessel is a vessel that is propelled by machinery other than steam, that is of 15 gross tons and less than 500 gross tons (as measured under the Standard, Dual, or Simplified Measurement System under part 69, subpart C, D, or E, of this chapter) or is less than 6,000 gross tons (as measured under the Convention Measurement System under part 69, subpart B, of this chapter) and that regularly carries goods, supplies or equipment in support of exploration, exploitation, or production of offshore mineral or energy resources.

(b) An existing offshore supply vessel is one contracted for, or the keel of which was laid, before March 15, 1996.

(c) A new offshore supply vessel is one—

(1) That was contracted for, or the keel of which was laid, on or after March 15, 1996; or

(2) That underwent a major conversion initiated on or after March 15, 1996.

[CGD 82–004 and CGD 86–074, 62 FR 49321, Sept. 19, 1997]

§ 90.10–42 Tankerman.

The following ratings are established in part 13 of this chapter. The terms for the ratings identify persons holding valid merchant mariners' documents for service in the ratings issued under that part:

(a) Tankerman-PIC.

(b) Tankerman-PIC (Barge).

(c) Restricted Tankerman-PIC.

(d) Restricted Tankerman-PIC (Barge)

(e) Tankerman-Assistant.

(f) Tankerman-Engineer.

[CGD 79–116, 60 FR 17157, Apr. 4, 1995]

Subpart 90.15—Equivalents

§ 90.15–1 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 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 is 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 90.20—General Marine Engineering Requirements

§ 90.20–1 Marine engineering details.

(a) 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 90.25—General Electrical Engineering Requirements

§ 90.25–1 Electrical engineering details.

(a) All electrical engineering details and installations shall be designed and

installed in accordance with subchapter J (Electrical Engineering) of this chapter.

Subpart 90.27—Lifesaving Appliances and Arrangements

§ 90.27–1 Lifesaving appliances and arrangements.

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

[CGD 84–069, 61 FR 25288, May 20, 1996]

Subpart 90.35—American Bureau of Shipping's Standards

§ 90.35–1 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.

§ 90.35–5 Where obtainable.

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 be also examined at the Office of the Commandant (CG–5PS), 2100 2nd St. SW., Stop 7126, Washington, DC 20593–7126, or at the Office of any Coast Guard District Commander or Officer in Charge, Marine Inspection.

[USCG–2012–0832, 77 FR 59779, Oct. 1, 2012]

PART 91—INSPECTION AND CERTIFICATION

Subpart 91.01—General Provisions; Certificate of Inspection

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91.60–45 American Bureau of Shipping.

AUTHORITY: 33 U.S.C. 1321(j); 46 U.S.C. 3205, 3306, 3307; 46 U.S.C. Chapter 701; Executive Order 12234; 45 FR 58801; 3 CFR, 1980 Comp., p. 277; Executive Order 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; Department of Homeland Security Delegation No. 0170.1.

SOURCE: CGFR 65–50, 30 FR 16974, Dec. 30, 1965, unless otherwise noted.

EDITORIAL NOTE: Nomenclature changes to part appear by USCG–2012–0832, 77 FR 59779, Oct. 1, 2012.

Subpart 91.01—General Provisions; Certificate of Inspection

§91.01–1 Preemptive effect.

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

[USCG–2006–24797, 77 FR 33877, Jun. 7, 2012]

§91.01–2 When required.

(a) Except as noted in this subpart or subpart 91.05, no vessel subject to inspection and certification shall be operated without a valid certificate of inspection.

[CGFR 65–50, 30 FR 16974, Dec. 30, 1965. Redesignated by USCG–2006–24797, 77 FR 33877, Jun. 7, 2012]

§91.01–5 Posting.

(a) On vessels of over 25 gross tons, the original certificate of inspection shall, in general, be framed under glass and posted in a conspicuous place where it will be most likely to be observed. On vessels not over 25 gross tons, and on other vessels such as barges, where the framing of the certificate under glass would be impracticable, the original certificate of inspection shall be kept on board to be shown on demand.

§91.01–10 Period of validity for a Certificate of Inspection.

(a) Certificates of inspection will be issued for a period of 5 years. Application may be made by the master, owner, or agent for inspection and issuance of a new certificate of inspection at any time during 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.

(c)(1) In the case of the following vessels, modification of the period of validity of the certificate of inspection

will be permitted as set forth in this paragraph:

(i) Nonself-propelled vessels of 100 gross tons and over proceeding on the high seas or ocean for the sole purpose of changing place of employment.

(ii) Nonself-propelled vessels of 100 gross tons and over making rare or infrequent voyages on the high seas or ocean and returning to the port of departure.

(2) The certificate of inspection may be issued for a specific period of time to cover a described situation or for one voyage only but in no case to exceed 5 years. The certificate of inspection will include the conditions under which the vessel must operate. Unless the vessel is in compliance with this Subchapter insofar as it applies to seagoing barges of 100 gross tons and over, such vessel shall not carry any person on board while underway, and the certificate of inspection will be endorsed as an unmanned seagoing barge.

[CGFR 65–50, 30 FR 16974, Dec. 30, 1965, as amended by CGFR 68–82, 33 FR 18901, Dec. 18, 1968; CGD 95–012, 60 FR 48051, Sept. 18, 1995; USCG 1999–4976, 65 FR 6501, Feb. 9, 2000]

§ 91.01–15 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.

§ 91.01–20 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 certificate of inspection did not expire within 15 days after the vessel left the last port of the United States, and that the voyage shall be completed within 30 days after the expiration of the certificate of inspection.

§ 91.01–25 Emergency carriage of more than 16 persons in addition to the crew on vessels not engaged in international voyages.

(a) When a District Commander finds that an emergency situation exists, he authorizes the local Officer in Charge, Marine Inspection, to issue amendments to vessels' certificates of inspection authorizing the carriage of more than 16 persons in addition to the crew.

(b) Upon receipt of an application from a vessel's owner or operator, the Local Officer in Charge, Marine Inspection, amends the vessel's certificate of inspection after—

(1) Additional lifesaving and firefighting equipment found necessary by the OCMI has been provided;

(2) A stability evaluation has been performed; and

(3) Any other conditions considered necessary by the OCMI have been satisfied.

[CGD 76–004, 41 FR 32744, Aug. 5, 1976]

Subpart 91.05—Permit To Proceed to Another Port for Repair

§ 91.05–1 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.

§ 91.05–5 To whom issued.

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

§ 91.05–10 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.

§ 91.05–15 Posting.

(a) The permit shall be carried in a manner similar to that described in § 91.01–5 for a certificate of inspection.

Subpart 91.15—Inspection of Vessels

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

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

[CGD 84–069, 61 FR 25289, May 20, 1996]

§91.15–5 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 from Commandant (CG–ENG), 2100 2nd St., SW., Stop 7126, Washington, DC 20593–7126; 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]

Subpart 91.20—Initial Inspection

§91.20–1 Prerequisite of certificate of inspection.

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

§91.20–5 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.

§91.20–10 Plans.

(a) Before application for inspection is made, and before construction is started, the owner or builder shall have plans approved by the Commandant indicating the proposed arrangement and construction of the vessel. The procedure for submitting plans and the list of plans to be supplied is set forth in subpart 91.55.

§91.20–15 Scope of inspection.

(a) 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.

(b) When equipment is installed which is not required by applicable regulations in this subchapter, that equipment shall be inspected and tested as required for such equipment by applicable regulations in subchapter H (Passenger Vessels) of this chapter. For example, fire-detecting systems shall be inspected and tested as required by subpart 71.20 of subchapter H (Passenger Vessels) of this chapter.

[CGFR 65–50, 30 FR 16974, Dec. 30, 1965, as amended by CGFR 68–32, 33 FR 5718, Apr. 12, 1968; CGFR 68–82, 33 FR 18901, Dec. 18, 1968; CGD 71–161R, 37 FR 28262, Dec. 21, 1972; 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]

§ 91.20–20 Specific tests and inspections.

The applicable tests and inspections as set forth in subpart 91.25 of this part 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) For installation of carbon dioxide fire extinguishing system piping, see 46 CFR 95.15–15. For clean agent fire extinguishing piping, see 46 CFR 95.16–15.

(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 tests of tanks containing certain dangerous cargoes in bulk, see part 98 of this subchapter.

[CGFR 65–50, 30 FR 16974, Dec. 30, 1965, as amended by CGD 84–069, 61 FR 25289, May 20, 1996; USCG–2006–24797, 77 FR 33877, Jun. 7, 2012]

Subpart 91.25—Inspection for Certification

§ 91.25–1 Prerequisite of reissuance of certificate of inspection.

(a) An inspection for certification is a prerequisite of the reissuance of a certificate of inspection.

§ 91.25–5 Application for a Certificate of Inspection.

You must submit a written application for an inspection for certification to the cognizant Officer in Charge, Marine Inspection. To renew a Certificate of Inspection, you must submit an application at least 30 days before the expiration of the tank vessel's current certificate. You must use Form CG–3752, Application for Inspection of U.S. Vessel, and submit it to the Officer in Charge, Marine Inspection at, or nearest to, the port where the vessel is located. When renewing a Certificate of Inspection, you must schedule an inspection for certification within the 3 months before the expiration date of the current Certificate of Inspection.

[USCG 1999–4976, 65 FR 6501, Feb. 9, 2000]

§ 91.25–10 Scope of inspection.

The inspection for certification 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, lifesaving appliances, fire-detecting and extinguishing equipment, pilot boarding equipment, pollution prevention 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 vessel 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 65–50, 30 FR 16974, Dec. 30, 1965, as amended by CGFR 68–32, 33 FR 5718, Apr. 12, 1968; CGFR 68–82, 33 FR 18901, Dec. 18, 1968; CGD 71–161R, 37 FR 28262, Dec. 21, 1972; 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]

§ 91.25–15 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 25289, May 20, 1996]

§ 91.25–20 Fire extinguishing equipment.

(a) At each inspection for certification, periodic inspection and at other times necessary, the inspector will determine that all fire-extinguishing equipment is in suitable condition and may require any tests necessary to determine the condition of the equipment. The inspector will determine if the tests and inspections required by § 97.15–60 of this subchapter have been conducted. At each inspection for certification and periodic inspection, the inspector will check fire-extinguishing equipment with the following tests and inspections:

(1) All hand portable fire extinguishers and semi-portable fire extinguishing systems shall be checked as noted in Table 91.25–20(a)(1). In addition, the hand portable fire extinguishers and semi-portable fire extinguishing systems shall be examined for excessive corrosion and general condition.

TABLE 91.25–20(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 exceeds 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.
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 [2] (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 shall be removed from all vessels. (See § 95.50–5(e) of this subchapter.)

(2) Fixed fire-extinguishing systems shall be checked as noted in Table 91.25–20(a)(2). In addition, all parts of the fixed fire-extinguishing systems, shall be examined for excessive corrosion and general conditions.

TABLE 91.25–20(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

TABLE 91.25–20(a)(2)—Continued

Type system	Test
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) On all fire-extinguishing systems, all piping controls, valves, and alarms shall be checked to ascertain that the system is in operating condition. In this respect steam smothering lines shall 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 shall be operated and the pressure checked at the most remote and highest outlets. All firehose shall 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.

[CGFR 65–50, 30 FR 16974, Dec. 30, 1965, as amended by CGFR 68–32, 33 FR 5718, Apr. 18, 1968; CGD 78–154, 44 FR 13491, Mar. 12, 1979; CGD 84–044, 53 FR 7748, Mar. 10, 1988; USCG 1999–4976, 65 FR 6501, Feb. 9, 2000; 65 FR 11904, Mar. 7, 2000; USCG–2006–24797, 77 FR 33877, Jun. 7, 2012]

§ 91.25–25 Hull equipment.

(a) At each inspection for certification and periodic inspection, the inspectors shall conduct the following tests and inspections of hull equipment:

(1) 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.

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

(3) 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 16974, Dec. 30, 1965, as amended by CGD 95–028, 62 FR 51206, Sept. 30, 1997; USCG 1999–4976, 65 FR 6501, Feb. 9, 2000]

§ 91.25–30 Electrical engineering equipment.

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

§ 91.25–35 Marine engineering equipment.

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

§ 91.25–37 Tanks containing dangerous cargoes.

(a) For inspection and tests of tanks containing certain dangerous cargoes in bulk, see part 98 of this subchapter.

§ 91.25–38 Pollution prevention.

At each inspection for certification and periodic inspection, 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, as amended by USCG 1999–4976, 65 FR 6501, Feb. 9, 2000]

§ 91.25–40 Sanitary inspection.

(a) At each inspection for certification and periodic inspection, the quarters, toilets, and washing spaces, galleys, serving pantries, lockers, etc., shall be examined by the inspector to be assured that they are in a sanitary condition.

[CGFR 65–50, 30 FR 16974, Dec. 30, 1965, as amended by USCG 1999–4976, 65 FR 6501, Feb. 9, 2000]

§ 91.25–45 Fire hazards.

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

[CGFR 65–50, 30 FR 16974, Dec. 30, 1965, as amended by USCG 1999–4976, 65 FR 6501, Feb. 9, 2000]

§ 91.25–50 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.

Subpart 91.27—Annual and Periodic Inspections

§ 91.27–1 Annual and periodic inspections.

(a) *Annual inspection.* Your vessel must undergo an annual inspection within the 3 months before or after

each anniversary date, except as required in paragraph (b) of this section.

(1) You must contact the cognizant Officer in Charge, Marine Inspection to schedule an inspection at a time and place which he or she approves. No written application is required.

(2) The scope of the annual inspection is the same as the inspection for certification as specified in § 91.25–10 but in less detail unless the cognizant marine inspector finds deficiencies or determines that a major change has occurred since the last inspection. If deficiencies are found or a major change to the vessel has occurred, the marine inspector will conduct an inspection more detailed in scope to ensure that the vessel is in satisfactory condition and fit for the service for which it is intended. If your vessel passes the annual inspection, the marine inspector will endorse your current Certificate of Inspection.

(3) If the annual inspection reveals deficiencies in your vessel's maintenance, you must make any or all repairs or improvements within the time period specified by the Officer in Charge, Marine Inspection.

(4) Nothing in this subpart limits the marine inspector from conducting such tests or inspections he or she deems necessary to be assured of the vessel's seaworthiness.

(b) *Periodic inspection.* Your vessel must undergo a periodic inspection within 3 months before or after the second or third anniversary of the date of your vessel's Certificate of Inspection. This periodic inspection will take the place of an annual inspection.

(1) You must contact the cognizant Officer in Charge, Marine Inspection to schedule an inspection at a time and place which he or she approves. No written application is required.

(2) The scope of the periodic inspection is the same as that for the inspection for certification, as specified in § 91.25–10. The Officer in Charge, Marine Inspection will insure that the vessel is in satisfactory condition and fit for the service for which it is intended. If your vessel passes the periodic inspection, the marine inspector will endorse your current Certificate of Inspection.

(3) If the periodic inspection reveals deficiencies in your vessel's maintenance, you must make any or all repairs or improvements within the time period specified by the Officer in Charge, Marine Inspection.

(4) Nothing in this subpart limits the marine inspector from conducting such tests or inspections he or she deems necessary to be assured of the vessel's seaworthiness.

[USCG 1999–4976, 65 FR 6501, Feb. 9, 2000]

§ 91.27–5 Certificate of Inspection: Conditions of validity.

To maintain a valid Certificate of Inspection, you must complete your annual and periodic inspections within the periods specified in § 91.27–1 (a) and (b) and your Certificate of Inspection must be endorsed.

[USCG 1999–4976, 65 FR 6502, Feb. 9, 2000]

§ 91.27–13 Alternative annual inspection for offshore supply vessels less than 400 gross tons in foreign ports.

(a) The owner or operator of an offshore supply vessel of less than 400 gross tons, except liftboats as defined in § 90.10–20 of this chapter, may request authorization to conduct an alternative annual inspection in place of the annual inspection described in § 91.27–1(a) of this chapter. You must submit your request to the Officer in Charge, Marine Inspection responsible for conducting inspections in the country in which the vessel is operating and will be examined. To qualify for the alternative annual inspection, you must meet the following requirements:

(1) The request for authorization must be in writing and received by the cognizant Officer in Charge, Marine Inspection before the end of the twelfth month of each COI anniversary year.

(2) The vessel is expected to be continuously employed outside of the United States during the 3 months before and after each anniversary date of the issuance of the COI.

(b) In determining whether to grant authorization for the alternative annual inspection, the Officer in Charge, Marine Inspection will consider the following:

(1) Information contained in previous inspection and drydock examination reports, including the Officer in

Charge, Marine Inspection's recommendation for participation in the alternative midperiod examination program, and the alternative annual inspection program.

(2) The nature, number, and severity of any marine casualties or accidents, as defined in §4.03–1 of this chapter, which the vessel has experienced in the last 3 years.

(3) The nature, number, and severity of any outstanding inspection requirements for the vessel.

(4) The owner or operator's history of compliance and cooperation in the alternative midperiod examination program and the alternative annual inspection program, which includes—

(i) The prompt correction of deficiencies;

(ii) The reliability of previously submitted alternative examination and annual inspection reports; and

(iii) The reliability of representations that the vessel under consideration will be, and other vessels previously examined under this section were, employed outside of the United States for the 3 month period before and after each anniversary date.

(c) If authorization is granted, the Officer in Charge, Marine Inspection must provide the applicant written authorization to proceed with the alternative annual inspection, including special instructions when appropriate.

(d) The following conditions must be met for the alternative annual inspection to be accepted by the Coast Guard in lieu of conducting an annual inspection in accordance with §91.27–1(a) of this subpart.

(1) The alternative annual inspection must be conducted within 3 months before and after each anniversary date.

(2) The alternative annual inspection must be of the scope detailed in §91.27–1(a) of this subpart and must be conducted by the vessel's master, operator, or a designated representative of the owner or operator.

(3) Upon completion of the alternative annual inspection, the person or persons conducting the inspection must prepare a comprehensive report describing the conditions found. This inspection report must contain sufficient detail to allow an evaluation to be made by the Officer in Charge, Marine Inspection to whom the report is submitted that the vessel is fit for the service and route specified on the Certificate of Inspection. The report must include reports and receipts documenting the servicing of lifesaving and fire protection equipment, and any photographs or sketches necessary to clarify unusual circumstances. Each person preparing the report must sign it and certify that the information contained therein is complete and accurate.

(4) Unless the vessel's master participated in the alternative annual inspection and the preparation of the inspection report, the master must review the report for completeness and accuracy. The master must sign the report to indicate review and forward it to the vessel's owner or operator who requested authorization to conduct the inspection.

(5) The owner or operator of an offshore supply vessel inspected under this subpart must review and submit the report required by paragraph (d)(3) of this section to the Officer in Charge, Marine Inspection who authorized the owner or operator to conduct the alternative annual inspection. The inspection report must be received by the cognizant Officer in Charge, Marine Inspection before the first day of the fifth month following the anniversary date. The forwarding letter or endorsement must be certified and contain the following information—

(i) That the person or persons who conducted the inspection acted on behalf of the vessel's owner or operator;

(ii) That the inspection report was reviewed by the owner or operator;

(iii) That the discrepancies noted during the inspection have been corrected or will be corrected within a stated time frame; and

(iv) That the owner or operator has sufficient personal knowledge of conditions aboard the vessel at the time of the inspection or has made necessary inquiries to justify forming a belief that the inspection report is true and correct.

(e) The form of certification required under this subpart is as follows:

I certify that the above is true and complete to the best of my knowledge and belief.

(f) Deficiencies and hazards discovered during an alternative annual inspection conducted pursuant to this section must be corrected or eliminated, if practical, before the inspection report is submitted to the Officer in Charge, Marine Inspection in accordance with paragraph (d)(5) of this section. Deficiencies and hazards that are not corrected or eliminated by the time the inspection report is submitted must be listed in the report as ''outstanding.'' Upon receipt of an inspection report indicating outstanding deficiencies or hazards, the Officer in Charge, Marine Inspection will inform the owner or operator of the vessel in writing of the time period in which to correct or eliminate the deficiencies or hazards and the method for establishing that the corrections have been accomplished. Where a deficiency or hazard remains uncorrected or uneliminated after the expiration of the time specified for correction or elimination, the Officer in Charge, Marine Inspection will initiate appropriate enforcement measures.

(g) Upon receipt of the report required by paragraph (d)(3) of this section, the Officer in Charge, Marine Inspection must evaluate it and make the following determination:

(1) Whether the alternative annual inspection is accepted in lieu of the annual inspection required by § 91.27–1(a) of this subpart.

(2) Whether the vessel is in satisfactory condition.

(3) Whether the vessel continues to be reasonably fit for its intended service and route. The Officer in Charge, Marine Inspection may request any additional information needed to make the determinations required by this section. The Officer in Charge, Marine Inspection will inform the owner or operator in writing of the determinations required by this section.

(h) If the Officer in Charge, Marine Inspection determines, in accordance with paragraph (g) of this section, that the alternative annual inspection is not accepted in lieu of the annual inspection required by § 91.27–1(a) of this subpart, the vessel must be reinspected by the cognizant Officer in Charge, Marine Inspection as soon as practical.

(i) If the Officer in Charge, Marine Inspection determines, in accordance with paragraph (g) of this section, that the alternative annual inspection is accepted in lieu of the annual inspection required by § 91.27–1(a) of this subpart, the master must complete the applicable COI endorsement.

[USCG 1999–4976, 65 FR 6502, Feb. 9, 2000; 65 FR 11904, Mar. 7, 2000]

§ 91.27–15 Inspectors 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 seaworthiness of the vessel.

Subpart 91.30—Inspection After Accident

§ 91.30–1 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.

Subpart 91.35—Sanitary Inspections

§ 91.35–1 When made.

(a) An inspection of quarters, toilet and washing spaces, serving pantries, galleys, etc., shall be made 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.

Subpart 91.40—Drydocking

§ 91.40–1 Definitions relating to hull examinations.

As used in this part—

(a) *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.

(b) *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 or fuel oil tanks.

(c) *Cargo tank internal examination* means an examination of the vessel while afloat or in drydock and consists of an examination of the internals of all cargo tanks; except, if the vessel is certificated to carry cargoes regulated under part 38 or subchapter O of this chapter, the cargo tank internal examination must be accomplished as specified in parts 38 and 151 of this chapter respectively.

(d) *Underwater survey* means the examination, while the vessel is afloat, of all accessible parts of the vessel's underwater body and all through-hull fittings.

[CGD 84–024, 52 FR 39653, Oct. 23, 1987, as amended by CGD 84–024, 53 FR 32231, Aug. 24, 1988; CGD 95–028, 62 FR 51206, Sept. 30, 1997]

§ 91.40–3 Drydock examination, internal structural examination, cargo tank internal examination, and underwater survey intervals.

(a) Except as provided in paragraphs (b) through (g) of this section, each vessel must undergo drydock, internal structural, and cargo tank internal examinations as follows:

(1) Except under paragraph (a)(2) of this section, vessels that operate in salt water must be examined in accordance with the intervals set forth in Table 91.40–3(a) of this section. Where Table 91.40–3(a) indicates a 2.5 year examination interval, it means a vessel must undergo two examinations within any five year period. No more than three years may elapse between any two examinations.

TABLE 91.40–3(a)—SALT WATER SERVICE VESSELS EXAMINATION INTERVALS IN YEARS

	Single hull ship and barge	Double hull barge with internal framing [1]	Double hull barge with external framing [2]	Single hull barge with independent tanks [3]	Wood hull ship and barge	Unmanned deck cargo barge [4]	Unmanned double hull freight barge [5]
Drydock	2.5	5.0	5.0	5.0	2.5	5.0	5.0
Internal structural	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Cargo tank internal	[6] 2.5	[6] 5.0	[6] 10.0	[6] 10.0	[6] 2.5	.....	[6] 5.0

Note:
[1] Applicable to double hull tank barges (double sides, ends, and bottoms) when the structural framing is on the internal tank surface.
[2] Applicable to double hull tank barges (double sides, ends, and bottoms) when the structural framing is on the external tank surface accessible for examination from voids, double bottoms, and other similar spaces.
[3] Applicable to single hull tank barges with independent cargo tanks which have a cargo containment envelope that is not a contiguous part of the hull structure and which has adequate clearance between the tanks and between the tanks and the vessel's hull to provide access for examination of all tank surfaces and the hull structure.
[4] Applicable to unmanned/non-permissively manned deck cargo barge which carries cargo only above the weather deck and which provides complete access for examination of the inside of the hull structure.
[5] Applicable to unmanned/non-permissively manned double hull freight barges (double sides, ends, and bottoms) the arrangement of which provides access for a complete internal structural examination as defined in § 91.40–1(b) without the necessity of entering cargo tanks or holds.
[6] Or as specified in Part 151.

(2) Vessels that operate in fresh water at least six months in every 12 month period since the last drydock examination must be examined in accordance with the intervals set forth in Table 91.40–3(b) of this section. Where Table 91.40–3(b) indicates a 2.5 year examination interval, it means a vessel must undergo two examinations within any five year period. No more than three years may elapse between any two examinations.

TABLE 91.40–3(b)—FRESH WATER SERVICE VESSELS EXAMINATION INTERVALS IN YEARS

	Single hull ship and barge	Double hull barge with internal framing [1]	Double hull barge with external framing [2]	Single hull barge with independent tanks [3]	Wood hull ship and barge	Unmanned deck cargo barge [4]	Unmanned double hull freight barge [5]
Drydock	5.0	10.0	10.0	10.0	2.5	10.0	10.0
Internal structural	5.0	5.0	5.0	5.0	2.5	5.0	5.0
Cargo tank internal	[6] 5.0	[6] 5.0	[6] 10.0	[6] 10.0	[6] 2.5	.....	[6] 5.0

NOTE:
[1] Applicable to double hull tank barges (double sides, ends, and bottoms) when the structural framing is on the internal tank surface.
[2] Applicable to double hull tank barges (double sides, ends, and bottoms) when the structural framing is on the external tank surface accessible for examination from voids, double bottoms, and other similar spaces.
[3] Applicable to single hull tank barges with independent cargo tanks which have a cargo containment envelope that is not a contiguous part of the hull structure and which has adequate clearance between the tanks and between the tanks and the vessel's hull to provide access for examination of all tank surfaces and the hull structure.
[4] Applicable to unmanned/non-permissively manned deck cargo barge which carries cargo only above the weather deck and which provides complete access for examination of the inside of the hull structure.
[5] Applicable to unmanned/non-permissively manned double hull freight barges (double sides, ends, and bottoms) the arrangement of which provides access for a complete internal structural examination as defined in § 91.40–1(b) without the necessity of entering cargo tanks or holds.
[6] Or as specified in Part 151.

(b) During each inspection or reinspection for certification, all wing voids, rakes, cofferdams, and other void spaces on barges must be opened and checked from on-deck for the presence of water or cargo indicating hull damage or cargo tank leakage. If water or cargo is not present, these spaces need not be gas freed, ventilated, cleaned, or otherwise prepared for personnel entry. If water or cargo is present, an internal structural examination may be required.

(c) If, during an internal structural, cargo tank internal examination, or underwater survey, damage or deterioration to the hull plating, structural members, or cargo tanks 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.

(d) Vessels less than 15 years of age (except wooden hull vessels) that are in salt water service with a 2.5 year drydock interval (as indicated in Table 91.40–3(a) of this section) or that are in fresh water service with a five year drydock interval (as indicated in Table 91.40–3(b) of this section) may be considered for an underwater survey instead of alternate drydock examinations, provided the vessel is fitted with an effective hull protection system. Vessel owners or operators must apply to the Officer in Charge, Marine Inspection, for approval of underwater surveys instead of alternate drydock examinations for each vessel. The application must include the following information:

(1) The procedure to be followed in carrying out the underwater survey.

(2) The location where the underwater survey will be accomplished.

(3) The method to be used to accurately determine the diver location relative to the hull.

(4) The means that will be provided for examining through-hull fittings.

(5) The means that will be provided for taking shaft bearing clearances.

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

(7) A description of the hull protection system.

(e) Vessels otherwise qualifying under paragraph (d) of this section, that are 15 years of age or older, may be considered for continued participation in or entry into the underwater survey program on a case-by-case basis if—

(1) Before the vessel's next scheduled drydocking, the owner or operator submits a request for participation or continued participation to Commandant (CG–CVC);

(2) During the vessel's next drydocking after the request is submitted, no appreciable hull deterioration is indicated as a result of a complete set of hull gaugings; and

(3) The results of the hull gauging and the results of the Coast Guard drydock examination together with the recommendation of the Officer in Charge, Marine Inspection, are submitted to Commandant (CG–CVC) for final approval.

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

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

[CGD 84–024, 52 FR 39653, Oct. 23, 1987, as amended by CGD 84–024, 53 FR 32231, Aug. 24, 1988; CGD 84–024, 53 FR 34872, Sept. 8, 1988; CGD 95–072, 60 FR 50464, Sept. 29, 1995; CGD 96–041, 61 FR 50729, Sept. 27, 1996; CGD 95–028, 62 FR 51206, Sept. 30, 1997; USCG–2009–0702, 74 FR 49231, Sept. 25, 2009]

§91.40–5 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, cargo tank internal 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 cargo tank internal examination, or underwater survey or whenever repairs are made to the barge's hull.

[CGD 84–024, 52 FR 39654, Oct. 23, 1987]

Subpart 91.43—Integral Fuel Oil Tank Examinations

§91.43–1 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. 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 but less than 25 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, 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, that the general condition of the tanks is satisfactory.

(f) All double-bottom fuel oil tanks on vessels 25 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 double-bottom fuel oil tank in way of each cargo hold/tank, and by external examination of all other double-bottom fuel oil tanks, that the general condition of the tanks is satisfactory.

[CGD 84–024, 52 FR 39654, Oct. 23, 1987, as amended by CGD 84–024, 53 FR 32232, Aug. 24, 1988]

Subpart 91.45—Repairs and Alterations

§ 91.45–1 Notice 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.

§ 91.45–5 Inspection required.

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

Subpart 91.50—Special Operating Requirements

§ 91.50–1 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 02669, 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 liquids or chemicals in bulk; or,

(2) Within spaces adjacent to cargo tanks which have been used to carry Grade D combustible liquid cargo, except where the distance between such cargo tanks and the work to be performed is not less than twenty-five (25) feet; or,

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

(4) To pipelines, heating coils, pumps, fittings, or other appurtenances connected to such cargo or fuel tanks; or,

(5) On miscellaneous vessels such as cable, salvage, pile driving, and oil drilling rig vessels that have been specially authorized to carry Grade B or Grade C flammable liquid cargo in bulk by the Commandant, within or on the boundaries of such cargo tanks or within spaces adjacent to such cargo 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 indicates 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.

[CGFR 65–50, 30 FR 16974, Dec. 30, 1965, as amended by CGD 95–072, 60 FR 50464, Sept. 29, 1995]

Subpart 91.55—Plan Approval

§ 91.55–1 General.

(a) The following list of required plans is general in character, but includes all plans 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 following list of required plans, 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 16974, Dec. 30, 1965, as amended by CGD 95–028, 62 FR 51206, Sept. 30, 1997; USCG–2008–0906, 73 FR 56510, Sept. 29, 2008]

§ 91.55–5 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 as required by Subchapter S of this chapter.

(d) *Fire control*. (1) General arrangement plans showing for each deck the control stations, the various fire sections enclosed by fire resisting bulkheads, the arrangement of the alarm and extinguishing systems, the fire extinguishers, means of access to different compartments and decks and the ventilation system including location of ventilation shutdowns, positions of dampers and the numbers identifying each system.

[1] The asterisk (*) indicates items which may require approval by the American Bureau of Shipping for vessels classed by that society.

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

(3) Details of alarm systems.

(4) Details of extinguishing systems, including fire mains, carbon dioxide, clean agent, foam, and sprinkling systems.

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

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

(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.

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

(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 § 92.03–1 of this subchapter.

[CGFR 65–50, 30 FR 16974, Dec. 30, 1965, as amended by CGD 79–023, 48 FR 51008, Nov. 4, 1983; CGD 85–099, 55 FR 32248, Aug. 8, 1990; CGD 85–099, 55 FR 40260, Oct. 2, 1990; CGD 88–032, 56 FR 35825, July 29, 1991; 56 FR 46354, Sept. 11, 1991; USCG–2006–24797, 77 FR 33878, Jun. 7, 2012]

§ 91.55–10 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 § 91.45–1. The general scope of the plans shall be as noted in § 91.55–5.

§ 91.55–15 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 directly to the Commandant (CG–ENG), U.S. Coast Guard, 2100 2nd St., SW., Stop 7126, Washington, DC 20593–7126. 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) The plans may be submitted by visitors directly to Commanding Officer, U.S. Coast Guard Marine Safety Center, 1900 Half Street, SW., Suite 1000, Room 525, Washington, DC 20024, or transmitted by mail to: Commanding Officer, U.S. Coast Guard Marine Safety Center, 2100 2nd St., SW., Stop 7102, Washington, DC 20593–7102, 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.

(4) 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.

[CGFR 65–50, 30 FR 16974, Dec. 30, 1965, as amended by CGD 78–128, 47 FR 21204, May 17, 1982; CGD 82–063b, 48 FR 4781, Feb. 3, 1983; CGD 88–070, 53 FR 34534, Sept. 7, 1988; CGD 89–025, 54 FR 19571, May 8, 1989; CGD 96–041, 61 FR 50729, Sept. 27, 1996; USCG–2007–29018, 72 FR 53966, Sept. 21, 2007; USCG–2009–0702, 74 FR 49231, Sept. 25, 2009]

§91.55–20 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 required distribution.

[CGFR 65–50, 30 FR 16974, Dec. 30, 1965, as amended by CGFR 69–116, 35 FR 6861, Apr. 30, 1970]

Subpart 91.60—Certificates Under International Convention for Safety of Life at Sea, 1974

§91.60–1 Application.

The provisions of this subpart shall apply to all cargo vessels on an international voyage. (See §91.05–10 of this chapter.)

[CGD 95–012, 60 FR 48051, Sept. 18, 1995, as amended by USCG 1999–4976, 65 FR 6503, Feb. 9, 2000]

§91.60–5 Cargo Ship Safety Construction Certificate.

(a) All vessels on an international voyage are required to have a Cargo Ship Safety Construction Certificate. This certificate shall be issued by the U.S. Coast Guard or the American Bureau of Shipping to certain vessels on behalf of the United States of America as provided in Regulation 12, chapter I, of the International Convention for Safety of Life at Sea, 1974.

(b) All such vessels shall meet the applicable requirements of this chapter for vessels on an international voyage.

[CGFR 65–50, 30 FR 16974, Dec. 30, 1965, as amended by CGD 90–008, 55 FR 30661, July 26, 1990]

§91.60–10 Cargo Ship Safety Equipment Certificate.

(a) All vessels on an international voyage are required to have a Cargo Ship Safety Equipment Certificate.

(b) All such vessels shall meet the applicable requirements of this chapter for vessels on an international voyage.

§91.60–15 Cargo Ship Safety Radio Certificate.

Every vessel equipped with a radio installation on an international voyage must have a Cargo Ship Safety Radio Certificate. Each radio installation must meet the requirements of the Federal Communication Commission and the International Convention for Safety of Life at Sea.

[USCG 1999–4976, 65 FR 6503, Feb. 9, 2000]

§91.60–25 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 other required certificates.

§91.60–30 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]

§91.60–35 Availability of Certificates.

The Convention certificates must be on board the vessel and readily available for examination at all times.

[USCG 1999–4976, 65 FR 6503, Feb. 9, 2000]

§ 91.60–40 Duration of Convention certificates.

(a) The following certificates are valid for a period of not more than 60 months.

(1) A Cargo Ship Safety Construction Certificate.

(2) A Cargo Ship Safety Equipment Certificate.

(3) A Safety Management Certificate.

(4) A Cargo Ship Safety Radio Certificate.

(b) An Exemption certificate must not be valid for longer than the period of the certificate to which it refers.

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

[USCG 1999–4976, 65 FR 6503, Feb. 9, 2000]

§ 91.60–45 American Bureau of Shipping.

(a) The American Bureau of Shipping, with its home office at ABS Plaza, 16855 Northchase Drive, Houston, TX 77060, is hereby designated as an organization duly authorized to issue the ''Cargo Ship Safety Construction Certificate'' to certain cargo ships on behalf of the United States of America as provided in Regulation 12, chapter I, of the International Convention for Safety of Life at Sea, 1974, and Executive Order 12234 and the certificate shall be subject to the requirements in this subpart. The American Bureau of Shipping is authorized to place the official seal of the United States of America on the certificate. This designation and delegation to the American Bureau of Shipping shall be in effect until terminated by proper authority and notice of cancellation is published in the FEDERAL REGISTER.

(b) At the option of the owner or agent of a vessel on an international voyage and on direct application to the American Bureau of Shipping, the Bureau may issue to such vessel a Cargo Ship Safety Construction Certificate, having a period of validity of not more than 60 months after ascertaining that the vessel:

(1) Has met the applicable requirements of the Convention; and,

(2) Is currently classed by the Bureau and classification requirements have been dealt with to the satisfaction of the Bureau.

(c) When the Bureau determines that a vessel to which it has issued a Cargo Ship Safety Construction Certificate no longer complies with the Bureau's applicable requirements for classification, the Bureau shall immediately furnish to the Coast Guard all relevant information, which will be used by the Coast Guard to determine whether or not to withdraw, revoke or suspend the Cargo Ship Safety Construction Certificate.

[CGFR 65–50, 30 FR 16974, Dec. 30, 1965, as amended by CGD 90–008, 55 FR 30661, July 26, 1990; CGD 96–041, 61 FR 50729, Sept. 27, 1996; USCG–2000–7790, 65 FR 58461, Sept. 29, 2000]

PART 92—CONSTRUCTION AND ARRANGEMENT

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AUTHORITY: 46 U.S.C. 3306; E.0. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

SOURCE: CGFR 65–50, 30 FR 16983, Dec. 30, 1965, unless otherwise noted.

Subpart 92.01—Hull Structure

§ 92.01–1 Application.

(a) The provisions of this subpart, with the exception of § 92.01–90, 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 § 92.01–90.

§ 92.01–2 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 the Coast Guard, Office of Design and Engineering Standards, (CG–ENG), 2100 2nd St., SW., Stop 7126, Washington, DC 20593–7126, and is available from the sources listed below.

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

(1) International Convention for the Safety of Life at Sea (SOLAS), Consolidated Text of the International Convention for the Safety of Life at Sea, 1974, and its Protocol of 1988: Article, Annexes and Certificates. (Incorporating all Amendments in Effect from January 2001) (2001) (''IMO SOLAS 74''), incorporation by reference approved for § 92.07–1.

(2) [Reserved]

[USCG–2009–0702, 74 FR 49232, Sept. 25, 2009, as amended by USCG–2012–0832, 77 FR 59779, Oct. 1, 2012]

§ 92.01–5 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.

§ 92.01–10 Structural standards.

(a) In general, compliance with the standards established by the American Bureau of Shipping, see subpart 90.35 of this subchapter, will be considered as 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.

§ 92.01–15 Special consideration.

(a) Special consideration will be given to the structural requirements for small vessels or vessels of an unusual design not contemplated by the rules of the American Bureau of Shipping.

§ 92.01–90 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.

Subpart 92.03—Navigation Bridge Visibility

§ 92.03–1 Navigation bridge visibility.

Each cargo and miscellaneous 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 (1,640 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 and 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 foward view previously described in this section.

(4) The height of the upper edge of the front windows allows a foward 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 32248, Aug. 8, 1990]

Subpart 92.05—General Fire Protection

§ 92.05–1 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.

§ 92.05–5 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.

§ 92.05–10 Lamp room construction.

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

§ 92.05–15 Segregation of spaces containing the emergency source of electric power.

(a) The provisions of this section shall apply to all vessels contracted for on or after October 1, 1958.

(b) When a compartment containing the emergency source of electric power, or vital components thereof, adjoins a space containing either the ship's service generators or machinery necessary for the operation of the ship's service generators, all common bulkheads and/or decks shall be protected by approved ''structural insulation'' or other approved material. This protection shall be such as to be capable of preventing an excessive temperature rise in the space containing the emergency source of electric power, or vital components thereof, for a period of at least one hour in the event of fire in the adjoining space. Bulkheads or decks meeting Class A–60 requirements, as defined by § 72.05–10 of Subchapter H (Passenger Vessels) of this chapter, will be considered as meeting the requirements of this paragraph.

Subpart 92.07—Structural Fire Protection

§ 92.07–1 Application.

(a) The provisions of this subpart, with the exception of § 92.07–90, shall apply to all vessels of 4,000 gross tons and over contracted for on or after January 1, 1962. Such vessels contracted for prior to January 1, 1962, shall meet the requirements of § 92.07–90(a).

(b) The provisions of this subpart, with the exception of § 92.07–90, shall apply to all industrial vessels of 300 gross tons and over but less than 4,000 gross tons, contracted for on or after July 1, 1968, which carry in excess of 12 industrial personnel. Such vessels contracted for prior to July 1, 1968, shall meet the requirements of § 92.07–90(b).

(c) SOLAS-certificated vessels complying with method IC, as described in IMO SOLAS 74 (incorporated by reference; see 46 CFR 92.01–2), regulation II–2/42, may be considered equivalent to the provisions of this subpart.

[CGFR 67–90, 33 FR 1015, Jan. 26, 1968, as amended by CGD 95–028, 62 FR 51206, Sept. 30, 1997; USCG–2003–16630, 73 FR 65192, Oct. 31, 2008]

§ 92.07–5 Definitions.

(a) *Standard fire test.* 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.

(b) *''A'' Class divisions.* 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 flame and smoke for one hour.

(c) *''B'' Class bulkheads.* Bulkheads of the ''B'' Class shall be constructed with approved incombustible materials and made intact from deck to deck 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 one half hour.

(d) *''C'' Class divisions.* Bulkheads or decks of the ''C'' Class shall be constructed of approved incombustible materials, but need meet no requirements relative to the passage of flame.

(e) *Steel or other equivalent metal.* Where the term ''steel or other equivalent metal'' is used in this subpart, 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.

(f) *Approved material.* Where in this subpart approved materials are required, they refer to materials approved under the applicable subparts of Subchapter Q (Specifications) of this chapter, as follows:

Deck Coverings	164.006
Structural Insulations	164.007

Bulkhead Panels	164.008
Incombustible Materials	164.009
Interior Finishes	164.012

(g) *Stairtower*. A stairtower is a stairway which penetrates more than a single deck within the same enclosure.

[CGFR 65–50, 30 FR 16983, Dec. 30, 1965, as amended by CGFR 67–90, 33 FR 1015, Jan. 26, 1968; CGD 75–032, 41 FR 17910, Apr. 29, 1976]

§ 92.07–10 Construction.

(a) The hull, superstructure, structural bulkheads, decks, and deckhouses shall be constructed of steel. Alternately, the Commandant may permit the use of other suitable material in special cases, having in mind the risk of fire.

(b) Bulkheads of galleys, paint and lamp lockers, and emergency generator rooms shall be of ''A'' Class construction.

(c) The boundary bulkheads and decks separating the accommodations and control stations from cargo and machinery spaces, galleys, main pantries and storerooms, other than small service lockers, shall be of ''A'' Class construction.

(d) Within the accommodation and service areas the following conditions shall apply:

(1) Corridor bulkheads in accommodation spaces shall be of the ''A'' or ''B'' Class intact from deck to deck. Stateroom doors in such bulkheads may have a louver in the lower half.

(2) Stairtowers, elevator, dumbwaiter, and other trunks shall be of ''A'' Class construction.

(3) Bulkheads not already specified to be of ''A'' or ''B'' Class construction may be of ''A'', ''B'', or ''C'' Class construction.

(4) The integrity of any deck in way of a stairway opening, other than a stairtower, shall be maintained by means of ''A'' or ''B'' class bulkheads and doors at one level. The integrity of a stairtower shall be maintained by ''A'' Class doors at every level. The doors shall be of self-closing type. Holdback hooks, or other means of permanently holding the door open will not be permitted. However, magnetic holdbacks operated from the bridge or from other suitable remote control positions are acceptable.

(5) Interior stairs, including stringers and treads, shall be of steel.

(6) Except for washrooms and toilet spaces, deck coverings within accommodation spaces shall be of an approved type. However, overlays for leveling or finishing purposes which do not meet the requirements for an approved deck covering may be used in thicknesses not exceeding ⅜ of an inch.

(7) Ceilings, linings, and insulation, including pipe and duct laggings, shall be of approved incombustible materials.

(8) Any sheathing, furring or holding pieces incidental to the securing of any bulkhead, ceiling, lining, or insulation shall be of approved incombustible materials.

(9) 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, trim, decorations, etc., shall not be used in corridors or hidden spaces. This is not intended to preclude the use of an approved interior finish or a reasonable number of coat of paint.

(e) Wood hatch covers may be used between cargo spaces or between stores spaces. Hatch covers in other locations shall be of steel or equivalent metal construction. Tonnage openings shall be closed by means of steel plates.

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

(g) The provisions of paragraph (d) (1) through (9) of this section apply to control spaces on vessels whose initial Application for Inspection is submitted to an Officer in Charge, Marine Inspection on or after June 15, 1987.

[CGFR 65–50, 30 FR 16983, Dec. 30, 1965, as amended by CGFR 67–90, 33 FR 1015, Jan. 26, 1968; CGD 84–073, 52 FR 18364, May 15, 1987; 52 FR 22751, June 15, 1987]

§ 92.07–90 Vessels contracted for prior to July 1, 1968.

(a) For all vessels of 4,000 gross tons and over contracted for prior to January 1, 1962, existing structure arrangements and materials 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 standard as the original construction. Major alterations and conversions shall be in compliance with the provisions of this subpart to the satisfaction of the Officer in Charge, Marine Inspection.

(b) For industrial vessels of 300 gross tons and over but less than 4,000 gross tons, contracted for prior to July 1, 1968, which carry in excess of 12 industrial personnel, existing structure arrangements and materials 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 standard as the original construction. Major alterations and conversions shall be in compliance with this subpart to the satisfaction of the Officer in Charge, Marine Inspection.

[CGFR 67–90, 33 FR 1016, Jan. 26, 1968]

Subpart 92.10—Means of Escape

§ 92.10–1 Application.

(a) The provisions of this subpart, with the exception of § 92.10–90, 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 § 92.10–90.

§ 92.10–5 Two means required.

(a) There shall be at least two means of escape from all general areas accessible to the passengers, if carried, 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.

§ 92.10–10 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.

§ 92.10–15 Vertical ladders not accepted.

(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.

§ 92.10–20 No means for locking doors.

(a) No means shall be provided for locking doors giving access to either of the two 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.

§ 92.10–25 Stairway size.

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

(b) Vessels contracted for on or after January 1, 1959, shall meet the requirements of this paragraph. Special consideration for relief may be given in the case of small vessels if it is shown to be unreasonable or impracticable to meet the requirements.

(1) All interior stairways, other than those within the machinery spaces or cargo holds, shall have a minimum width of 28 inches. The angle of inclination with the horizontal of such stairways shall not exceed 50 degrees.

§ 92.10–30 Dead end corridors.

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

§ 92.10–35 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.

§ 92.10–40 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.

§ 92.10–45 Weather deck communications.

(a) Vertical communication shall be provided between the various weather decks by means of permanent inclined ladders.

§ 92.10–90 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 §§ 92.10–5 through 92.10–45 be permitted than presently exists. Nothing in this paragraph shall be construed as exempting any vessel from having 2 means of escape from all main compartments which are accessible to the passengers, if carried, or where the crew are normally quartered or employed.

Subpart 92.15—Ventilation

§ 92.15–1 Application.

The provisions of this subpart, with the exception of § 92.15–90, 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 § 92.15–90.

§ 92.15–5 Vessels using fuel having a flashpoint of 110 degrees 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 ventilation as required by this section.

(1) At least 2 ventilators fitted with cowls or their equivalent for the purpose of properly and effectively ventilating the bilges of every engine and fuel-tank compartment in order to remove any flammable or explosive gases.

(2) Vessels constructed so that the greater portions of the bilges under the engine and fuel tanks are open or exposed to the natural atmosphere at all times are not required to be fitted with ventilators.

§ 92.15–10 Ventilation for closed spaces.

(a) Except as noted in paragraph (c) of this section, 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) On unmanned cargo barges not fitted with a fixed bilge system, vents and ventilators may be omitted from void spaces.

(d) The ventilation of spaces that are ''specially suitable for vehicles'' shall be in accordance with §§ 97.80–1, 111.105–39 and 111.105–40 of this chapter, as applicable.

(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 system shall be such as to prevent air stratification as well as to prevent the 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.

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

[CGFR 65–50, 30 FR 16983, Dec. 30, 1965, as amended by CGFR 66–33, 31 FR 15284, Dec. 5, 1966; USCG–2003–16630, 73 FR 65193, Oct. 31, 2008]

§ 92.15–15 Ventilation for crew quarters and, where provided, passenger spaces.

(a) All living 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.

§ 92.15–90 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 §§ 92.15–5 through 92.15–15 be permitted than presently exists.

Subpart 92.20—Accommodations for Officers and Crew

SOURCE: CGD 95–027, 61 FR 26005, May 23, 1996, unless otherwise noted.

§ 92.20–1 Application.

(a) The provisions of this subpart apply to all vessels of 100 gross tons and over contracted for on or after November 19, 1952. Vessels of 100 gross tons and over contracted for prior to November 19, 1952 must meet the requirements of § 92.20–90.

(b) Vessels of less than 100 gross tons must meet the applicable requirements of this subpart insofar as is reasonable and practicable.

§ 92.20–5 Intent.

It is the intent of this subpart that the accommodations provided for officers and crew on all vessels must be securely constructed, properly lighted, heated, drained, ventilated, equipped, located, arranged, and insulated from undue noise, heat, and odors.

§ 92.20–10 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 purposes 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.

§ 92.20–15 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.

§ 92.20–20 Sleeping accommodations.

(a) Where practicable, each licensed officer must 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 must 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 must 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 2 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.

§ 92.20–25 Washrooms and toilet rooms.

(a) There must be provided 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 rooms to which private or semi-private facilities are attached.

(b) The toilet rooms and washrooms must 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 shall 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.

§ 92.20–30 Messrooms.

(a) Messrooms must be located as near to the galley as is 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.

§ 92.20–35 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 shall be provided.

(e) On vessels in which the crew is berthed in single occupancy rooms, a hospital space will not be required, provided that one room is designated and fitted for use as a treatment or isolation room. This room must meet the following standards:

(1) The room must be available for immediate medical use; and

(2) A washbasin with hot and cold running water must be installed either in or immediately adjacent to the space and other required sanitary facilities must be conveniently located.

§ 92.20–40 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.

[CGD 95–027, 61 FR 26005, May 23, 1996; 61 FR 32900, June 25, 1996]

§ 92.20–45 Lighting.

Each berth must have a light.

§ 92.20–50 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.

§ 92.20–55 Insect screens.

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

§ 92.20–90 Vessels contracted for prior to November 19, 1952.

(a) Vessels of less than 100 gross tons, contracted for prior to November 19, 1952, must meet the general intent of § 92.20–5 and in addition 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 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.

(b) Vessels of 100 gross tons and over, contracted for prior to March 4, 1915, must meet the following requirements:

(1) 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.

(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 §§ 92.20–5 through 92.20–55 be permitted than presently exists.

(c) 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 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. Minor repairs and alterations may be made to the same standard as the original construction.

(2) 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.

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

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

(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. Minor repairs and alterations may be made to the same standard as the original construction.

(2) Washbasins, showers, and bathtubs if substituted for showers, must be equipped with adequate plumbing including hot and cold running water.

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

(4) 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 shall 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.

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

Subpart 92.25—Rails and Guards

§ 92.25–1 Application.

(a) The provisions of this subpart, with the exception of § 92.25–90, 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 § 92.25–90.

[CGFR 65–50, 30 FR 16983, Dec. 30, 1965, as amended by CGFR 69–72, 34 FR 17484, Oct. 29, 1969; CGD 80–120, 47 FR 5723, Feb. 8, 1982]

§ 92.25–5 Where rails required.

(a) All vessels shall have efficient guard rails or bulwarks on decks and bridges. The height of rails or bulwarks shall be at least 39½ inches from the deck except that where this height would interfere with the normal operation of the vessel, a lesser height may be approved by the Commandant. At exposed peripheries of the freeboard and superstructure decks, the 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. If it can be shown to the satisfaction of the Officer in Charge, Marine Inspection, that the installation of rails of such height will be unreasonable and impracticable, having regard to the business of the vessel, rails of a lesser height or in some cases grab rails may be accepted and inboard rails may be eliminated if the deck is not generally accessible.

(b) 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 17484, Oct. 29, 1969, as amended by CGD 80–120, 47 FR 5723, Feb. 8, 1982]

§ 92.25–10 Storm rails.

(a) On vessels in ocean and coastwise service, suitable storm rails shall be installed in all passageways and at the deckhouse sides where persons on board might have normal access. Storm rails shall be installed on both sides of passageways which are 6 feet or more in width.

§ 92.25–15 Guards in dangerous places.

(a) Suitable hand covers, guards, or rails shall be installed in way of all exposed and dangerous places such as gears, machinery, etc.

§ 92.25–90 Vessels contracted for prior to July 1, 1969.

(a) 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 § 92.25–5. 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. However, in no case will greater departure from the standards of §§ 92.25–5 through 92.25–15 be permitted than presently exists.

[CGFR 69–72, 34 FR 17484, Oct. 29, 1969, as amended by CGD 80–120, 47 FR 5723, Feb. 8, 1982]

PART 93—STABILITY

AUTHORITY: 46 U.S.C. 3306, 5115; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; 49 CFR 1.46.

Subpart 93.01—Application

§ 93.01–1 General.

Each vessel must meet the applicable requirements in subchapter S of this chapter.

[CGD 79–023, 48 FR 51008, Nov. 4, 1983]

PART 95—FIRE PROTECTION EQUIPMENT

Subpart 95.01—Application

Sec.

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95.15–1 Application.
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95.17–1 Application.
95.17–5 Quantity of foam required.
95.17–10 Controls.
95.17–15 Piping.
95.17–20 Discharge outlets.
95.17–25 Additional protection required.
95.17–90 Installations contracted for prior to November 19, 1952.

Subpart 95.30—Automatic Sprinkler Systems, Details

95.30–1 Application.

Subpart 95.50—Hand Portable Fire Extinguishers and Semiportable Fire Extinguishing Systems, Arrangements and Details

95.50–1 Application.
95.50–5 Classification.
95.50–10 Location.
95.50–15 Spare charges.
95.50–20 Semiportable fire extinguishers.
95.50–90 Vessels contracted for prior to November 19, 1952.

Subpart 95.60—Fire Axes

95.60–1 Application.
95.60–5 Number required.
95.60–10 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 17001, Dec. 30, 1965, unless otherwise noted.

Subpart 95.01—Application

§ 95.01–1 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 17001, Dec. 30, 1965, as amended by USCG–2006–24797, 77 FR 33878, Jun. 7, 2012]

§ 95.01–2 Incorporation by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the Coast Guard must publish notice of change in the FEDERAL REGISTER and the material must be available to the public. All approved material is available for inspection at the

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*. Also, it is available for inspection at the Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2100 2nd St. SW., Stop 7126, Washington, DC 20593–7126, 202–372–1405, and is available from the sources listed below.

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

(1) ASTM F 1121–87 (1993), Standard Specification for International Shore Connections for Marine Fire Applications, incorporation by reference approved for § 95.10–10.

(2) [Reserved]

(c) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02269–9101, telephone 800–344–3555, *http://www.nfpa.org*.

(1) NFPA 13–1996, Standard for the Installation of Sprinkler Systems, incorporation by reference approved for § 95.30–1.

(2) [Reserved]

[USCG–2009–0702, 74 FR 49232, Sept. 25, 2009, as amended by USCG7–2012–0832, 77 FR 59780, Oct. 1, 2012]

§ 95.01–5 Equipment installed but not required.

(a) Where fire detecting or extinguishing systems or equipment are not required, but are installed, the system or equipment and its installation shall meet the requirements of this part.

Subpart 95.05—Fire Detecting and Extinguishing Equipment, Where Required

§ 95.05–1 Fire detecting, manual alarm, and supervised patrol systems.

(a) Fire detecting, manual alarm, and supervised patrol systems are not required except in special cases; but if installed, the systems shall meet the applicable requirements of part 76 of subchapter H (Passenger Vessels) of this chapter.

(b) In each compartment containing explosives, and in adjacent cargo compartments, there shall be provided a smoke detecting or other suitable type fire detecting system.

(c) Enclosed spaces which are ''specially suitable for vehicles'' shall be fitted with an approved fire or smoke detecting system.

[CGFR 66–33, 31 FR 15285, Dec. 6, 1966]

§ 95.05–5 Fire main system.

(a) Fire pumps, hydrants, hose, and nozzles shall be installed on the following vessels:

(1) On all self-propelled vessels.

(2) On all barges with sleeping accommodations for more than 12 persons.

(b) The arrangements and details of the fire main system shall be as set forth in subpart 95.10.

§ 95.05–10 Fixed fire extinguishing systems.

(a) Approved fire extinguishing systems may be used or required in locations delineated in this section on the following vessels. 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.

(1) On all self-propelled vessels other than yachts and fishing vessels.

(2) On all barges with sleeping accommodations for more than 12 persons.

(b) A fixed carbon dioxide or other approved system must be installed in all cargo compartments and tanks for combustible cargo, except for vessels engaged exclusively in the carriage of coal or grain in bulk. For cargo compartments and tanks fitted with a fixed carbon dioxide or other approved system a deck foam system is not required, instead of the carbon dioxide system or other approved system, the following systems may be used or required in special cases:

(1) A fixed foam system may be used in cargo tanks.

(2) A water sprinkling system may be required, and the details of such system will be subject to special approval, in cases where a cargo is normally accessible and is considered to be a part of the working or living quarters.

(3) Spaces ''specially suitable for vehicles'' must be fitted with an approved

carbon dioxide system. Alternately, the Commandant may permit the installation of an approved water sprinkler system or other suitable system.

(c) On vessels other than motorboats, a fixed carbon dioxide or other approved system must be installed in all lamp and paint lockers, oil rooms, and similar spaces.

(d) On vessels of 1,000 gross tons and over, contracted for on or after November 19, 1952, or where conversion from coal to oil is contracted for on or after November 19, 1952, a fixed carbon dioxide, foam, or water spray system shall be installed in all spaces containing oil fired boilers, either main or auxiliary, or their fuel oil units, valves, or manifolds in the line between the settling tanks and the boilers.

(e) Fire extinguishing systems shall be provided for internal combustion installations in accordance with the following:

(1) If a fixed fire-extinguishing system is installed to protect an internal combustion propelling machinery installation, the system shall be of the carbon dioxide type.

(2) On vessels of 1,000 gross tons and over on an international voyage, the construction or conversion of which is contracted for on or after May 26, 1965, a fixed carbon dioxide system shall be installed in all spaces containing internal combustion or gas turbine main propulsion machinery, auxiliaries with an aggregate power of 1,000 b. hp. or greater, or their fuel oil units, including purifiers, valves, and manifolds.

(3) On vessels, the construction, conversion or automation of which is contracted for on or after July 1, 1968, the systems shall be in accordance with the following:

(i) A fixed carbon dioxide system shall be installed in any space containing machinery using fuel having a flashpoint of less than 110 °F.

(ii) On vessels of 1,000 gross tons and greater, a fixed carbon dioxide or clean agent system as described in 46 CFR subpart 95.16 must be installed in any space that contains internal combustion or gas turbine main propulsion machinery, or auxiliary machinery with an aggregate power of 1,000 b.h.p. or greater, or the fuel oil units of such machinery, including purifiers, valves, and manifolds.

(f) On vessels contracted for on or after November 19, 1952, where an enclosed ventilating system is installed for electric propulsion motors or generators, a fixed carbon dioxide extinguishing system must be installed in such a system.

[CGFR 65–50, 30 FR 17001, Dec. 30, 1965, as amended by CGFR 66–33, 31 FR 15285, Dec. 6, 1966; CGFR 67–90, 33 FR 1016, Jan. 26, 1968; CGD 95–027, 61 FR 26006, May 23, 1996; USCG–2006–24797, 77 FR 33878, Jun. 7, 2012]

§ 95.05–15 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, other than unmanned barges and fishing vessels, as set forth in subpart 95.50.

Subpart 95.10—Fire Main System, Details

§ 95.10–1 Application.

(a) The provisions of this subpart, with the exception of § 95.10–90, 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 § 95.10–90.

§ 95.10–5 Fire pumps.

(a) Vessels shall be equipped with independently driven fire pumps in accordance with Table 95.10–5(a).

TABLE 95.10–5(a)

Gross tons		Minimum number of pumps	Hose and hydrant size, inches	Nozzle orifice size, inches	Length of hose feet
Over	Not over				
	100	[1] 1	[1] 1½	[1] ½	[1] 50
100	1,000	1	1½	⅝	50
1,000	1,500	2	1½	⅝	50
1,500	.....	2	[2] 2½	[2] ⅞	[2] 50

[1] On vessels of 65 feet in length or less, ¾-inch hose of good commercial grade together with a commercial garden hose nozzle may be used. The pump may be hand operated and the length of hose shall be sufficient to assure coverage of all parts of the vessel.

[2] 75 feet of 1½-inch hose and ⅝-inch nozzle may be used where specified by § 95.10–10(b) for interior locations and 50 feet of 1½-inch hose may be used in exterior locations on vessels in other than ocean or coastwise service.

(b) On vessels of 1,000 gross tons and over on an international voyage, each required fire pump, while delivering water thru the fire main system at a pressure corresponding to that required by paragraph (c) of this section, shall have a minimum capacity of at least two-thirds of that required for an independent bilge pump. However, in no case shall the capacity of each fire pump be less than that otherwise required by this section.

(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 1½-inch hose is permitted in lieu of 2½-inch hose by footnote 2 of Table 95.10–5(a), the pump capacity shall be determined on the same basis as if 2½-inch hose had been permitted. Where ¾-inch hose is permitted by Table 95.10–5(a), the Pitot tube pressure need be only 35 p.s.i.

(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 shut-off conditions, are not capable of developing a pressure exceeding this amount.

(e) Fire pumps shall be fitted with a pressure gage 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 so arranged that adequate water can be made continuously available for firefighting purposes.

(g) The total area of the pipes leading from a pump shall not be less than the discharge area of the pump.

(h) On vessels with oil fired boilers, either main or auxiliary, or with internal combustion propulsion machinery, where 2 fire pumps are required, they shall be located in separate spaces, and the arrangement of pumps, sea connections, and sources of power shall be such as to insure that a fire in any one space will not put all of the fire pumps out of operation. However, 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 system may be accepted as an alternate method of extinguishing any fire that could affect the powering and operation of at least one of the required fire pumps.

[CGFR 65–50, 30 FR 17001, Dec. 30, 1965, as amended by CGFR 66–33, 31 FR 15285, Dec. 6, 1966; CGD 95–028, 62 FR 51206, Sept. 30, 1997; USCG–2006–24797, 77 FR 33878, Jun. 7, 2012]

§ 95.10–10 Fire hydrants and hose.

(a) The size of fire hydrants, hose, and nozzles and the length of hose required shall be as noted in Table 95.10–5(a).

(b) In lieu of the 2½-inch hose and hydrants specified in Table 95.10–5(a), on vessels over 1,500 gross tons, the hydrants in interior locations may have siamese connections for 1½-inch hose. In these cases the hose shall be 75 feet in length, and only one hose will be required at each fire station; however, if all such stations can be satisfactorily served with 50-foot lengths, 50-foot hose may be used.

(c) On vessels of 500 gross tons and over 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 adapters also must be provided for furnishing the vessel's shore connections with couplings mating those on the shore fire lines. Vessels of 500 gross tons and over on an international voyage, must be provided with at least one international shore connection complying with ASTM F 1121 (incorporated by reference, see § 95.01–2). Facilities must be available enabling an international connection to be used on either side of the vessel.

(d) Fire hydrants shall be of sufficient number and so located that any part of the vessel, other than main machinery spaces, accessible to persons on board while the vessel is being navigated and all cargo holds may be reached with at least 2 streams of

water from separate outlets, at least one of which shall be from a single length of hose. In main machinery spaces, all portions of such spaces shall be capable of being reached by at least 2 streams of water, each of which shall be from a single length of hose from separate outlets; however, this requirement need not apply to shaft alleys containing no assigned space for the stowage of combustibles. Fire hydrants shall be numbered as required by § 97.37–15 of this subchapter.

(e) All parts of the fire main located on exposed decks shall 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 shall be sealed open.

(f) The outlet at the fire hydrant shall 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, and a hose rack or other device for stowing the hose.

(h) Fire hose shall 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) Each firehose on each hydrant must have a combination solid stream and water spray firehose nozzle approved under subpart 162.027 of this chapter. 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.

(j) In each propulsion machinery space containing an oil fired boiler, internal combustion machinery, or oil fuel unit on a vessel on an international voyage or of 1000 gross tons or more, each firehose having a combination nozzle previously approved under subpart 162.027 of this chapter must have a low-velocity water spray applicator that is also previously approved under subpart 162.027 of this chapter. The length of the applicator must be less than 1.8 meters (6 feet).

(k) Fixed brackets, hooks, or other means for stowing an applicator must be next to each fire hydrant that has an applicator under paragraph (j) of this section.

(l) Firehose shall not be used for any other purpose than fire extinguishing, drills, and testing.

(m) Fire hydrants, nozzles, and other fittings shall 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 shall be brass, bronze, or other equivalent metal. Couplings shall either:

(i) Use National Standard fire hose coupling threads for the 1½ inch (38 millimeter) and 2½ inch (64 millimeter) hose sizes, i.e., 9 threads per inch for 1½ inch hose, and 7½ threads per inch for 2½ inch hose; or

(ii) Be a uniform design for each hose diameter throughout the vessel.

(2) Where 19 millimeters (¾ inch) hose is permitted by table 95.10–5(a), the hose and couplings shall be of good commercial grade.

(3) Each section of firehose must be lined commercial firehose that conforms to Underwriters' Laboratories, Inc. Standard 19 or Federal Specification ZZ-H-451E. Hose that bears the label of Underwriters' Laboratories, Inc. as lined firehose is accepted as conforming to this requirement.

[CGFR 65–50, 30 FR 17001, Dec. 30, 1965, as amended by CGD 74–60, 41 FR 43151, Sept. 30, 1976; CGD 76–086, 44 FR 2392, Jan. 11, 1979; CGD 88–032, 56 FR 35826, July 29, 1991; CGD 95–012, 60 FR 48051, Sept. 18, 1995; CGD 95–027, 61 FR 26007, May 23, 1996; CGD 95–028, 62 FR 51206, Sept. 30, 1997; USCG–2000–7790, 65 FR 58461, Sept. 29, 2000]

§ 95.10–15 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 § 97.37–10 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 requirement is in addition to § 95.10–5(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.

§ 95.10–90 Installations contracted for prior to May 26, 1965.

Installations contracted for prior to May 26, 1965, shall meet the following requirements:

(a) Except as specifically modified by this paragraph, the requirements of §§ 95.10–5 through 95.10–15 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 §§ 95.10–5 through 95.10–15 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 installations. However, all new installations or major replacements shall meet the applicable requirements in this subpart.

(b) All vessels contracted for prior to November 19, 1952, other than motorboats, shall be fitted with fire pumps, hoses, and nozzles in accordance with Table 95.10–90(a)(2).

TABLE 95.10–90(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	1	[1] 1½	[1] 5/16	[1] 50
100	1,000	1	[2] 1½	[2] ⅝	[2] 50
1,000	.....	2	[2] 1½	[2] ⅝	[2] 50

[1] On vessels of 65 feet in length or less, ¾-inch hose of good commercial grade together with a commercial garden hose nozzle may be used. The pump may be hand operated and the length of hose shall be sufficient to assure coverage of all parts of the vessel.

[2] May use 50 feet of 2½-inch hose with ⅞-inch nozzles for exterior stations. 75 feet of 1½-inch hose with ⅝-inch nozzles may be used for interior station in which case such interior stations shall have siamese connections.

(c) Vessels contracted for prior to July 1, 1935, need not meet the requirements of § 95.10–5(h), and vessels contracted for on or after July 1, 1935, but prior to November 19, 1952, may have a carbon dioxide ''bilge'' in lieu of ''total flooding'' system. However, in vessels of both categories where a conversion from coal to oil is contracted for on or after November 19, 1952, the provisions of § 95.10–5(h) shall apply.

(d) The general requirements of § 95.10–5(c) through (g), § 95.10–10(d) through (i), and § 95.10–15 shall be complied with insofar as is reasonable and practicable.

(e) Firehose nozzles and low-velocity spray applicators must meet the requirements of 95.10–10(i), 95.10–10(j), and 95.10–10(k).

[CGFR 65–50, 30 FR 17001, Dec. 30, 1965, as amended by CGD 76–086, 44 FR 2392, Jan. 11, 1979; CGD 95–027, 61 FR 26007, May 23, 1996]

Subpart 95.13—Steam Smothering Systems

§ 95.13–1 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 26007, May 23, 1996]

Subpart 95.15—Carbon Dioxide Extinguishing Systems, Details

§ 95.15–1 Application.

(a) Where a carbon dioxide extinguishing system is installed, the provisions of this subpart, with the exception of § 95.15–90, 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 § 95.15–90.

(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.

§ 95.15–5 Quantity, pipe sizes, and discharge rates.

(a) *General*. The amount of carbon dioxide required for each space shall be as determined by paragraphs (b) through (d) of 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 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 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 95.15–5(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 95.15–5(d)(1)

Gross volume of compartment, cubic feet		Factor
Over—	Not over—	
	.....	.....
500	.....	15
500	1,600	16
1,600	4,500	18
4,500	50,000	20
50,000	.....	22

(2) For the purpose of the requirements of this paragraph, the volume of the machinery space shall be taken as exclusive of the normal machinery casing unless the boiler, internal combustion machinery, or fuel oil installation 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 95.15–5(d)(4).

TABLE 95.15–5(d)(4)

Maximum quantity of carbon dioxide required, pounds	Minimum pipe size, inches	Maximum quantity of carbon dioxide required, pounds	Minimum pipe size, inches
100	½	2,500	2½
225	¾	4,450	3
300	1	7,100	3½
600	1¼	10,450	4

TABLE 95.15–5(d)(4)—Continued

Maximum quantity of carbon dioxide required, pounds	Minimum pipe size, inches	Maximum quantity of carbon dioxide required, pounds	Minimum pipe size, inches
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 inches.

(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 must be equal to the gross volume of the largest space which is capable of being sealed divided by 22. In no case, however, may the quantity be less than that required by paragraph (c)(2) of this section.

(2) The discharge of two thirds of the required quantity of carbon dioxide must be completed within 10 minutes. Any faster discharge rate is also acceptable.

(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 17001, Dec. 30, 1965, as amended by CGFR 66–33, 31 FR 15285, Dec. 6, 1966; CGD 95–028, 62 FR 51207, Sept. 30, 1997; USCG–1999–6216, 64 FR 53226, Oct. 1, 1999; USCG–2006–24797, 77 FR 33878, Jun. 7, 2012]

§ 95.15–10 Controls.

(a) Except as noted in § 95.15–20(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 § 95.15–5(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 §§ 97.37–10 and 97.37–13 of this subchapter.

(d) Systems of the type indicated in § 95.15–5(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 § 95.15–5(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 65–50, 30 FR 17001, Dec. 30, 1965, as amended by CGD 74–100B, 40 FR 6209, Feb. 10, 1975; USCG–1999–6216, 64 FR 53226, Oct. 1, 1999]

§ 95.15–15 Piping.

(a) The piping, valves, and fittings shall have a bursting pressure of not less than 6,000 pounds per square inch.

(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 pounds per square inch 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 are:

(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 pounds per square inch. 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 pounds per square inch 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 pounds per square inch in lieu of 1,000 pounds per square inch. 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 paragraphs (j) (1) through (3) of 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 pounds per square inch.

§ 95.15–20 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 § 95.15–5(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 17001, Dec. 30, 1965, as amended by CGD 84–044, 53 FR 7749, Mar. 10, 1988; USCG–1999–6216, 64 FR 53226, Oct. 1, 1999]

§ 95.15–25 Discharge outlets.

(a) Discharge outlets shall be of an approved type.

§ 95.15–30 Alarms.

(a) A protected space must be fitted with an approved audible alarm if:

(1) The space is normally accessible to persons onboard while the vessel is being navigated; and

(2) Is not a paint locker or similar small space.

(b) The alarm must:

(1) Sound automatically and audibly for at least 20 seconds before carbon dioxide is discharged into the space;

(2) Be conspicuously and centrally located and be marked as required by 46 CFR 97.37–9; and

(3) Use stored gas power provided by the extinguishing agent, gas from pilot cylinders, or gas from cylinders specifically provided to power the alarms.

(c) For systems installed on or after July 1, 1957, alarms are mandatory only for systems required to be fitted with a delayed discharge.

[USCG–2006–24797, 77 FR 33878, Jun. 7, 2012]

§ 95.15–35 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 other 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.

§ 95.15–40 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.

§ 95.15–50 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 33878, Jun. 7, 2012]

§ 95.15–60 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 33878, Jun. 7, 2012]

§ 95.15–90 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 §§ 95.15–5 through 95.15–40 insofar as is reasonable and practicable, with the exception of § 95.15–5(d)(1), (2) and (4) covering spaces other than cargo spaces, which systems may be installed in accordance with paragraphs (a) (3) through (6) of this section.

(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 boilerroom taken to the top of the boilers divided by 36. In the event of an elevated boiler room which drains to the machinery space, the system shall be installed in the engineroom 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 under side 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 95.15–90(a)(6). This table is based on cylinders having discharge outlets and siphon tubes of ⅜ inch diameter.

TABLE 95.15–90(a)(6)

Number of cylinders		Nominal pipe size, inches
Over	Not over	
	2	½—standard.
2	4	¾—standard.
4	6	1—extra heavy.
6	12	1¼—extra heavy.
12	16	1½—extra heavy.
16	27	2—extra heavy.
27	39	2½—extra heavy.
39	60	3—extra heavy.
60	80	3½—extra heavy.
80	104	4—extra heavy.
104	165	5—extra heavy.

[CGFR 65–50, 30 FR 17001, Dec. 30, 1965, as amended by USCG–1999–6216, 64 FR 53226, Oct. 1, 1999]

Subpart 95.16—Fixed Clean Agent Gas Extinguishing Systems, Details

SOURCE: USCG–2006–24797, 77 FR 33879, Jun. 7, 2012, unless otherwise noted.

§ 95.16–1 Application.

(a) ''Clean agent'' means a halocarbon or inert gas used as a fire extinguishing agent.

(b) A clean agent extinguishing system must comply with this part. Systems contracted for prior to July 9, 2012, may, as an alternative, comply with 46 CFR 95.16–90.

(c) Each clean agent system must:

(1) Be of a total flooding type to protect against Class B and Class C hazards as defined in 46 CFR 95.50–5;

(2) Address and minimize any hazard to personnel created by the effects of extinguishing agent decomposition products and combustion products, especially the effects of decomposition product hydrogen fluoride (HF), if applicable;

(3) Be accompanied by an approved manufacturer's design, installation, operation, and maintenance manual;

(4) Be used only to protect enclosed spaces;

(5) Not employ electric power for system actuation or controls; and

(6) Not use any source of power for alarms in protected spaces, other than the extinguishing agent, gas from pilot cylinders, or gas from cylinders specifically provided to power the alarms.

§ 95.16–5 Controls.

(a) At least one releasing station must be installed near the main entrance/exit to the protected space.

(b) System controls must be of an approved type and be suitably protected from damage and located outside the protected space.

(c) Systems must have releasing stations consisting of one control to operate the stop valve to the protected space and a second control to release at least the required amount of agent. These two controls must be located in a box or other enclosure clearly identified for the particular space.

(d) Systems protecting a single space not exceeding 6,000 cubic feet in gross volume may be installed without a stop valve if a suitable horizontal means of escape from the space exists.

(e) Controls may not be located in any space that could be cut off from the operator in the event of fire in the protected space.

(f) Where the extinguishing agent can be released by remote control, the system must have a manual local control at the cylinders.

(g) Systems with remotely operated releasing controls must have mechanical override features.

(h) Automatic discharge arrangements may be used for spaces having a gross volume less than 6,000 cubic feet. However, automatic discharge is required for spaces having a gross volume less than 6,000 cubic feet where the agent is stored in the protected space, as allowed by 46 CFR 95.16–20.

(i) A system designed to use gas pressure from one or more agent storage cylinders and provide pilot pressure to actuate the release of extinguishing agent from other storage cylinders that contain three or more total storage cylinders must be equipped with at least two designated pilot cylinders, each of which is capable of manual control at the pilot cylinder.

§ 95.16–10 Piping, fittings, valves, nozzles.

(a) Piping, fittings, and valves must be:

(1) In accordance with the manufacturer's approved design, installation, operation, and maintenance manual;

(2) Securely supported and when necessary protected against damage;

(3) Protected inside and out against corrosion; and

(4) Equipped with:

(i) Dead end lines (dirt traps) that extend at least 2 inches beyond the last nozzle of each distribution line and that are closed with a cap or plug; and

(ii) Drains and dirt traps, fitted where necessary to prevent dirt or moisture accumulation and located in accessible locations where possible.

(b) *Piping requirements.* Piping must be:

(1) Used exclusively for extinguishing system purposes;

(2) Protected by a pressure relief valve in sections where gas pressure can be trapped between closed valves; and

(3) Welded if it passes through living quarters.

(c) *Piping prohibitions.* Piping must not:

(1) Use rolled groove or cut groove ends; or

(2) Be fitted with drains or other openings if it passes through living quarters.

(d) *Valve requirements.* Valves for system operation must be:

(1) Outside the protected space, and

(2) Marked, if serving a branch line, to indicate the space the branch line serves.

(e) *Valve prohibitions.* Valves may not be located in any space that could be cut off from the operator in the event of fire in the protected space.

§ 95.16–15 Extinguishing agent: Quantity.

A separate supply need not be provided for each space protected, but the total available supply must be at least sufficient for the space requiring the greatest amount.

§ 95.16–20 Extinguishing agent: Cylinder storage.

(a) Unless installed as required in paragraph (b) of this section, the agent must be stored outside of the protected space. Common bulkheads and decks located between the cylinder storage room and the protected spaces must meet the insulation criteria for Class A–60, as defined in 46 CFR 72.05–10.

(b) The cylinders may be stored inside the protected space, if:

(1) The space does not exceed 6,000 cubic feet gross volume; and

(2) The system can be automatically operated by a pneumatic heat actuator as well as a remote manual control.

(c) The cylinder storage space must be properly ventilated and designed to preclude an anticipated ambient temperature in excess of 130 °Fahrenheit.

(d) The cylinders must be securely fastened and supported as directed in the manufacturer's approved design, installation, operation, and maintenance manual, and where necessary protected against damage.

(e) The cylinders must be mounted so they are readily accessible and capable of easy removal for recharging and inspection and for weighing in the case of halocarbon system cylinders.

(f) The cylinders must be installed to provide a space of at least 2 inches between the deck and the bottom of the cylinders. A tray or other bottom support located 2 inches above the deck is an acceptable arrangement.

(g) The cylinders must be mounted upright, unless otherwise specified in the instruction manual.

(h) All cylinder storage room doors must open outward.

§ 95.16–25 Manifold and cylinder arrangements.

(a) A check valve must be provided between each cylinder and manifold or distribution piping. The valve must be permanently marked to indicate the direction of flow.

(b) If the same cylinder is used to protect more than one space, normally, closed stop valves must be provided to direct the agent into each protected space.

(c) Each cylinder must be fabricated, tested, and marked in accordance with 46 CFR 147.60(b) and 49 CFR part 180.

(d) The cylinders in a common manifold must be:

(1) Of the same size;

(2) Filled with the same amount of agent; and

(3) Pressurized to the same working pressure.

§ 95.16–30 Enclosure openings.

(a) If mechanical ventilation is provided for in a protected space, the ventilation system must automatically shut down prior to discharge of the system to that space.

(b) If natural ventilation is provided for in a space protected by a clean agent extinguishing system, the ventilation must be capable of being easily and effectively closed off.

(c) All other openings to a protected space must be capable of being closed. Doors, shutters, or dampers must be installed for openings in the lower portion of the space. Openings in the upper portion of the space must be capable of being closed off either by permanently installed means or by the use of canvas or other material normally carried on the vessel.

§ 95.16–35 Pressure relief.

Tight compartments, like refrigeration spaces and paint lockers, must have a way to relieve the accumulation of excessive pressure within the compartment when the extinguishing agent is injected.

§ 95.16–40 Locked spaces.

If a space or enclosure containing extinguishing agent supply or controls is lockable, a key to the space or enclosure must be in a break glass type box conspicuously located adjacent to the opening.

§ 95.16–45 Pre-discharge alarms and time delay devices.

(a) Each system protecting a space with greater than 6,000 cubic feet gross volume or a space less than 6,000 cubic feet gross volume without a suitable horizontal escape route must have a pneumatic pre-discharge alarm and time delay.

(1) The time delay period must:

(i) Last at least 20 seconds;

(ii) Be approved by the Officer in Charge, Marine Inspection during system installation; and

(iii) Provide enough time for one person to walk from the farthest area of the protected space to the primary exit.

(2) The time delay device must be pneumatically operated and have an accuracy of -0/+20 percent of the rated time delay period throughout the operating temperature range and range of delay settings.

(b) The pre-discharge alarm must:

(1) Sound for the duration of the time delay;

(2) Be conspicuously and centrally located in the protected space and marked as required by 46 CFR 97.37–9;

(3) Depend on the extinguishing agent, gas from a pilot cylinder, or a nitrogen cylinder specifically provided to power the alarm for its source of power; and

(4) Be audible over running machinery.

§ 95.16–50 Instructions.

(a) Simple, complete operating instructions must be conspicuously located at or near any release station and in the extinguishing agent cylinder storage room.

(b) On a system in which extinguishing agent cylinders are stored outside the protected space, operating instructions must also:

(1) Include a schematic diagram of the system; and

(2) Describe alternate methods of discharging the extinguishing agent into protected spaces should the manual releases or stop valve controls fail to operate.

§ 95.16–60 System piping installation testing.

(a) *Halocarbon systems.* A pressure test using the extinguishing agent, air or inert gas, must be conducted on halocarbon system discharge piping on completion of piping installation and before extinguishing agent cylinders are connected.

(1) Except as otherwise specified in this section:

(i) Piping from the cylinders to the stop valves or selector valves must be subjected to a pressure of 1½ times the cylinder charging pressure at 70 °Fahrenheit; and

(ii) The leakage during a 2-minute period must not exceed a pressure drop of 10 percent of the test pressure.

(2) Individual branch lines to a protected space must be tested as described in paragraph (a)(1) of this section, except that:

(i) The pressure must be 150 pounds per square inch; and

(ii) Distribution piping must be capped within the protected space at the first joint upstream of the nozzles.

(3) Pneumatic actuation piping must be tested as described in paragraph (a)(1) of this section.

(b) *Inert gas systems*. A pressure test using air or inert gas must be conducted on each inert gas system's piping on completion of piping installation and before extinguishing agent cylinders are connected.

(1) Except as otherwise specified in this section:

(i) Piping from the cylinders to the stop valves or selector valves must be subjected to a pressure of 1,000 pounds per square inch (psi) at 70 °Fahrenheit; and

(ii) The leakage during a 2-minute period must not exceed a pressure drop of 100 psi.

(2) Individual branch lines to a protected space must be tested as described in paragraph (b)(1) of this section, except that:

(i) The pressure must be 600 psi; and

(ii) Distribution piping must be capped within the protected space at the first joint upstream of the nozzles.

(3) Pneumatic actuation piping must be tested as described in paragraph (b)(1) of this section.

(c) *Small independent systems*. In lieu of test requirements in paragraphs (a) or (b) of this section, a small independent halocarbon or inert gas system, like those found in emergency generator rooms and paint lockers, may be tested by blowing out the piping with air pressure of at least 100 psi, if:

(1) There are no valves in the system discharge piping; and

(2) There is not more than one change in direction between the agent container and the discharge nozzle.

§ 95.16–90 Installations contracted for prior to July 9, 2012.

Installations contracted for prior to July 9, 2012, must meet the requirements of this subpart unless previously approved existing arrangements, materials, and facilities are:

(a) Maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection; and

(b) Subjected to no more than minor repairs or alterations implemented to the same standards as the original installation.

Subpart 95.17—Foam Extinguishing Systems, Details

§ 95.17–1 Application.

(a) Where a foam extinguishing system is installed, the provisions of this subpart, with the exception of § 95.17–90, 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 § 95.17–90.

§ 95.17–5 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 engineroom 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 paragraph.

(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.

(d) *Separate supply of foam agent.* 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.

(e) *Water supply for required pumps.* 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.

§ 95.17–10 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 the spaces protected, and shall be marked as required by § 97.37–13 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 § 97.37–10 of this subchapter.

§ 95.17–15 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.

§ 95.17–20 Discharge outlets.

(a) Discharge outlets shall be of an approved type.

§ 95.17–25 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 95.10, shall be installed outside of the machinery space entrance. 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 § 95.10–10(i)(3).

§ 95.17–90 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 §§ 95.17–5 through 95.17–20, with the exception of § 95.17–5(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 § 95.17–5.

Subpart 95.30—Automatic Sprinkler Systems, Details

§ 95.30–1 Application.

Automatic sprinkler systems shall comply with NFPA 13–1996.

[CGD 95–028, 62 FR 51207, Sept. 30, 1997]

Subpart 95.50—Hand Portable Fire Extinguishers and Semiportable Fire Extinguishing Systems, Arrangements and Details

§ 95.50–1 Application.

(a) The provisions of this subpart, with the exception of § 95.50–90, shall apply to all vessels, other than unmanned barges and fishing vessels, contracted for on or after November 19, 1952. Such vessels contracted for prior to November 19, 1952, shall meet the requirements of § 95.50–90.

§ 95.50–5 Classification.

(a) Hand portable fire extinguishers and semiportable fire extinguishing systems shall be classified by a combination letter and number symbol. The letter indicating the type of fire which the unit could be expected to extinguish, and the number indicating the relative size of the unit.

(b) The types of fire will be designated as follows:

(1) ''A'' for fires in ordinary combustible materials where the quenching and cooling effects of quantities of water, or solutions containing large percentages of water, are of first importance.

(2) ''B'' for fires in flammable liquids, greases, etc., where a blanketing effect is essential.

(3) ''C'' for fires in electrical equipment where the use of nonconducting extinguishing agent is of first importance.

(c) The number designations for size will start with ''I'' for the smallest to ''V'' for the largest. Sizes I and II are considered hand portable fire extinguishers and sizes III, IV, and V are considered semiportable fire extinguishing systems which shall be fitted with suitable hose and nozzle or otherpracticable means so that all portions of the space concerned may be covered. Examples of size graduations for some of the typical hand portable and semiportable fire extinguishing systems are set forth in Table 95.50–5(c).

TABLE 95.50–5(c)

Classification		Soda-acid and water, gallons	Foam, gallons	Carbon dioxide, pounds	Dry chemical, pounds
Type	Size				
A	II	2½	2½		
B	I		1¼	4	2
B	II		2½	15	10
B	III		12	35	20
B	IV		20	50	30
B	V		40	100	50
C	I			4	2
C	II			15	10

(d) All hand portable fire extinguishers and semiportable fire extinguishing systems shall have permanently attached thereto a metallic name plate giving the name of the item, the rated capacity in gallons, quarts, or pounds, the name and address of the person or firm for whom approved, and the identifying mark of the actual manufacturer.

(e) Vaporizing-liquid type fire extinguishers containing carbon tetrachloride or chlorobromomethane or other toxic vaporizing liquids shall be removed from all vessels.

§ 95.50–10 Location.

(a) Approved hand portable fire extinguishers and semiportable fire extinguishing systems shall be installed in accordance with Table 95.50–10(a). The location of the equipment shall be to the satisfaction of the Officer in Charge, Marine Inspection. Nothing in this paragraph shall be construed as limiting the Officer in Charge, Marine

Inspection, from requiring such additional equipment as he deems necessary for the proper protection of the vessel.

TABLE 95.50–10(a)—HAND PORTABLE FIRE EXTINGUISHER AND SEMIPORTABLE FIRE-EXTINGUISHING SYSTEMS

Space	Classification (see § 95.50–5)	Quantity and location
Safety areas[1]		
Wheelhouse or fire control room		None required.
Stairway and elevator enclosures		Do.
Communicating corridors	A-II	1 in each main corridor not more than 150 feet apart. (May be located in stairways.)
Lifeboat embarkation and lowering stations		None required.
Radio room.		
C-I[2]	2 in vicinity of exit.[2].	
Accommodations[1]		
Staterooms, toilet spaces, public spaces, offices, lockers, isolated storerooms, and pantries, open decks, etc.		None required.
Service spaces[1]		
Galleys	B-II or C-II	1 for each 2,500 square feet or fraction thereof suitable for hazards involved.
Paint and lamp rooms	B-II	1 outside space in vicinity of exit.
Accessible baggage, mail, and specie rooms, and storerooms	A-II	1 for each 2,500 square feet or fraction thereof located in vicinity of exits, either inside or outside the spaces.
Carpenter shop and similar spaces	A-II	1 outside the space in vicinity of 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.	B-II; B-V	2 required[3]; 1 required.[4]
Internal combustion or gas turbine propelling machinery spaces	B-II	1 for each 1,000 brake horsepower, but not less than 2 nor more than 6.[5]
	B-III	1 required.[6,7]
Electric propulsive motors or generators of open type	C-II	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	B-II	1 outside the space in vicinity of exit.[7]
Electric emergency motors or generators	C-II	1 outside the space in vicinity of exit.[8]
Steam		None required.
Trunks to machinery spaces		Do.
Fuel tanks		Do.
Cargo spaces		
Inaccessible during voyage, including trunks and cargo tanks		Do.
Accessible during voyage		Do.

[1] For motorboats, the total number of hand portable fire extinguishers required for safety areas, accommodation spaces, and service spaces shall be 1 B-II for motorboats of less than 50 gross tons and 2 B-II for motor boats of 50 gross tons and over. Two B-I hand portable fire extinguishers may be substituted for 1 B-II.
[2] For vessels on an international voyage, substitute 1 C-II in vicinity of exit.
[3] Vessels of less than 1,000 gross tons require 1.
[4] Vessels of less than 1,000 gross tons may substitute 1 B-IV.
[5] Only 1 required for motorboats.
[6] If oil burning donkey boiler fitted in space, the B-V previously required for the protection of the boiler may be substituted. Not required where a fixed carbon dioxide system is installed.
[7] Not required on vessels of less than 300 gross tons if fuel has a flashpoint higher than 110 °F.
[8] Not required on vessels of less than 300 gross tons.

(b) Semiportable fire extinguishing systems shall be located in the open so as to be readily seen.

(c) If hand 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 fire hose, provided such enclosures are marked as required by § 97.37–15 of this subchapter.

(d) Hand portable fire extinguishers and their stations shall be numbered in accordance with § 97.37–23 of this subchapter.

(e) Hand portable or semiportable extinguishers, which are required on their nameplates to be protected from freezing, shall not be located where

freezing temperatures may be expected.

§ 95.50–15 Spare charges.

(a) For all vessels other than motorboats spare charges shall be carried for at least 50 percent of each size and each variety, i.e. foam, soda-acid, carbon dioxide, etc., of hand portable fire extinguisher required by § 95.50–10(a). However, if the unit is of such variety that it cannot be readily recharged by the vessel's personnel, one spare unit of the same classification shall be carried in lieu of spare charges for all such units of the same size and variety.

(b) Spare charges shall be so packaged as to minimize the hazards to personnel while recharging the units. Acid shall be contained in a Crown stopper type of bottle.

§ 95.50–20 Semiportable fire extinguishers.

(a) The frame or support of each size III, IV, and V fire extinguisher required by Table 95.50–10(a) must be welded or otherwise permanently attached to a bulkhead or deck.

(b) If an approved size III, IV, or V fire extinguisher has wheels and is not required by Table 95.50–10(a), it must be securely stowed when not in use to prevent it from rolling out of control under heavy sea conditions.

[CGD 77–039, 44 FR 34133, June 14, 1979]

§ 95.50–90 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 §§ 95.50–5 through 95.50–15 shall be met with the exception that existing installations in safety areas and service spaces may be maintained if in the opinion of the Officer in Charge, Marine Inspection, they are in general agreement with the degree of safety prescribed by Table 95.50–10(a). In such cases, minor modifications may be made to the same standard as the original installation: *Provided*, That in no case will a greater departure from the standards of Table 95.50–10(a) be permitted than presently exists.

Subpart 95.60—Fire Axes

§ 95.60–1 Application.

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

§ 95.60–5 Number required.

(a) All vessels except barges shall carry at least the minimum number of fire axes as set forth in Table 95.60–5(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 95.60–5(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) Manned barges shall carry at least two fire axes.

§ 95.60–10 Location.

(a) Fire axes shall be distributed throughout the spaces available to persons on board 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 § 97.37–15 of this subchapter.

PART 96—VESSEL CONTROL AND MISCELLANEOUS SYSTEMS AND EQUIPMENT

Subpart 96.01—Application

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96.07–5 Ocean, coastwise, or Great Lakes service.
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Subpart 96.17—Magnetic Compass and Gyrocompass

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Subpart 96.35—Fireman's Outfit

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96.35–5 General.
96.35–10 Fireman's outfit.
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96.35–20 Spare charges.
96.35–90 Vessels contracted for before November 23, 1992.

Subpart 96.40—Pilot Boarding Equipment

96.40–1 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 17008, Dec. 30, 1965, unless otherwise noted.

Subpart 96.01—Application

§ 96.01–1 General.

(a) The provisions of this part shall apply to all vessels except as specifically noted in this part.

§ 96.01–3 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2100 2nd St. SW., Stop 7126, Washington, DC 20593-7126, and is 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—96.35–5

NOTE: All other documents referenced in this part are still in effect.

[CGD 82–042, 53 FR 17705, May 18, 1988, as amended by CGD 95–072, 60 FR 50464, Sept. 29, 1995; CGD 96–041, 61 FR 50729, Sept. 27, 1996; CGD 97–057, 62 FR 51046, Sept. 30, 1997; USCG 1999–5151, 64 FR 67181, Dec. 1, 1999; USCG–2009–0702, 74 FR 49232, Sept. 25, 2009; USCG–2012–0832. 77 FR 59780, Oct. 1, 2012]

Subpart 96.03—Marine Engineering Systems

§ 96.03–1 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.
Bilge and Ballast Systems.

Tank Vent and Sounding Systems.
Overboard Discharges and Shell Connections.
Pipe and Pressure Systems.
Liquefied Petroleum Gas For Cooking and Heating.

Subpart 96.05—Electrical Engineering and Interior Communications Systems

§ 96.05–1 Installation and details.

(a) The installation of all systems of an electrical engineering or interior communication 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 66–33, 31 FR 15285, Dec. 6, 1966, as amended by CGFR 68–32, 33 FR 5719, Apr. 12, 1968, CGD 74–125A, 47 FR 15232, Apr. 8, 1982]

Subpart 96.06—Lifesaving Appliances and Arrangements

§ 96.06–1 Installation.

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

[CGD 84–069, 61 FR 25289, May 20, 1996]

Subpart 96.07—Anchors, Chains, and Hawsers

§ 96.07–1 Application.

(a) The provisions of this subpart, with the exception of § 96.07–90, 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 § 96.07–90.

§ 96.07–5 Ocean, coastwise, or Great Lakes service.

(a) Vessels in ocean, coastwise, or Great Lakes service, except unmanned barges, shall be fitted with anchors. chains, and hawsers in general agreement with the Standards established by the American Bureau of Shipping, see Subpart 90.35 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) Tugs, under 200 feet (61 meters) in length, shall have at least one anchor of one-half the tabular weight listed in the applicable standards.

(d) 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 68–32, 33 FR 5720, Apr. 12, 1968, as amended by CGD 87–013, 53 FR 20624, June 6, 1988]

§ 96.07–10 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.

§ 96.07–90 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.

Subpart 96.17—Magnetic Compass and Gyrocompass

§ 96.17–1 When required.

(a) All mechanically propelled vessels in ocean or coastwise service must be fitted with a magnetic compass.

(b) All mechanically propelled vessels of 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) 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 96.25—Radar

§ 96.25–1 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 5964, Jan. 31, 1977]

Subpart 96.27—Sounding Equipment

§ 96.27–1 When required.

All mechanically propelled vessels of 500 gross tons and over in 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 sounding apparatus.

[CGD 95–027, 61 FR 26007, May 23, 1996]

Subpart 96.30—Protection From Refrigerants

SOURCE: CGD 86–036, 57 FR 48325, Oct. 23, 1992, unless otherwise noted.

§ 96.30–1 Application.

(a) This subpart, except § 96.30–90, applies to each vessel that is contracted for on or after November 23, 1992, and is equipped with any refrigeration unit using—

(1) Ammonia to refrigerate any space with a volume of more than 20 cubic feet; or

(2) Fluorocarbons to refrigerate any space with a volume of more than 1000 cubic feet.

(b) Each vessel that is contracted for before November 23, 1992, must satisfy § 96.30–90 if it is equipped with any refrigeration unit using—

(1) Ammonia to refrigerate any space with a volume of more than 20 cubic feet; or

(2) Fluorocarbons to refrigerate any space with a volume of more than 1000 cubic feet.

§ 96.30–5 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 by the National Institute for Occupational Safety and Health (NIOSH), and have at a minimum a 30-minute air supply, a full facepiece, and a spare charge.

(b) 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.

[CGD 86–036, 57 FR 48325, Oct. 23, 1992; 57 FR 56406, Nov. 27, 1992]

§ 96.30–15 Self-contained breathing apparatus.

(a) Each vessel must have a self-contained breathing apparatus for use as protection against gas leaking from a refrigeration unit.

(b) The self-contained breathing apparatus required by paragraph (a) of this section may be one of those required by § 96.35–10.

§ 96.30–90 Vessels contracted for before November 23, 1992.

Vessels contracted for before November 23, 1992, must meet the following requirements:

(a) Each vessels must satisfy §§ 96.30–5 through 96.30–15 concerning the number of items and method of stowage of equipment.

(b) Items of equipment previously approved, but not meeting the applicable specifications set forth in § 96.30–5, 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 § 96.30–5(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.

Subpart 96.35—Fireman's Outfit

§ 96.35–1 Application.

This subpart, except § 96.35–90, 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 § 96.35–90.

[CGD 86–036, 57 FR 48325, Oct. 23, 1992]

§ 96.35–5 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 by the National Institute for Occupational Safety and Health (NIOSH), and have at a minimum a 30-minute air supply and full facepiece.

(c) Flashlights shall be Type II or Type III, constructed and marked in accordance with ASTM F 1014 (incorporated by reference, see § 96.01–3).

(d) All lifelines shall be of steel or bronze wire rope. Steel wire rope 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 provide 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 17008, Dec. 30, 1965, as amended by CGFR 69–72, 34 FR 17485, Oct. 29, 1969; CGD 82–042, 53 FR 17705, May 18, 1988; CGD 86–036, 57 FR 48325, Oct. 23, 1992; USCG 1999–5151, 64 FR 67181, Dec. 1, 1999]

§ 96.35–10 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) Every vessel shall carry at least two firemen's outfits.

[CGFR 69–72, 34 FR 17485, Oct. 29, 1969, as amended by CGD 86–036, 57 FR 48325, Oct. 23, 1992; CGD 95–028, 62 FR 51207, Sept. 30, 1997]

§ 96.35–15 Stowage.

The fireman's outfits must be stored in widely separated, accessible locations.

[CGD 75–074, 42 FR 5964, Jan. 31, 1977]

§ 96.35–20 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.

§ 96.35–90 Vessels contracted for before November 23, 1992.

Vessels contracted for before November 23, 1992, must meet the following requirements:

(a) Each vessel must satisfy §§ 96.35–5 through 96.35–20 concerning the number of items and method of stowage of equipment.

(b) Items of equipment previously approved, but not meeting the applicable specifications set forth in § 96.35–5, 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 § 96.35–5(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 48326, Oct. 23, 1992]

Subpart 96.40—Pilot Boarding Equipment

§ 96.40–1 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 97—OPERATIONS

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Subpart 97.55—De-Energizing of Cargo Hold Lighting Circuits When Grain or Other Combustible Bulk Cargo Is Carried

97.55–1 Master's responsibility.
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Subpart 97.90—Pilot Boarding Operations

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Subpart 97.95—Person in Charge of Transfer of Liquid Cargo in Bulk

97.95–1 General.

AUTHORITY: 33 U.S.C. 1321(j); 46 U.S.C. 2103, 3306, 5111, 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 17011, Dec. 30, 1965, unless otherwise noted.

Subpart 97.01—Application

§ 97.01–1 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 17011, Dec. 30, 1965, as amended by USCG–2006–24797, 77 FR 33881, Jun. 7, 2012]

§ 97.01–2 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 at the U.S. Coast Guard, Lifesaving and Fire Safety Division (CG–ENG–4), 2100 2nd St. SW., Stop 7126, Washington, DC 20593–7126, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html*. All material is available from the sources indicated in paragraph (b) of this section.

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

American Society for Testing and Materials (ASTM)

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—97.15–55

ASTM Adjunct F 1626, Symbols for Use in Accordance with Regulation II–2/20 of the 1974 SOLAS Convention as amended PCN: 12–616260–01 (1996)—97.36–1

International Maritime Organization (IMO)

Publications Section, 4 Albert Embankment, London, SE1 7SR United Kingdom

Resolution A.654(16), Graphical Symbols for Fire Control Plans—97.36–1

[CGD 95–028, 62 FR 51207, Sept. 30, 1997, as amended by USCG 1998–4442, 63 FR 52191, Sept. 30, 1998; USCG 1999–5151, 64 FR 67181, Dec. 1, 1999; USCG–2009–0702, 74 FR 49232, Sept. 25, 2009; USCG–2012–0832, 77 FR 59780, Oct. 1, 2012]

Subpart 97.05—Notice to Mariners and Aids to Navigation

§ 97.05–1 Duty of officers.

(a) Licensed deck officers are required to acquaint themselves with the latest information published by the Coast Guard and the National Imagery and Mapping Agency regarding aids to navigation. Neglect to do so is evidence of neglect of duty. It is desirable that vessels other than motorboats shall have available in the pilothouse for convenient reference at all times a file of the applicable Notice to Mariners.

(b) Weekly Notices to Mariners (Great Lakes Edition), published by the Commander, 9th Coast Guard District, contain announcements and information on changes in aids to navigation and other marine information affecting the safety of navigation on the Great Lakes. These notices may be obtained free of charge, by making application to Commander, 9th Coast Guard District.

(c) Weekly Notices to Mariners (world-wide coverage) are prepared jointly by the National Imagery and Mapping Agency, National Ocean Service and the U.S. Coast Guard. They include changes in aids to navigation in assembled form for the 1st, 5th, 7th, Greater Antilles Section 8th, 11th, 13th, 14th, and 17th Coast Guard Districts. Foreign marine information is also included in these notices. These notices are available without charge from the U.S. Naval Oceanographic Office, Washington, DC 20390, Branch Oceanographic Offices, U.S. Collector of Customs of the major seaports in the United States and are also on file in the U.S. Consulates where they may be inspected.

[CGFR 66–33, 31 FR 15286, Dec. 6, 1966, as amended by CGFR 68–32, 33 FR 5720, Apr. 12, 1968; CGFR 69–116, 35 FR 6861, Apr. 30, 1970; CGD 95–072, 60 FR 50464, Sept. 29, 1995; USCG–2001–10224, 66 FR 48620, Sept. 21, 2001]

§ 97.05–5 Charts and nautical publications.

As appropriate for the intended voyage, all vessels except barges, vessels operating exclusively on rivers, and motorboats other than those certificated for ocean or coastwise route, 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 5964, Jan. 31, 1977]

Subpart 97.07—Notice and Reporting of Casualty and Voyage Records

§ 97.07–1 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 subpart 4.05 of this chapter.

[CGD 84–099, 52 FR 47536, Dec. 14, 1987, as amended by USCG 1998–4442, 63 FR 52191, Sept. 30, 1998]

Subpart 97.10—Persons Allowed in Pilothouse and on Navigation Bridge

§ 97.10–1 Application.

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

§ 97.10–5 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,

[1] For United States vessels in or on the navigable waters of the United States, see 33 CFR 164.33.

United States Navy, National Imagery and Mapping 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]

Subpart 97.11—Stability Letter

§ 97.11–1 Posting.

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 51008, Nov. 4, 1983]

Subpart 97.12—Bulk Solid Cargoes

SOURCE: 75 FR 64591, October 19, 2010, unless otherwise noted.

§ 97.12–1 Definition of a bulk solid cargo.

(a) A bulk solid cargo—

(1) Consists of particles, granules, or larger pieces of material generally uniform in composition;

(2) Is not grain; and

(3) Is loaded directly into a vessel's cargo space with no intermediate form of containment.

(b) Additional requirements for bulk solid materials needing special handling are contained in Part 148 of this chapter.

§ 97.12–3 Guidance for the master.

(a) The owner or operator of a vessel must provide the master with safe loading and stowage information for each bulk solid cargo that vessel will carry.

(b) The shipper of a bulk solid cargo, as defined in § 148.3 of this chapter, must provide the master of a vessel with information regarding the nature of the cargo in advance of loading operations. Additional requirements in § 148.60 of this chapter may also apply.

§ 97.12–5 Bulk solid cargoes that may liquefy.

If the information provided in § 97.12–3(a) or (b) indicates that the bulk solid cargo to be carried is prone to liquefy during carriage, due to small particle sizes and moisture content, then the requirements contained in § 148.450 of this chapter apply.

Subpart 97.13—Station Bills

§ 97.13–1 Muster lists, emergency signals, and manning.

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

[CGD 84–069, 61 FR 25289, May 20, 1996]

Subpart 97.15—Tests, Drills, and Inspections

§ 97.15–1 Application.

(a) Except as specifically noted, the provisions of this subpart shall apply to all vessels other than motorboats, and to all motorboats on an international voyage. Motorboats not on an international voyage shall meet the general intent of this subpart insofar as is reasonable and practicable with the exception that the logging of information is not required.

§ 97.15–3 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 engineroom 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 in every week.

(b) The date of the test and the condition of the equipment shall be noted in the official logbook.

§ 97.15–5 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 load line mark, port and starboard, in relation to the surface of the water in which the vessel is then floating.

(1) 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.

§97.15–7 Verification of vessel compliance with applicable stability requirements.

(a) Except as provided in paragraph (d) of this section, after loading and prior to departure and at all other times necessary to assure the safety of the vessel, the master or person in charge 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. 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.

(c) If a log book is required by §97.35, then the master or person in charge must enter an attestation statement verifying that the vessel complies with the applicable stability requirements at the times specified in paragraph (a) and any stability calculations made in support of the determination must be retained on board the vessel for the duration of the voyage.

(d) Stability verification is not required for tank barges whose Certificate of Inspection carries draft restrictions for purposes other than stability.

[CGD 89–037, 57 FR 41822, Sept. 11, 1992]

§97.15–10 Sanitation.

(a) It shall be the duty of the master and chief engineer to see that the vessel, and, in particular, the quarters are in a clean and sanitary condition. The chief engineer shall be responsible only for the sanitary condition of the engineering department.

§97.15–15 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 51207, Sept. 30, 1997]

§97.15–17 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, cargo, and stores, in the collision bulkhead, the side shell, and 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 41823, Sept. 11, 1992]

§97.15–20 Hatches and other openings.

(a)(1) With the exception stated in paragraph (a)(2) of this section, it shall be the responsibility of the master to

assure himself that all exposed cargo hatches and other openings in the hull of his vessel are closed, made properly watertight by the use of tarpaulins, gaskets or similar devices, and in all respects properly secured for sea before leaving protected waters.

(2) A vessel engaged in a voyage exclusively on Great Lakes waters and having 6 feet or more of freeboard, measured vertically from the water's edge at the lowest point of sheer to the top of deck at the ship's side, may, at the master's discretion, omit tarpaulins on the ship's hatches from 16 May through 15 September (both dates inclusive). This exemption does not relieve the master of any responsibility for the securing and protection of his hatches during the interval of exemption and, in case of indications of bad weather or other threatening conditions, he shall not leave protected waters until the exposed cargo hatches and other openings in the hull of his vessel are properly covered, secured and protected.

(b) The openings to which this section applies are as follows:

(1) Exposed cargo hatches.

(2) Gangway, cargo and coaling ports fitted below the freeboard deck.

(3) Port lights that are not accessible during navigation including the dead lights for such port lights.

(c) Vessels which, by their design, do not require cargo hatch closing devices and to which § 45.01–20 of subchapter E (Load Lines) of this chapter applies need not comply with the requirements of this section as to exposed cargo hatches.

(d) The master at his discretion may permit hatches or other openings to remain uncovered or open, or to be uncovered or opened for reasonable purposes such as ship's maintenance while the vessel is being navigated: *Provided,* That in his opinion existing conditions warrant such action.

(e) In the event the master employs the discretionary provisions of this section after leaving port he shall cause appropriate entries to be made in the official log or equivalent thereof setting forth the time of uncovering, opening, closing or covering of the hatches or other openings to which this section applies and the circumstances warranting the action taken.

(f) The discretionary provisions of this section shall not relieve the master of his responsibility for the safety of his vessel, her crew or cargo.

§ 97.15–30 Emergency lighting and power systems.

(a) Where fitted, 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 log book.

[CGFR 65–50, 30 FR 17014, Dec. 30, 1965, as amended by CGFR 70–143, 35 FR 19906, Dec. 30, 1970; 36 FR 5606, Mar. 25, 1971]

§ 97.15–35 Emergency training, musters, and drills.

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

[CGD 84–069, 61 FR 25289, May 20, 1996]

§ 97.15–55 Requirements for fuel oil.

(a) It shall be the duty of the chief engineer to cause an entry in the log to 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 § 97.01–2)) 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 17011, Dec. 30, 1965, as amended by CGFR 68–82, 33 FR 18901, Dec. 18, 1968; USCG–2000–7790, 65 FR 58461, Sept. 29, 2000]

§ 97.15–60 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 91.25–20(a)(1) and 91.25–20(a)(2) in § 91.25–20 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.

§ 97.15–75 Test of inflatable hopper gate seals on Great Lakes bulk dry cargo vessels.

(a) It is the duty of the Master to ensure that the inflatable hopper gate seals installed on vessels required to meet the damage stability requirements of subpart H of part 172 of this chapter are tested after each carriage of cargo.

(b) Where inflatable hopper gate seals are installed, the test must consist of inflating the seals and assuring they hold the design pressure for at least 15 minutes without a drop in pressure.

(c) The date of the test and the condition of the equipment must be noted in the vessel's official logbook.

[CGD 80–159, 51 FR 33059, Sept. 18, 1986]

Subpart 97.16—Auto Pilot

§ 97.16–1 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;

(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 5964, Jan. 31, 1977]

Subpart 97.19—Maneuvering Characteristics

§ 97.19–1 Data required.

For each ocean and coastwise vessel of 1,600 gross tons or 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 or 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]

Subpart 97.20—Whistling

§ 97.20–1 Unnecessary whistling prohibited.

(a) The unnecessary sounding of the vessel's whistle is prohibited within any harbor limits of the United States.

Subpart 97.25—Searchlights

§ 97.25–1 Improper use prohibited.

(a) No person shall flash or cause to be flashed the rays of a searchlight or other blinding light onto the bridge or into the pilothouse of any vessel under way.

Subpart 97.27—Lookouts

§ 97.27–5 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.

Subpart 97.30—Reports of Accidents, Repairs, and Unsafe Equipment

§ 97.30–1 Repairs to boilers 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 to the port where the repairs are to be made.

§ 97.30–5 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.

§ 97.30–10 Notice required before repair.

(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.

Subpart 97.33—Communication Between Deckhouses

§ 97.33–1 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 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 26007, May 23, 1996]

Subpart 97.34—Work Vests

§ 97.34–1 Application.

(a) Provisions of this subpart shall apply to all vessels inspected and certificated in accordance with this subchapter.

§ 97.34–5 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.

[CGD 78–174A, 51 FR 4350, Feb. 4, 1986]

§ 97.34–10 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.

§ 97.34–15 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.

§ 97.34–20 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.

§ 97.34–25 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.

[CGD 78–174A, 51 FR 4350, Feb. 4, 1986]

Subpart 97.35—Logbook Entries

§ 97.35–1 Application.

(a) Except as specifically noted, the provisions of this subpart shall apply to all vessels other than motorboats and barges. Motorboats on an international or intercoastal voyage may be required to carry a logbook in accordance with § 97.35–10.

§ 97.35–3 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 26007, May 23, 1996]

§ 97.35–5 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) Steering Gear, Whistle, and Means of Communication. Prior to departure. See § 97.15–3.

(c) Drafts and Load Line Markings. Prior to leaving port, ocean, coastwise, and Great Lakes services only. See § 97.15–5.

(d) Verification of vessel compliance with applicable stability requirements. After loading and prior to departure and at all other times necessary to assure the safety of the vessel. See § 97.15–7.

(e) Loading doors. Where applicable, every closing and any opening when not docked. See § 97.15–17.

(f) Hatches and other openings. All openings and closings, or leaving port without closing. Except vessels on protected waters. See § 97.15–20.

(g) Emergency Lighting and Power Systems. Weekly and semi-annually. See § 97.15–30.

(h) Fuel oil data: Upon receipt of fuel oil on board. See § 97.15–55.

(i) Cargo gear inspections: At least once a month. See § 91.37–70 of this subchapter.

(j) Inflatable hopper gate seals. Where installed to comply with subpart G of part 172 of this chapter after each carriage of cargo. See § 97.15–75.

[CGFR 65–50, 30 FR 17011, Dec. 30, 1965, as amended by CGD 80–159, 51 FR 33059, Sept. 18, 1986; CGD 89–037, 57 FR 41823, Sept. 11, 1992; CGD 84–069, 61 FR 25289, May 20, 1996]

Subpart 97.36—Display of Plans

§ 97.36–1 When required.

Barges with sleeping accommodations for more than six persons and all self-propelled vessels shall have permanently exhibited for the guidance of the officer in charge of the vessel the following plans:

(a) 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 aforementioned details may be set out in any other medium, such as a booklet or on computer software, provided that the aforementioned details are available to each officer and a copy is retained on board at all times and is accessible during emergencies. For vessels constructed on or after September 30, 1997 or 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). These identical symbols can also be found in ASTM Adjunct F 1626 (incorporated by reference, see §97.01–2).

(b) 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.

(c) The aforementioned information shall be kept up-to-date, any alteration being recorded in the applicable medium as soon as practicable.

[CGD 95–028, 62 FR 51207, Sept. 30, 1997, as amended by USCG–2000–7790, 65 FR 58461, Sept. 29, 2000]

Subpart 97.37—Markings for Fire and Emergency Equipment, Etc.

§97.37–1 Application.

(a) The provisions of this subpart, with the exception of §97.37–90, 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 §97.37–90.

§97.37–3 General.

(a) It is the intent of this subpart to provide such markings as are necessary for the guidance of the person on board in case of an 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.

§97.37–5 General alarm bell contact maker.

Each general alarm contact maker must be marked in accordance with requirements in subchapter J (Electrical Engineering Regulations) of this chapter.

[CGD 74–125A, 47 FR 15232, Apr. 8, 1982]

§97.37–7 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]

§97.37–9 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 33881, Jun. 7, 2012]

§97.37–10 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]

§ 97.37–11 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 33881, Jun. 7, 2012]

§ 97.37–13 Fire extinguishing system controls.

The control cabinets or spaces containing valves or manifolds for the various fire extinguishing systems must be distinctly marked in conspicuous red letters at least 2 inches high: ''[STEAM/CARBON DIOXIDE/CLEAN AGENT/FOAM/WATER SPRAY—as appropriate] FIRE APPARATUS.''.

[USCG–2006–24797, 77 FR 33881, Jun. 7, 2012]

§ 97.37–15 Fire hose stations.

(a) Each fire hydrant shall be identified in red letters and figures at least two 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]

§ 97.37–20 Self-contained breathing apparatus.

(a) Lockers or spaces containing self-contained breathing apparatus shall be marked ''SELF-CONTAINED BREATHING APPARATUS.''

(b) [Reserved]

§ 97.37–23 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]

§ 97.37–25 Emergency lights.

(a) All emergency lights shall be marked with a letter ''E'' at least ½ inch high.

(b) [Reserved]

§ 97.37–33 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]

§ 97.37–35 Rudder orders.

(a) At all steering stations, there shall be installed a suitable notice on the wheel or device or 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]

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

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

[CGD 84–069, 61 FR 25289, May 20, 1996]

§ 97.37–47 Portable magazine chests.

(a) Portable magazine chests shall be marked in letters at least 3 inches high:

''PORTABLE MAGAZINE CHEST—FLAMMABLE—KEEP LIGHTS AND FIRE AWAY.''

(b) [Reserved]

§ 97.37–50 Ventilation alarm failure.

(a) The alarm required by § 92.15–10(d)(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 15286, Dec. 6, 1966]

§ 97.37–60 Watertight doors.

Quick-acting Class I watertight doors fitted in accordance with the requirements in § 170.255(d) of this chapter must be marked ''KEEP THIS DOOR CLOSED''.

[CGD 80–129, 51 FR 33059, Sept. 18, 1986]

§ 97.37–90 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 §§ 97.37–5 through 97.37–50 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 17011, Dec. 30, 1965, as amended by CGFR 66–33, 31 FR 15286, Dec. 6, 1966]

Subpart 97.40—Markings on Vessels

§ 97.40–1 Application.

(a) The provisions of this subpart shall apply to all vessels except as specifically noted.

§ 97.40–5 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]

§ 97.40–10 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 at any place at the stern of the vessel as may be necessary for easy observation. 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 location 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 17011, Dec. 1965, as amended by CGD 89–037, 57 FR 41823, Sept. 11, 1992]

§ 97.40–15 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.

Subpart 97.45—Carrying of Excess Steam

§ 97.45–1 Master and chief engineer responsible.

It shall be the duty of the master and the chief engineer 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 inoperable.

[CGD 95–028, 62 FR 51207, Sept. 30, 1997]

Subpart 97.47—Routing Instructions

§ 97.47–1 All persons must comply.

All licensed masters, officers, and certificated seamen on U.S. vessels must strictly comply with routing instructions issued by competent naval authority.

[CGD 95–027, 61 FR 26008, May 23, 1996]

Subpart 97.50—Compliance With Provisions of Certificate of Inspection

§ 97.50–1 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 97.53—Exhibition of Merchant Mariner Credential

§ 97.53–1 Officers.

All officers on a vessel must have their licenses or officer endorsements conspicuously displayed.

[USCG–2006–24371, 74 FR 11265, Mar. 16, 2009]

Subpart 97.55—De-Energizing of Cargo Hold Lighting Circuits When Grain or Other Combustible Bulk Cargo Is Carried

§ 97.55–1 Master's responsibility.

Before loading bulk grain or any bulk solid cargo to which §148.435 of this chapter applies, the master shall have the lighting circuits to cargo compartments in which the grain or bulk solid 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.

[USCG–2009–0091, 75 FR 64591, Oct. 19, 2010]

§ 97.55–5 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.

Subpart 97.80—Operation of Vehicles in Enclosed Locations

§ 97.80–1 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 15286, Dec. 6, 1966, as amended by CGFR 69–72, 34 FR 17485, Oct. 29, 1969; CGD 95–027, 61 FR 26008, May 23, 1996]

Subpart 97.90—Pilot Boarding Operations

§ 97.90–1 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 97.95—Person in Charge of Transfer of Liquid Cargo in Bulk

SOURCE: CGD 79–116, 60 FR 17157, Apr. 4, 1995, unless otherwise noted.

§ 97.95–1 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 98—SPECIAL CONSTRUCTION, ARRANGEMENT, AND OTHER PROVISIONS FOR CERTAIN DANGEROUS CARGOES IN BULK

Subpart 98.01—General

Sec.
98.01–1 Applicability.
98.01–3 Incorporation by reference.

Subpart 98.25—Anhydrous Ammonia in Bulk

98.25–1 Applicability.
98.25–5 How anhydrous ammonia may be carried.
98.25–10 Design and construction of cargo tanks.
98.25–15 Markings.
98.25–20 Installation of cargo tanks.
98.25–30 Lagging.
98.25–35 Refrigerated systems.
98.25–40 Valves, fittings, and accessories.
98.25–45 Liquid level gaging device.

98.25–50 Filling and discharge pipes.
98.25–55 Cargo piping.
98.25–60 Safety relief valves.
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Subpart 98.30—Portable Tanks

98.30–1 Applicability.
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98.30–11 Cargo pumps.
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98.30–15 Leakage containment.
98.30–17 Qualifications of person in charge.
98.30–19 Supervision by person in charge.
98.30–21 Inspection prior to transfer.
98.30–23 Requirements for transfer; general.
98.30–25 Requirements for transfer; cargo handling system.
98.30–27 Connections.
98.30–29 Piping incompatible products.
98.30–31 Conditions for pumping.
98.30–33 Warning signals.
98.30–35 Warning sign at gangway.
98.30–37 Firefighting requirements.
98.30–39 Alternate fire extinguishing system.

Subpart 98.31—Control of Pollution From NLS Cargoes on Oceangoing Offshore Supply Vessels

98.31–5 Applicability.
98.31–10 Certificate of inspection and NLS certificate endorsements.
98.31–15 Operating requirements.

Subpart 98.33—Portable Tanks for Certain Grade E Combustible Liquids and Other Regulated Materials

98.33–1 Applicability.
98.33–3 Cargoes authorized.
98.33–5 Portable tanks authorized.
98.33–7 Pipe and hose connections.
98.33–9 Stowage.
98.33–11 Smoking.
98.33–13 Cargo-handling systems.
98.33–15 Transfers.

AUTHORITY: 33 U.S.C. 1903; 46 U.S.C. 3306, 3307, 3703; 49 U.S.C. App. 1804; 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 17022, Dec. 30, 1965, unless otherwise noted.

EDITORIAL NOTE: Nomenclature changes to part 98 appear by USCG–2009–0702, 74 FR 49232, Sept. 25, 2009.

Subpart 98.01—General

§ 98.01–1 Applicability.

(a) The provisions of this part shall apply to all self-propelled cargo vessels which carry in bulk any of the dangerous cargoes specifically noted in this part.

(b) [Reserved]

(c) The regulations for barges carrying any of the bulk chemical cargoes listed in subparts 98.01 through 98.25 are found in subchapter O of this chapter.

(d) [Reserved]

(e) Manned barges carrying any of the cargoes listed in Table 151.05 of this chapter will be considered individually by the Commandant and may be required to meet the applicable requirements of subchapter O of this chapter, as well as the requirements of this subchapter.

[CGFR 65–50, 30 FR 17022, Dec. 30, 1965, as amended by CGFR 70–10, 35 FR 3711, Feb. 25, 1970; CGD 84–043, 55 FR 37411, Sept. 11, 1990; 59 FR 17011, Apr. 11, 1994]

§ 98.01–3 Incorporation by reference.

(a) Certain standards and specifications 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 ones listed in paragraph (b) of this section, notice of change must be published in the FEDERAL REGISTER and the material made available to the public. All approved material is at the National Archives and Records Administration (NARA), and is 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 standards and specifications approved for incorporation by reference in this part and the sections affected, are:

American Society for Nondestructive Testing (ASNT)

4153 Arlingate Road, Caller # 28518, Columbus, OH, 43228–0518

ASNT ''Recommended Practice No. SNT-TC-1A (1988), Personnel Qualification and Certification in Nondestructive Testing'' .....98.25–97(c)(2)

American Society of Mechanical Engineers (ASME) International

Three Park Avenue, New York, N.Y. 10016–5990

ASME Boiler and Pressure Vessel Code, section V, Nondestructive Examination (1986) .....98.25–97(a)(1)

[CGD 85–061, 54 FR 50965, Dec. 11, 1989 as amended by USCG–1999–6216, 64 FR 53226, Oct. 1, 1999]

Subpart 98.25—Anhydrous Ammonia in Bulk

§ 98.25–1 Applicability.

(a) The regulations in this subpart apply to each self-propelled vessel that has anhydrous ammonia on board as a cargo, cargo residue, or vapor and that is not regulated under part 154 of this chapter.

(b) Any self-propelled vessel to which this subpart applies shall be inspected and certificated under this subchapter and subchapter D of this chapter.

[CGD 74–289, 44 FR 26008, May 3, 1979]

§ 98.25–5 How anhydrous ammonia may be carried.

(a) Anhydrous ammonia shall be carried in unfired pressure vessel type tanks independent of the structure as detailed in this part, except as otherwise provided in paragraph (b) of this section.

(b) When anhydrous ammonia is to be transported at its boiling temperature at or near atmospheric pressure, the Commandant may permit the use of alternate methods of storage if it is shown to his satisfaction that a degree of safety is obtained consistent with the minimum requirements of this subpart.

§ 98.25–10 Design and construction of cargo tanks.

(a) The cargo tanks shall meet the requirements for Class I, I-L, II, or II-L welded pressure vessels and shall be fabricated, inspected, and tested in accordance with the applicable requirements of part 54 of subchapter F (Marine Engineering) of this chapter.

(b) Unlagged cargo tanks subject to atmospheric temperatures shall be designed for a pressure of not less than 250 pounds per square inch gage.

(c) Where unrefrigerated cargo tanks are lagged as required by §§ 98.25–30 and 98.25–60, the tanks shall be designed for a pressure of not less than 215 pounds per square inch gage.

(d) Refrigerated cargo tanks, in which the temperature of the liquid ammonia is maintained below the normal atmospheric temperatures, shall be designed for a pressure of not less than the vapor pressure corresponding to the temperature of the liquid at which the system is to be maintained, plus 25 pounds per square inch gage.

(e) Each tank shall be provided with not less than a 15″×18″ diameter manhole, fitted with a cover located above the maximum liquid level and as close as possible to the top of the tank. Where access trunks are fitted to tanks, the diameter of the trunks shall be not less than 30 inches.

[CGFR 65–50, 30 FR 17022, Dec. 30, 1965, as amended by CGFR 68–82, 33 FR 18902, Dec. 18, 1968]

§ 98.25–15 Markings.

(a) Cargo tanks shall be marked in accordance with the requirements of § 54.10–20 of subchapter F (Marine Engineering) of this chapter.

(b) In addition to the markings required to be stamped on the tank, the legend, ''Anhydrous Ammonia'' shall be conspicuously and legibly marked upon the dome or upper portion of the tank in letters at least 4 inches high.

(c) All tank inlet and outlet connections, except safety relief valves, liquid level gaging devices and pressure gages shall be labeled to designate whether they terminate in the vapor or liquid

space. Labels of noncorrosive material may be attached to valves.

(d) All tank markings shall be permanently and legibly stamped in a readily visible position. If the tanks are lagged, the markings attached to the tank proper shall be duplicated on a corrosion resistant plate secured to the outside jacket of the lagging.

[CGFR 65–50, 30 FR 17022, Dec. 30, 1965, as amended by CGFR 68–82, 33 FR 18902, Dec. 18, 1968]

§ 98.25–20 Installation of cargo tanks.

(a) Independent tanks shall be arranged in the vessel so as to provide a minimum clearance of not less than 24 inches from the vessel's side and not less than 15 inches from the vessel's bottom. Where more than one tank is installed in a vessel, the distance between such tanks shall be not less than 15 inches, unless otherwise approved by the Commandant. Alternate provisions may be made for moving such tanks to provide for adequate inspection and maintenance of the vessel's structure and the tanks.

(b) The design shall show the manner in which the tanks are to be installed, supported, and secured in the vessel and shall be approved prior to installation. Tanks shall be supported in steel saddles and securely anchored in place. If the tanks are required to be stress-relieved no appendages shall be welded to the tanks after they have been stress-relieved unless authorized by the Commandant.

(c) Tanks may be located in dry cargo holds or in liquid cargo tanks or may be installed ''on deck'' or ''under deck'' with the tank protruding above deck. On installations where a portion of the tank extends above the weather deck, provision shall be made to maintain the weathertightness of the deck, except that vessels operating on protected inland waters may have tanks located in the holds of hopper type barges without the watertightness of the deck being maintained. All tanks shall be installed with the manhole opening and fittings located above the weather deck.

(d) The anhydrous ammonia tanks may be installed in the bulk liquid cargo tanks provided the liquid surrounding the enclosed anhydrous ammonia tanks complies with the following chemical and physical properties:

(1) Boiling point above 125 °F. at atmospheric pressure.

(2) Inert to ammonia at 100 °F. at atmospheric pressure.

(3) Noncorrosive in the liquid and vapor phase to the ammonia tanks and piping.

[CGFR 65–50, 30 FR 17022, Dec. 30, 1965, as amended by CGFR 70–10, 35 FR 3711, Feb. 25, 1970]

§ 98.25–30 Lagging.

(a) Lagged tanks shall be covered with an incombustible insulation material of a thickness to provide a thermal conductance of not more than 0.075 B.t.u. per square foot per degree F. differential in temperature per hour. The insulating material shall be of an approved type complying with the requirements of subpart 164.009 of subchapter Q (Specifications) of this chapter, and shall be given a vapor proof coating with fire retardant material acceptable to the Commandant. Tanks exposed to the weather shall have the insulation and vapor proof coating covered with a removable sheet metal jacket of not less than 0.083 inch thickness and flashed around all openings so as to be weather tight. Materials other than sheet metal may be used to cover the insulation and vapor proof coating when specifically authorized by the Commandant.

(b) Where unlagged tanks are installed in insulated holds or insulated 'tween deck spaces, such tanks shall be considered lagged provided the thermal conductance of the insulation is not less than that required by paragraph (a) of this section.

§ 98.25–35 Refrigerated systems.

(a) Where refrigerated systems are installed to maintain the temperature of the liquid below atmospheric, at least two complete refrigeration plants automatically regulated by pressure variations within the tanks shall be provided, each to be complete with the necessary auxiliaries for proper operation. The capacity of each refrigeration compressor shall be sufficient to maintain the vapor pressure in the tanks during the peak atmospheric

temperature conditions below the pressure for which the tanks are designed.

(b) An alternate arrangement may consist of three compressors, any two of which shall be capable of maintaining the vapor pressure in the tanks during peak atmospheric temperature conditions below the pressure for which the tanks are designed, the third compressor acting as a stand-by unit.

(c) Refrigerated tanks shall be insulated in conformance with the requirements of § 98.25–30.

§ 98.25–40 Valves, fittings, and accessories.

(a) All valves, flanges, fittings and accessory equipment shall be of a type suitable for use with anhydrous ammonia and shall be made of steel, or malleable or nodular iron meeting the requirements of § 56.60–1 of subchapter F (Marine Engineering) of this chapter. Valves shall be fitted with noncorrosive material suitable for ammonia service. Valves, flanges, and pipe fittings shall be of the square or round tongue and groove type or raised-face, United States of America Standard 300-pound standard minimum, fitted with suitable soft gasket material. Welded fittings shall be used wherever possible and the number of pipe joints shall be held to a minimum. Screwed joints are not permitted for pipe diameters exceeding 2 inches. Nonferrous materials, such as copper, copper alloys and aluminum alloys, shall not be used in the construction of valves, fittings or accessory equipment. Brazed joints are prohibited.

(b) Each tank shall be provided with the necessary fill and discharge liquid and vapor shut-off valves, safety relief valves, liquid level gaging devices, thermometer well and pressure gage, and shall be provided with suitable access for convenient operation. Connections to tanks installed below the weather deck shall be made to a trunk or dome extending above the weather deck. Connections to the tanks shall be protected against mechanical damage and tampering. Other openings in the tanks, except as specifically permitted by this part, are prohibited.

(c) All connections to the tanks, except safety devices and liquid level gaging devices, shall have manually operated shut-off valves located as close to the tank as possible.

(d) Excess flow valves where required by this section shall close automatically at the rated flow of vapor or liquid as specified by the manufacturer. The piping, including valves, fittings and appurtenances, protected by an excess flow valve, shall have a greater capacity than the rated flow of the excess flow valve.

(e) Liquid level gaging devices which are so constructed that outward flow of tank contents shall not exceed that passed by a No. 54 drill size opening, need not be equipped with excess flow valves.

(f) Pressure gage connections need not be equipped with excess flow valves if the openings are not larger than No. 54 drill size.

(g) Excess flow valves may be designed with a bypass, not to exceed a No. 60 drill size opening, to allow equalization of pressure.

(h) Prior to disconnecting shore lines, the pressure in the liquid and vapor lines shall be relieved through suitable valves installed at the loading header.

(i) Relief valves shall be fitted in liquid lines which may be subject to excessive pressure caused by liquid full condition, and the escape from the relief valves shall be piped to the venting system.

(j) The pressure gage shall be located at the highest practical point. The thermometer well shall terminate in the liquid space and be attached to the shell by welding with the end of the fitting being provided with a gas-tight screwed plug or bolted cover.

[CGFR 65–50, 30 FR 17022, Dec. 30, 1965, as amended by CGFR 68–82, 33 FR 18902, Dec. 18, 1968; CGFR 70–10, 35 FR 3712, Feb. 25, 1970]

§ 98.25–45 Liquid level gaging device.

(a) Each tank shall be fitted with a liquid level gaging device of suitable design to indicate the maximum level to which the tank may be filled with liquid at temperatures between 20 °F. and 130 °F.

(b) Liquid level gaging devices shall be of the following types: magnetic, rotary tube, slip tube, fixed tube, automatic float, or other types acceptable to the Commandant.

(c) Gaging devices that require bleeding of the product to the atmosphere, such as rotary tube, fixed tube, and slip tube, shall be so designed that the bleed valve maximum opening is not larger than a No. 54 drill size, unless provided with an excess flow valve.

(d) Gaging devices shall have a design pressure of at least 250 pounds per square inch.

(e) Gage glasses of the columnar type are prohibited.

§ 98.25–50 Filling and discharge pipes.

(a) Filling connections shall be provided with one of the following:

(1) Combination back pressure check valve and excess flow valve;

(2) One double or two single back pressure check valves; or

(3) A positive shut-off valve in conjunction with either an internal back pressure check valve or an internal excess flow valve.

(b) All other liquid and vapor connections to tanks, except filling connections, safety relief valves, and liquid level gaging devices and pressure gages described in § 98.25–40(e) and (f) shall be equipped with automatic excess flow valves; or in lieu thereof, may be fitted with quick closing internal stop valves, which, except during filling and discharge operations, shall remain closed. The control mechanism for such valves shall be provided with a secondary remote control of a type acceptable to the Commandant.

(c) The excess flow, internal stop or back pressure check valves shall be located on the inside of the tank or outside where the piping enters the tank. In the latter case, installation shall be made in such a manner that any undue strain will not cause breakage between the tank and the excess flow or internal stop valve.

(d) Where the filling and discharge are made through a common nozzle at the tank, and the connection is fitted with a quick-closing internal stop valve as permitted in paragraph (b) of this section, the back pressure check valve or excess flow valve is not required, provided, however, a positive shut-off valve is installed in conjunction with the internal stop valve.

[CGFR 65–50, 30 FR 17022, Dec. 30, 1965, as amended by CGFR 70–10, 35 FR 3712, Feb. 25, 1970]

§ 98.25–55 Cargo piping.

(a) Piping shall be of seamless steel meeting the requirements of § 56.60–1 of subchapter F (Marine Engineering) of this chapter. The piping shall be of not less than Schedule 40 thickness. In case of piping on the discharge side of the liquid pumps or vapor compressors, the design shall be for a pressure of not less than the pump or compressor relief valve setting; or if the piping is not fitted with relief valves, the design pressure shall not be less than the total discharge head of the pump or compressor.

(b) Where necessary, provision shall be made for expansion and contraction of piping by means of seamless steel pipe expansion bends. Special consideration will be given for packless type expansion joints. Slip type expansion joints are prohibited. Piping shall be provided with adequate support to take the weight of the piping off the valves and fittings.

[CGFR 65–50, 30 FR 17022, Dec. 30, 1965, as amended by CGFR 68–82, 33 FR 18902, Dec. 18, 1968]

§ 98.25–60 Safety relief valves.

(a) Each tank shall be fitted with two or more approved safety relief valves, designed, constructed, and flow-tested for capacity in conformance with subpart 162.018 of subchapter Q (Specifications) of this chapter.

(b) Each safety relief valve shall start to discharge at a pressure not in excess of the design pressure of the tank.

(c) Safety relief valves shall be attached to the tank near the highest point of the vapor space. Shutoff valves shall not be installed between the tanks and the safety relief valves, except manifolds for mounting multiple safety relief valves may be fitted with acceptable interlocking three-way valves so arranged at all times as to permit at any position of the three-way valve, an unrestricted flow of vapors through at least one port. When two

safety relief valves are mounted in parallel on both the upper outlets of the three-way valve, the arrangement shall be such as to permit at least one safety relief valve to be operative at all times.

(d) Each safety valve shall be tested in the presence of a marine inspector at the site of installation before or after mounting prior to being placed in service. The tests shall prove that the safety relief valve will start to discharge at a pressure not in excess of the maximum allowable pressure of the tank.

[CGFR 68–82, 33 FR 18902, Dec. 18, 1968]

§ 98.25–65 Filling density.

(a) The filling density, or the percent ratio of the liquefied gas that may be loaded in the tank to the weight of the water the tank will hold at 60 °F., shall not exceed 56 percent for unlagged tanks and 58 percent for lagged or refrigerated tanks.

§ 98.25–70 Venting.

(a) Except as provided in paragraph (b) of this section, each safety valve installed on a cargo tank shall be connected to a branch vent of a venting system which shall be constructed so that the discharge of gas will be directed vertically upward to a point at least 10 feet above the weather deck or the top of any tank or house located above the weather deck.

(b) The capacity of branch vents or vent headers shall depend upon the number of cargo tanks connected to such branch or header as provided in Table 98.25–70(b).

TABLE 98.25–70(b)—CAPACITY OF BRANCH VENTS OR VENT HEADERS

Number of cargo tanks	Percent of total valve discharge
1 or 2	100
3	90
4	80
5	70
6 or more	60

(c) In addition to the requirement specified in paragraph (b) of this section, the size of the branch vents or vent headers shall be such that the back pressure in relief valve discharge lines shall not be more than 10 percent of the safety relief valve setting.

(d) Return bends and restrictive pipe fittings are prohibited. Vents and headers shall be so installed as to prevent stresses on safety relief valve mountings.

(e) When vent discharge risers are installed, they shall be so located as to provide protection against physical damage and be fitted with loose raincaps.

(f) No shut-off valve shall be fitted in the venting system between the safety relief valve and the vent outlets. Suitable provision shall be made for draining the venting system if liquid can collect therein.

[CGFR 65–50, 30 FR 17022, Dec. 30, 1965, as amended by CGFR 70–10, 35 FR 3712, Feb. 25, 1970; 35 FR 6431, Apr. 22, 1970]

§ 98.25–75 Ventilation.

(a) All enclosed spaces containing cargo tanks fitted with bottom outlet connections shall be provided with mechanical ventilation of sufficient capacity to assure a change of air every 3 minutes. Where cargo tanks are fitted with top outlet connections, the enclosed spaces containing such tanks shall be fitted with efficient natural or mechanical ventilation.

(b) Enclosed compartments in which machinery such as cargo pumps or vapor compressors are located shall be adequately ventilated.

§ 98.25–80 Cargo hose.

(a) Cargo hose fabricated of seamless steel pipe with swivel joints, wire braided armored rubber or other hose material acceptable to the Commandant, shall be fitted to the liquid or vapor lines during filling and discharging of the cargo tanks.

(b) Hose subject to tank pressure shall be designed for a bursting pressure of not less than five times the maximum safety relief valve setting of the tank.

(c) Hose subject to discharge pressure of pumps or vapor compressors shall be designed for a bursting pressure of not less than five times the pressure of setting of the pump or compressor relief valve.

(d) Before being placed in service, each new cargo hose, with all necessary

fittings attached, shall be hydrostatically tested by the manufacturer to a pressure of not less than twice the maximum pressure to which it may be subjected in service. The hose shall be marked with the maximum pressure guaranteed by the manufacturer.

§ 98.25–85 Electrical bonding.

(a) Each cargo tank shall be electrically grounded to the hull. The cargo vessel shall be electrically connected to the shore piping prior to connecting the cargo hose. This electrical connection shall be maintained until after the cargo hose has been disconnected and any spillage has been removed.

[CGFR 65–50, 30 FR 17022, Dec. 30, 1965, as amended by CGFR 70–10, 35 FR 3712, Feb. 25, 1970]

§ 98.25–90 Special operating requirements.

(a) Repairs involving welding or burning shall not be undertaken on the cargo tanks or piping while anhydrous ammonia in either the liquid or vapor state is present in the system.

(b) During the time anhydrous ammonia is laden in the tanks the vessel shall be under constant surveillance.

(c) Authorization from the Commandant (CG–OES) shall be obtained to transport lading other than anhydrous ammonia in the cargo tanks.

(d) Sufficient hose stations shall be installed with adequate water supply so that if leakage of anhydrous ammonia occurs the vapors may be removed by use of a stream of water.

(e)(1) At least two units of approved self-contained breathing apparatus, one stowed forward of the cargo tanks and one stowed aft of the cargo tanks, shall be carried on board the vessel at all times.

(2) All approved self-contained breathing apparatus, masks and respiratory protective devices shall be of types suitable for starting and operating at the temperatures encountered, and shall be maintained in good operating condition.

(3) Personnel involved in the filling or discharge operations shall be adequately trained in the use of the equipment.

(4) For all self-propelled cargo vessels, during filling or discharge operations every person on the vessel shall carry on his person or have close at hand at all times a canister mask approved for ammonia; or each person shall carry on his person a respiratory protective device which will protect the wearer against ammonia vapors and provide respiratory protection for emergency escape from a contaminated area which would result from cargo leakage. This respiratory protective equipment shall be of such size and weight that the person wearing it will not be restricted in movement or in the wearing of lifesaving device.

(f) While fast to a dock, a vessel during transfer of bulk cargo shall display a red flag by day or a red light by night, which signal shall be so placed that it will be visible on all sides. When at anchor, a vessel during transfer of bulk cargo shall display a red flag by day, which signal shall be so placed that it will be visible on all sides.

[CGFR 70–10, 35 FR 3712, Feb. 25, 1970, as amended by CGD 82–063b, 48 FR 4781, Feb. 3, 1983; CGD 95–072, 60 FR 50464, Sept. 29, 1995; CGD 96–041, 61 FR 50730, Sept. 27, 1996; USCG–2012–0832, 77 FR 59780, Oct. 1, 2012]

§ 98.25–95 Tests and inspections.

(a) Each tank shall be subjected to the tests and inspections described in this section in the presence of a marine inspector, except as otherwise provided in this part.

(1) An internal inspection of the tank is conducted within—

(i) Ten years after the last internal inspection if the tank is a pressure-vessel type cargo tank on an unmanned barge described under § 151.01–25(c) of this chapter and carrying cargo at temperatures of −67 °F (−55 °C) or warmer; or

(ii) Eight years after the last internal inspection if the tank is of a type other than that described in paragraph (a)(1)(i) of this section.

(2) An external examination of unlagged tanks and the visible parts of lagged tanks is made at each inspection for certification and periodic inspection. The owner shall ensure that the amount of insulation deemed necessary by the marine inspector is removed from insulated tanks during

each internal inspection to allow spot external examination of the tanks and insulation, or the thickness of the tanks may be gauged by a nondestructive means accepted by the marine inspector without the removal of insulation.

(3) If required by the Officer in Charge, Marine Inspection the owner shall conduct nondestructive testing of each tank in accordance with § 98.25–97.

(4) If the tank is a pressure vessel type cargo tank with an internal inspection interval of 10 years, and is 30 years old or older, determined from the date it was built, the owner shall conduct nondestructive testing of each tank in accordance with § 98.25–97, during each internal inspection.

(b) A hydrostatic test of 1½ times the maximum allowable pressure as determined by the safety relief valve setting shall be made at any time that the inspector considers such hydrostatic test necessary to determine the condition of the tank. If the jacket and lagging are not removed during the hydrostatic tests prescribed in this paragraph, the tank shall hold the hydrostatic test pressure for at least 20 minutes without a pressure drop.

(c) The safety relief valves shall be popped in the presence of a marine inspector by either liquid, gas or vapor pressure at least once every four years to determine the accuracy of adjustment and, if necessary, shall be reset.

[CGFR 65–50, 30 FR 17022, Dec. 30, 1965, as amended by CGFR 67–86, 32 FR 17622, Dec. 9, 1967; CGD 85–061, 54 FR 50965, Dec. 11, 1989; USCG 1999–4976, 65 FR 6503, Feb. 9, 2000]

§ 98.25–97 Nondestructive testing.

(a) Before nondestructive testing may be conducted to meet § 98.25–95(a)(3) and (4), the owner shall submit a proposal to the Officer in Charge, Marine Inspection for approval that includes—

(1) The test methods and procedures to be used, all of which must meet section V of the ASME Boiler and Pressure Vessel Code (1986);

(2) Each location on the tank to be tested; and

(3) The test method and procedure to be conducted at each location on the tank.

(b) If the Officer in Charge, Marine Inspection rejects the proposal, the Officer in Charge, Marine Inspection informs the owner of the reasons why the proposal is rejected.

(c) If the Officer in Charge, Marine Inspection accepts the proposal, then the owner shall ensure that—

(1) The proposal is followed; and

(2) Nondestructive testing is performed by personnel meeting ASNT ''Recommended Practice No. SNT-TC-1A (1988), Personnel Qualifications and Certification in Nondestructive Testing.''

(d) Within 30 days after completing the nondestructive test, the owner shall submit a written report of the results to the Officer in Charge, Marine Inspection.

[CGD 85–061, 54 FR 50965, Dec. 11, 1989]

Subpart 98.30—Portable Tanks

SOURCE: CGD 73–172, 39 FR 22954, June 25, 1974, unless otherwise noted.

§ 98.30–1 Applicability.

(a) This subpart contains regulations concerning transfer of combustible liquids, certain flammable liquids, and other hazardous materials to or from portable tanks on vessels.

(b) This subpart applies to the following portable tanks:

(1) A marine portable tank (MPT);

(2) An IM 101 or IM 102 portable tank; and

(3) A portable tank authorized for liquid hazardous materials, other than liquefied gases, by the Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration (AAHMS), under an exemption issued in accordance with subpart B of 49 CFR part 107.

[CGD 84–043, 55 FR 37411, Sept. 11, 1990, as amended by CGD 97–057, 62 FR 51046, Sept. 30, 1997]

§ 98.30–2 Definitions.

(a) *IM 101 portable tank* and *IM 102 portable tank* mean a portable tank constructed in accordance with 49 CFR 178.270 through 178.272 and approved under 49 CFR 173.32a.

(b) *MPT* means a marine portable tank that was inspected and stamped

by the Coast Guard on or before September 30, 1992, and that meets the applicable requirements in this part and part 64 of this chapter.

[CGD 84–043, 55 FR 37411, Sept. 11, 1990]

§ 98.30–3 Vessels carrying MPTs.

Each MPT on a vessel to which this part applies must bear, on a metal or other corrosion-resistant tag—

(a) An inspection date for pressure relief devices and vacuum relief devices in accordance with paragraph (b) of § 64.79 of this chapter that is not more than 12 months earlier than the month in which the vessel is operated;

(b) An inspection date in accordance with paragraph (b) of § 64.81 of this chapter that is not more than 30 months earlier than the month during which the vessel is operated; and

(c) A hydrostatic test date in accordance with paragraph (b) of § 64.83 of this chapter that is not more than 60 months earlier than the month during which the vessel is operated.

[CGD 84–043, 55 FR 37411, Sept. 11, 1990]

§ 98.30–4 Vessels carrying portable tanks other than MPTs.

(a) Each portable tank, other than an MPT, on board a vessel to which this part applies must be one of the following:

(1) An IM 101 or IM 102 tank authorized for its contents in accordance with Columns 7 and 8C of the Hazardous Materials Table of 49 CFR 172.101.

(2) A portable tank authorized by the AAHMS under an exemption issued in accordance with subpart B of 49 CFR part 107, and

(i) According to the terms of the exemption, equivalent to an IM 101 or IM 102 portable tank; and

(ii) Authorized for its contents under the terms of the exemption or by written acknowledgment from the AAHMS.

(b) Each IM 101 or IM 102 portable tank must be tested and inspected in accordance with 49 CFR 173.32b, and used only as specified in 49 CFR 173.32c.

(c) Each portable tank authorized under an exemption from the AAHMS must be inspected and tested, maintained, and used in accordance with the terms of that exemption.

[CGD 84–043, 55 FR 37411, Sept. 11, 1990; 56 FR 13598, Apr. 3, 1991, as amended by CGD 95–072, 60 FR 50464, Sept. 29, 1995; CGD 96–041, 61 FR 50730, Sept. 27, 1996; CGD 97–057, 62 FR 51046, Sept. 30, 1997]

§ 98.30–5 Materials authorized for transfer to and from a portable tank.

(a) The following hazardous materials may be transferred to and from a portable tank under this subpart:

(1) Any Grade D or Grade E combustible liquid listed in § 30.25–1 of this chapter that does not meet the definition of any hazard class in 49 CFR part 173 other than that of ''flammable liquid'', ''combustible liquid'', or ''ORM-E'';

(2) Any corrosive liquid that—

(i) Is compatible with the materials of the tank;

(ii) Meets the definition of no other hazard class in 49 CFR part 173; and

(iii) Is authorized for transport in an IM 101 or IM 102 portable tank under subpart F of 49 CFR part 173;

(3) Any hazardous material listed in Table 98.30–5(a);

(4) Any environmentally hazardous substance, liquid, N.O.S., Class 9, listed in table 1 of appendix A of 49 CFR 172.101, and any aqueous solution of an environmentally hazardous substance, solid, N.O.S., Class 9, listed in that table, that meets the definition of ''hazardous substance'' in 49 CFR 171.8; and

(5) Other cargoes subject to regulation under 49 CFR parts 171 through 176 when authorized in writing by the Commandant. Requests for such authorization must be submitted as prescribed in § 153.900(d)(1) of this chapter.

TABLE 98.30–5(a)—CERTAIN HAZARDOUS MATERIALS AUTHORIZED FOR TRANSFER TO AND FROM PORTABLE TANKS

Acetone
Alcohols; flash point of 80 °F (27 °C) or less by open-cup test
Benzene
Gasoline
Mixtures of Hydrochloric acid and hydrofluoric acid containing not more than 36 percent hydrochloric acid or 2 percent hydrofluoric acid [1]
Methyl Ethyl Ketone
Toluene (Toluol)

NOTE:

[1] Each MPT must be lined with rubber or with material equally acid-resistant and equally strong and durable.

(b) Grade D and Grade E combustible liquids with a flash point of 100 °F (38 °C) or higher by closed cup test that are not listed by name in the Table of 49 CFR 172.101 may be transferred to and from an MPT or an IM 102 portable tank conforming to the entry for note ''T1'' of 49 CFR 172.102(c)(7)(i).

(c) Sulfuric acid having a concentration of not over 51 percent may be transferred to or from an MPT only if the MPT is lined with rubber or with material equally acid-resistant and equally strong and durable.

(d) Sulfuric acid having a concentration of 65.25 percent or greater may be transferred to or from any portable tank; *provided* that the corrosion rate on steel, measured at 100 °F (38 °C), of sulfuric acid having a concentration of greater than 65.25 percent is not greater than the corrosion rate of such an acid having a concentration of 65.25 percent.

(e) Environmentally hazardous substances (see paragraph (a)(4) of this section) may be transferred only to or from an IM 101 or IM 102 portable tank or an MPT.

(f) A hazardous material that may be transferred to and from an IM 102 portable tank may also be transferred to and from an IM 101 portable tank.

(g) No hazardous material not referred to in this section may be transferred to or from a portable tank on board a vessel.

[CGD 84–043, 55 FR 37411, Sept. 11, 1990; 55 FR 40755, Oct. 4, 1990, as amended by CGD 97–057, 62 FR 51046, Sept. 30, 1997]

§ 98.30–6 Lifting a portable tank.

No person may lift a portable tank with another portable tank.

[CGD 73–172, 39 FR 22954, June 25, 1974. Redesignated by CGD 84–043, 55 FR 37411, Sept. 11, 1990]

§ 98.30–7 Smoking.

No person may smoke within 50 feet of a portable tank on the deck on which the tank is stowed.

§ 98.30–8 Gaskets and lining.

No person may transfer a hazardous material to or from a portable tank on board a vessel unless each gasket and the lining of the portable tank are made of a material that is—

(a) Chemically compatible with the product for which the portable tank is approved; and

(b) Resistant to deterioration by the product for which the portable tank is approved.

[CGD 84–043, 55 FR 37412, Sept. 11, 1990]

§ 98.30–9 Stowage of portable tanks.

(a) No person may operate a vessel to which this subpart applies unless each portable tank is stowed on an open deck.

(b) No person may stow a portable tank—

(1) In the vicinity of another tank that contains a chemically incompatible product; and

(2) Unless all electrical equipment is explosion-proof or intrinsically safe, as defined in §§ 111.105–9 and 111.105–11 of this chapter, in the area of the tank and its associated equipment that is—

(i) Within 10 feet in any horizontal direction; and

(ii) Within 8 feet above the deck.

[CGD 73–172, 39 FR 22954, June 25, 1974, as amended by CGD 84–043, 55 FR 37412, Sept. 11, 1990; 55 FR 47477, Nov. 14, 1990]

§ 98.30–10 Pipe connections, and filling and discharge openings.

No person may transfer a hazardous material to or from a portable tank on board a vessel, unless each filling and discharge opening in the tank bottom is equipped with the following:

(a) For an IM 101 or IM 102 portable tank, the closures specified in 49 CFR 173.32c(g)(2); and

(b) For an MPT, the valves and closures specified in §§ 64.33 through 64.41 of this chapter.

[CGD 84–043, 55 FR 37412, Sept. 11, 1990]

§ 98.30–11 Cargo pumps.

No person may operate a cargo pump to transfer a product to or from a portable tank unless the pump is installed—

(a) Above deck; or

(b) Below deck, in conformance with subpart 32.60 of this chapter.

§ 98.30–13 Ground connection.

No person may transfer an inflammable or combustible product to or from a vessel unless—

(a) The portable tank and its pumping equipment is electrically grounded to the hull of the vessel; and

(b) The vessel is electrically grounded to an offshore platform, shore piping, or another vessel by a—

(1) Cargo hose constructed with an integral grounding wire if the end connections are used for electrical continuity; or

(2) Separate grounding that is maintained until the cargo hose is disconnected and drained.

§ 98.30–14 Requirements for ships carrying NLSs in portable tanks.

(a) The person in charge of a ship, except a ship under subpart 98.31 of this chapter, that carries an NLS in a portable tank shall ensure that—

(1) The ship's Certificate of Inspection is endorsed with the name of the NLS;

(2) Any letters issued by the Commandant (CG–OES) prescribing additional conditions for endorsement are attached; and

(3) Each operating requirement specified in writing by Commandant (CG–OES) as a condition for endorsement is met.

(b) To have a ship's Certificate of Inspection endorsed to allow the carriage of NLSs in portable tanks, the—

(1) Owner of the ship must make a request to the Commandant (CG–OES) following the procedures for requesting alternatives in § 153.10(a) of this chapter; and

(2) The ship must meet any design and equipment requirements specified in writing as a condition for the endorsement by the Commandant (CG–OES).

[CGD 81–101, 53 FR 28974, Aug. 1, 1988. Redesignated at CGD 84–043, 55 FR 37411, Sept. 11, 1990, and amended by CGD 84–043, 55 FR 37412, Sept. 11, 1990; CGD 95–072, 60 FR 50464, Sept. 29, 1995; CGD 96–041, 61 FR 50730, Sept. 27, 1996; USCG–2012–0832, 77 FR 59780, Oct. 1, 2012]

§ 98.30–15 Leakage containment.

(a) No person may transfer a product to or from a vessel unless there is a container or enclosed deck area that meets the requirements of this section under or around each transfer connection area.

(b) Each container or enclosed deck area must hold, in all conditions of vessel list or trim to be encountered during the transferring operation, 5 gallons or more and must have a means of draining or removing any leakage without mixing incompatible products or discharging into the water.

§ 98.30–17 Qualifications of person in charge.

(a) The operator or agent of each vessel shall designate the person in charge of a transfer of liquid cargo in bulk to or from a portable tank.

(b) Each person designated as person in charge of a transfer of liquid cargo in bulk to or from a portable tank shall—

(1) On a tank barge, hold a ''Tankerman-PIC'', restricted ''Tankerman-PIC'', ''Tankerman-PIC (Barge)'', or restricted ''Tankerman-PIC (Barge) endorsement on his or her merchant mariner credential or '' merchant mariner's document authorizing transfer of the classification of cargo involved;

(2) On a self-propelled tank vessel, or on a tankship, carrying oil or hazardous material in bulk, hold a valid merchant mariner credential, license, or certificate authorizing service as a master, mate, pilot, engineer, or operator aboard that vessel, and a Tankerman-PIC or a restricted Tankerman (PIC) endorsement.

[CGD 79–116, 60 FR 17157, Apr. 4, 1995, as amended by 62 FR 25135, May 8, 1997; USCG–2006–24371, 74 FR 11265, Mar. 16, 2009]

§ 98.30–19 Supervision by person in charge.

(a) No person may connect, top off, disconnect, or engage in any other critical product transfer operation unless the person in charge designated in § 98.30–17, personally supervises the operation.

(b) No person may start the flow of a product to or from a portable tank unless instructed to do so by the person in charge.

(c) No person may transfer a product to or from a portable tank unless the person in charge is in the immediate

vicinity of the transfer operation and immediately available to the person transferring the product.

§ 98.30–21 Inspection prior to transfer.

No person may transfer to or from a portable tank a product with a flashpoint of less than 300 °F unless the person in charge of the transfer determines that—

(a) Each warning signal and sign required in §§ 98.30–33 and 98.30–35 is displayed;

(b) No repair work in the vicinity of any portable tank is done without permission of the person in charge of the transfer operation; and

(c) Riveting, welding, burning, or a similar operation is not done in the vicinity of a portable tank unless an inspection by the person in charge of the transfer ensures that the operation can be done safely.

§ 98.30–23 Requirements for transfer; general.

No person may transfer a product to or from a portable tank unless—

(a) The vessel's moorings are strong enough to hold in all expected conditions of surge, current, and weather and are long enough to allow adjustment for changes in draft, drift, and tide during the transfer operation;

(b) Transfer hoses or loading arms are long enough to allow the vessel to move the limits of its mooring without placing strain on the hose, loading arm, or transfer piping system;

(c) Each transfer hose is supported in a manner that prevents strain on its coupling;

(d) Each part of the transfer system necessary to allow the flow of the product is lined up for the transfer;

(e) Each transfer hose has no loose covers, kinks, bulges, soft spots, and no gouges, cuts, or slashes that penetrate the hose reinforcement;

(f) Each coupling meets the requirements of § 98.30–27;

(g) Each scupper or drain in a discharge containment system is closed;

(h) The person in charge of the transfer operations on the transferring vessel or facility and the person in charge of the transfer operations on the receiving vessel or facility have held a conference, to ensure that each person in charge understands—

(1) The identity of the product to be transferred;

(2) The sequence of transfer operations;

(3) The transfer rate;

(4) The name or title and location of each person participating in the transfer operation;

(5) Particulars of the transferring and receiving systems;

(6) Critical stages of the transfer operations;

(7) Federal, state, and local rules that apply to the transfer of dangerous articles and combustible liquids;

(8) Emergency procedures;

(9) Discharge containment procedures;

(10) Discharge reporting procedures;

(11) Watch or shift arrangement; and

(12) Transfer shutdown procedures;

(i) The person in charge of the transfer operations on the transferring vessel or facility and the person in charge of transfer operations on the receiving vessel or facility agree to begin the transfer operations; and

(j) Each person in charge required in this subpart is present.

§ 98.30–25 Requirements for transfer; cargo handling system.

No person may transfer a product to or from a portable tank unless the cargo handling system meets the requirements in subpart F of part 64 of this chapter.

§ 98.30–27 Connections.

(a) Each person who makes a connection for a transfer operation shall—

(1) Use suitable material in joints and couplings to make a tight seal;

(2) Use a bolt in at least every other hole and in no case less than four bolts in each temporary connection utilizing an American National Standards Institute (ANSI) standard flange coupling;

(3) Use a bolt in each hole of couplings other than ANSI standard flange couplings;

(4) Use a bolt in each hole of each permanently connected flange coupling;

(5) Use bolts of the same size in each bolted coupling; and

(6) Tighten each bolt and nut uniformly to distribute the load.

(b) No person who makes a connection for a transfer operation may use any bolt that shows signs of strain or is elongated or deteriorated.

(c) No person may use a connection for transfer operations unless it is—

(1) A bolted or full threaded connection; or

(2) A quick-connect coupling accepted by the Coast Guard.

§ 98.30–29 Piping incompatible products.

No person may pipe a portable tank with another tank that contains a chemically incompatible product.

§ 98.30–31 Conditions for pumping.

No person may start pumping a product to or from a portable tank or if started, continue to pump if—

(a) There is an electrical storm;

(b) A fire occurs—

(1) On the deck;

(2) On the vessel;

(3) In the vicinity; or

(c) The cargo hose ruptures or leaks.

§ 98.30–33 Warning signals.

(a) If the vessel is moored, no person may transfer to or from a portable tank a product with a flashpoint of less than 300 °F unless the person in charge displays a—

(1) Red flag by day; and

(2) Red electric lantern by night.

(b) If the vessel is at anchor, no person may transfer to or from a portable tank a product with a flashpoint of less than 300 °F unless the person in charge displays a red flag.

(c) The signal required in paragraphs (a) and (b) of this section must be visible on all sides of the vessel.

§ 98.30–35 Warning sign at gangway.

If a vessel is moored, no person may transfer to or from a portable tank a product with a flashpoint of less than 300 °F unless the person in charge displays at each gangway or access that is open for use a warning placard containing the following in letters 2 inches in height or larger:

WARNING

No open lights

No smoking

§ 98.30–37 Firefighting requirements.

No person may lift a portable tank on or off a vessel, or transfer a product with a flashpoint of less than 300 °F to or from a portable tank unless—

(a) Water pressure is maintained on the firemain;

(b) Firehoses, fitted with a Coast Guard approved combination nozzle, are attached to each fire hydrant in the vicinity of the portable tanks;

(c) Except as provided in § 98.30–39, fire extinguishers of a dry chemical type are—

(1) Located to protect the deck area 10 feet in any horizontal direction from each portable tank and its associated cargo handling system;

(2) Coast Guard approved; and

(3) Capable of covering the deck area without being moved;

(d) In a deck area of 500 square feet or less, there are 2 or more dry chemical fire extinguishers of 300 pounds or more total capacity of extinguishing agent; and

(e) In a deck area of more than 500 square feet, there are 3 or more dry chemical fire extinguishers of 450 pounds or more total capacity of extinguishing agent.

§ 98.30–39 Alternate fire extinguishing system.

An alternative to the fire extinguishing system required in § 98.30–37(c) may be approved in accordance with procedures contained in subpart 90.15 of this chapter.

Subpart 98.31—Control of Pollution From NLS Cargoes on Oceangoing Offshore Supply Vessels

SOURCE: CGD 82–004 and CGD 86–074, 62 FR 49321, Sept. 19, 1997, unless otherwise noted.

§ 98.31–5 Applicability.

This subpart applies to each offshore supply vessel contracted for, or the keel of which was laid, before March 15, 1996, that is oceangoing as defined in 33

CFR 151.05(j) and that carries noxious liquid substances (NLSs) as defined in § 153.2 of this chapter in bulk, including carriage in portable tanks.

§ 98.31–10 Certificate of inspection and NLS certificate endorsements.

(a) The Coast Guard issues the endorsed Certificate of Inspection or NLS Certificate required by § 98.31–15 for every vessel under this subpart to carry NLSs if the vessel—

(1) Has the Cargo Record Book prescribed in § 153.490(a)(1) of this chapter; and

(2) Unless it discharges no NLS residues as defined in § 153.2 of this chapter to the sea, meets the requirements in §§ 153.470 through 153.491 of this chapter.

(b) Each vessel under this subpart that does not meet the requirements in §§ 153.470 through 153.491 of this chapter must have a statement on its Certificate of Inspection or NLS Certificate stating that the vessel is prohibited from discharging NLS residues to the sea.

§ 98.31–15 Operating requirements.

No person may operate a vessel that carries a bulk liquid cargo of NLS unless the vessel—

(a) Has on board a Certificate of Inspection and, if it is a vessel making a foreign voyage, an NLS Certificate endorsed under § 98.31–10 with the name of the NLS cargo;

(b) Discharges no NLS residues to the sea unless the vessel meets—

(1) The equipment requirements in § 98.31–10(a)(2); and

(2) The operating requirements prescribed for oceangoing ships carrying NLSs in §§ 153.901, 153.903, 153.909, and 153.1100 through 153.1132 of this chapter.

Subpart 98.33—Portable Tanks for Certain Grade E Combustible Liquids and Other Regulated Materials

SOURCE: CGD 84–043, 55 FR 37412, Sept. 11, 1990, unless otherwise noted.

§ 98.33–1 Applicability.

(a) This subpart contains regulations concerning transfer of certain low-hazard materials to and from portable tanks on vessels

(b) This subpart applies to the following portable tanks:

(1) A DOT-specification 57 portable tank (see 49 CFR 173.24, 173.32, 178.251, and 178.253);

NOTE TO PARAGRAPH (b)(1): Copies of Specifications 178.251 and 178.253 may be obtained from the Commandant (CG–ENG–5).

(2) A portable tank authorized under 49 CFR 176.340(b); and

(3) A portable tank approved by the Commandant under subpart 50.20 of this chapter.

[CGD 84–043, 55 FR 37412, Sept. 11, 1990; 56 FR 13598, Apr. 3, 1991, as amended by CGD 97–057, 62 FR 51046, Sept. 30, 1997; USCG–2012–0832, 77 FR 59780, Oct. 1, 2012]

§ 98.33–3 Cargoes authorized.

The following cargoes are authorized for transfer to and from portable tanks authorized by § 98.33–5:

(a) Grade E combustible liquids that have a closed-cup flashpoint of 300 °F or higher and that meet the definition of no DOT hazard class in 49 CFR part 173;

(b) Any environmentally hazardous substance, liquid N.O.S., Class 9, listed in table 1 of appendix A of 49 CFR 172.101, and any aqueous solution of an environmentally hazardous substance, solid, N.O.S., Class 9, listed in that table, that meets the definition of ''Hazardous substance'' in 49 CFR 171.8.

(c) Other cargoes subject to regulation under 49 CFR parts 171 through 176 when authorized in writing by the Commandant. Requests for such authorization must be submitted as prescribed in § 153.900(d)(1) of this chapter.

[CGD 84–043, 55 FR 37412, Sept. 11, 1990, as amended by CGD 97–057, 62 FR 51046, Sept. 30, 1997]

§ 98.33–5 Portable tanks authorized.

The cargoes authorized under § 98.33–3 may be transferred to and from portable tanks to which this subpart applies if the portable tanks have:

(a) A minimum design pressure of 9 psig.

(b) Pressure-relief devices that may be frangible pressure-relief devices

(rupture disks), and that do not open at less than 3 psig.

[CGD 84–043, 55 FR 37412, Sept. 11, 1990; 55 FR 47477, Nov. 14, 1990]

§ 98.33–7 Pipe and hose connections.

If a portable tank authorized under § 98.33–5 of this part has a pipe or hose connection in its bottom, the connection must have a manually operated valve and a bolted flange, threaded cap, or similar device, to protect against leakage of the tank's contents.

§ 98.33–9 Stowage.

Each portable tank authorized under § 98.33–5 of this part must be secured to the vessel by devices of sufficient strength and number to prevent the tank from moving in any direction during transport.

§ 98.33–11 Smoking.

No person may smoke when—

(a) Within 50 feet of a portable tank containing a combustible liquid; and

(b) On the deck where the tank is stowed.

§ 98.33–13 Cargo-handling systems.

A cargo authorized under § 98.33–3 of this part may not be transferred to or from a portable tank authorized under § 98.33–5 of this part unless the cargo-handling system meets the requirements of subpart F of part 64 of this chapter.

§ 98.33–15 Transfers.

A cargo authorized under § 98.33–3 of this part may not be transferred to or from a portable tank authorized under § 98.33–5 of this part unless the following requirements are met:

(a) *Cargo pumps* comply with § 98.30–11 of this part;

(b) *Ground connection* complies with § 98.30–13 of this part;

(c) *Leakage containment* complies with § 98.30–15 of this part;

(d) *Qualification of person in charge* complies with § 98.30–17 of this part;

(e) *Supervision of person in charge* complies with § 98.30–19 of this part;

(f) *Transfers, general,* comply with § 98.30–23 of this part;

(g) *Connections* comply with § 98.30–27 of this part;

(h) Pumping of incompatible products complies with § 98.30–29 of this part;

(i) Conditions for pumping comply with § 98.30–31 of this part; and

(j) *Carriage of NLSs* complies with § 98.30–14 of this part.

[CGD 84–043, 55 FR 37412, Sept. 11, 1990; 55 FR 47477, Nov. 14, 1990]

PART 105—COMMERCIAL FISHING VESSELS DISPENSING PETROLEUM PRODUCTS

Subpart 105.01—Administration

Sec.

105.01–1 Purpose.
105.01–3 Incorporation by reference.
105.01–5 Intent of Pub. L. 90–397 (approved July 11, 1968, 82 Stat. 341) and Pub. L. 93–430 (approved October 1, 1974, 88 Stat. 1180).
105.01–10 Effective date of regulations.

Subpart 105.05—Application

105.05–1 Commercial fishing vessels dispensing petroleum products.
105.05–2 Prohibitions regarding petroleum products.
105.05–3 New vessels and existing vessels for the purpose of application of regulations in this part.
105.05–5 Types of vessels.
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Subpart 105.10—Definition of Terms Used in This Part

105.10–5 Approved.
105.10–10 Combustible liquid.
105.10–15 Flammable liquid.
105.10–20 Pressure vacuum relief valve.
105.10–25 Commercial fishing vessel.

Subpart 105.15—Inspection Required

105.15–1 General.
105.15–5 Authority of marine inspectors.
105.15–10 Application for inspection.
105.15–15 Letter of compliance.
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Subpart 105.20—Specific Requirements—Cargo Tanks

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Subpart 105.90—Existing Commercial Fishing Vessels Dispensing Petroleum Products

105.90–1 Existing commercial fishing vessels dispensing petroleum products.

AUTHORITY: 33 U.S.C. 1321(j); 46 U.S.C. 3306, 3703, 4502; 49 U.S.C. App. 1804; E.O. 11735, 38 FR 21243, 3 CFR, 1971–1975 Comp., p. 793; Department of Homeland Security Delegation No. 0170.1.

SOURCE: CGFR 69–53, 34 FR 11265, July 4, 1969, unless otherwise noted.

Subpart 105.01—Administration

§ 105.01–1 Purpose.

The purpose of the regulations in this part is to provide adequate safety in the transporting and handling of inflammable or combustible cargo in bulk on board certain commercial fishing vessels and tenders.

[CGD 95–028, 62 FR 51208, Sept. 30, 1997]

§ 105.01–3 Incorporation by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the Coast Guard must publish notice of change in the FEDERAL REGISTER and the material must be available to the public. All approved material is available for inspection at the 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*. Also, it is available for inspection at the Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2100 2nd St. SW., Stop 7126, Washington, DC 20593–7126, 202–372–1405, and is available from the sources listed below.

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

(1) ASTM D 323–94, Standard Test Method for Vapor Pressure of Petroleum Products (Reid Method), incorporation by reference approved for § 105.10–15.

(2) [Reserved]

[USCG–2009–0702, 74 FR 49233, Sept. 25, 2009, as amended by USCG–2012–0832, 77 FR 59780, Oct. 1, 2012]

§ 105.01–5 Intent of Pub. L. 90–397 (approved July 11, 1968, 82 Stat. 341) and Pub. L. 93–430 (approved October 1, 1974, 88 Stat. 1180).

(a) Pub. L. 90–397 allowed cannery tenders, fishing tenders, and fishing vessels of not more than 500 gross tons used in the salmon or crab fisheries of the States of Oregon, Washington, and Alaska when engaged exclusively in the fishing industry, to have on board inflammable or combustible cargo in bulk to the extent and upon conditions as might be required by regulations promulgated by the Secretary of the department in which the Coast Guard is operating.

(b) Pub. L. 93–430 allowed vessels of not more than 5000 gross tons used in

the processing and assembling of fishery products in the fisheries of the States of Oregon, Washington, and Alaska to have on board inflammable or combustible cargo in bulk to the extent and upon conditions as might be required by regulations promulgated by the Secretary of the department in which the Coast Guard is operating.

[CGD 75–105, 41 FR 17910, Apr. 29, 1976]

§ 105.01–10 Effective date of regulations.

(a) Amendments, revisions, or additions to the regulations in this part will become effective 90 days after the date of publication in the FEDERAL REGISTER, unless the Commandant directs otherwise.

(b) The regulations in this subchapter are not retroactive in effect unless specifically made so at the time the regulations are issued. Changes in specification requirements of articles of equipment or materials used in construction shall not apply to such items which have been passed as satisfactory until replacement shall become necessary, unless a specific finding is made that such equipment or material used is unsafe or hazardous and has to be removed from vessels.

[CGFR 69–53, 34 FR 11265, July 4, 1969, as amended by CGD 75–105, 41 FR 17910, Apr. 29, 1976]

Subpart 105.05—Application

§ 105.05–1 Commercial fishing vessels dispensing petroleum products.

(a) The provisions of this part, with the exception of Subpart 105.90, shall apply to all commercial fishing vessels of not more than 500 gross tons used in the salmon or crab fisheries of Oregon, Washington, and Alaska, the construction of which is contracted for on or after December 1, 1969, and all vessels of not more than 5000 gross tons used in the processing and assembling of fishery products in the fisheries of the States of Oregon, Washington, and Alaska, the construction of which is contracted for on or after May 31, 1976 which have or propose to have permanently or temporarily installed tanks or containers for dispensing petroleum products, Grades B and lower flammable or combustible liquids, in bulk in limited quantities.

(b) The provisions of Subpart 105.90 shall apply to all commercial fishing vessels of not more than 500 gross tons used in the salmon or crab fisheries of Oregon, Washington, and Alaska, the construction of which was contracted for prior to December 1, 1969, and all vessels of not more than 5000 gross tons used in the processing and assembling of fishery products in the fisheries of the States of Oregon, Washington, and Alaska, the construction of which is contracted for prior to May 31, 1976 which have or propose to have permanently or temporarily installed tanks or containers for dispensing petroleum products, Grades B and lower flammable or combustible liquids, in bulk in limited quantities.

[CGFR 69–53, 34 FR 11265, July 4, 1969, as amended by CGD 75–105, 41 FR 17910, Apr. 29, 1976]

§ 105.05–2 Prohibitions regarding petroleum products.

(a) Commercial fishing vessels shall not transport Grade A flammable liquids in bulk. (See § 105.10–15(a) for definition of Grade A flammable liquid.)

(b) On commercial fishing vessels, temporarily installed dispensing tanks or containers shall not be installed or carried below deck or in closed compartments on or above the deck.

§ 105.05–3 New vessels and existing vessels for the purpose of application of regulations in this part.

(a) *New vessels.* In the application of the regulations in this part, the term ''new vessels'' means any commercial fishing vessel of not more than 500 gross tons used in the salmon or crab fisheries of Oregon, Washington, or Alaska, the construction of which is contracted for on or after December 1, 1969, and vessels of not more than 5000 gross tons used in the processing and assembling of fishery products in the fisheries of the States of Oregon, Washington, and Alaska, the construction of which is contracted for on or after May 31, 1976.

(b) *Existing vessels.* In the application of the regulations in this part, the term ''existing vessels'' means any commercial fishing vessel of not more

than 500 gross tons used in the salmon or crab fisheries of Oregon, Washington, or Alaska, the construction of which is contracted for prior to December 1, 1969, and vessels of not more than 5000 gross tons used in the processing and assembling of fishery products in the fisheries of the States of Oregon, Washington, and Alaska, the construction of which is contracted for prior to May 31, 1976.

[CGD 75–105, 41 FR 17910, Apr. 29, 1976]

§ 105.05–5 Types of vessels.

(a) The only types of commercial fishing vessels to which the provisions of this part apply are self-propelled manned vessels with one of the following:

(1) Permanently installed dispensing tanks or containers on open decks.

(2) Permanently installed dispensing tanks or containers located below deck or in closed compartments.

(3) Temporary dispensing tanks or containers installed on open decks.

[CGD 75–105, 41 FR 17910, Apr. 29, 1976]

§ 105.05–10 Intent of regulations.

(a) The intent of the regulations in this part is to prescribe special requirements for commercial fishing vessels which are otherwise exempt from requirements of vessel inspection, but by reason of occasionally engaging in the service of carrying on board and dispensing liquid inflammable and combustible cargo in bulk are subject to certain requirements of 46 U.S.C. section 3702.

(b) The application of the regulations governing petroleum products in bulk is limited to that portion of the vessel involved in the storage, carriage, and handling of such products. This shall include, but shall not be limited to:

(1) Permanently or temporarily installed tanks or containers;

(2) Compartments, areas or places where such tanks or containers are placed;

(3) Fuel filling systems;

(4) Fuel venting systems;

(5) Fuel piping and pumping systems.

(c) The regulations in this part also state the manning, crew requirements, and officers for those vessels when required by other specific provisions of law.

(1) Vessels carrying flammable or combustible liquids in bulk are required by 46 U.S.C. 3702, to have aboard certificated tankermen.

(2) Vessels of 200 gross tons and upward and operating on the high seas are subject to the Officers' Competency Certificate Convention, 1936, and 46 U.S.C. 8304, regarding masters, mates, chief engineers, and assistant engineers.

[CGFR 69–53, 34 FR July 4, 1969, as amended by USCG–1999–6216, 64 FR 53226, Oct. 1, 1999; USCG–2006–24371, 74 FR 11265, Mar. 16, 2009]

Subpart 105.10—Definition of Terms Used in This Part

§ 105.10–5 Approved.

(a) The term *approved* means approved by the Commandant, U.S. Coast Guard, unless otherwise stated.

§ 105.10–10 Combustible liquid.

(a) The term *combustible liquid* means any liquid having a flashpoint above 80 °F. (as determined from an open cup tester, as used for test of burning oils). In the regulations of this part, combustible liquids are referred to by grades, as follows:

(1) *Grade D.* Any combustible liquid having a flashpoint below 150 °F. and above 80 °F.

(2) *Grade E.* Any combustible liquid having a flashpoint of 150 °F. or above.

[CGFR 69–53, 34 FR 11265, July 4, 1969, as amended by CGD 73–96, 42 FR 49025, Sept. 26, 1977]

§ 105.10–15 Flammable liquid.

(a) The term *flammable liquid* means any liquid which gives off flammable vapors (as determined by flashpoint from an open cup tester, as used for test of burning oils) at or below a temperature of 80 °F. Flammable liquids are referred to by grades as follows:

(1) *Grade A.* Any flammable liquid having a Reid[1] vapor pressure of 14 pounds or more.

[1] American Society of Testing Materials Standard D 323 (incorporated by reference, see § 105.01–3) (most recent revision), Method

Continued

(2) *Grade B*. Any flammable liquid having a Reid[1] vapor pressure under 14 pounds and over 8½ pounds.

(3) *Grade C*. Any flammable liquid having a Reid[1] vapor pressure of 8½ pounds or less and a flashpoint of 80 °F. or below.

[CGFR 69–53, 34 FR 11265, July 4, 1969, as amended by CGD 73–96, 42 FR 49025, Sept. 26, 1977; USCG–2000–7790, 65 FR 58461, Sept. 29, 2000]

§ 105.10–20 Pressure vacuum relief valve.

(a) The term *pressure vacuum relief valve* means any device or assembly of a mechanical, liquid, weight, or other type used for the automatic regulation of pressure or vacuum in enclosed places.

§ 105.10–25 Commercial fishing vessel.

(a) The term *commercial fishing vessel* includes fishing vessels, cannery tenders, fishing tender vessels, and vessels processing or assembling fishery products.

[CGD 75–105, 41 FR 17910, Apr. 29, 1976]

Subpart 105.15—Inspection Required

§ 105.15–1 General.

(a) Before a commercial fishing vessel may be used to transport combustible or flammable liquids in bulk in limited quantities for the purpose of dispensing those liquids, the vessel shall be inspected by the Coast Guard to determine that the vessel is in substantial compliance with the requirements in this part.

(b) A vessel with permanently installed cargo tanks shall be inspected biennially, or more frequently if necessary, by the Coast Guard to determine that the vessel is maintained in substantial compliance with the requirements in this part.

(c) A vessel with temporarily installed cargo tanks or containers shall be inspected annually, or more frequently if necessary, by the Coast Guard.

(d) Vessels while laid up or dismantled or out of commission are exempt from any or all inspections required by law or regulations in this part.

§ 105.15–5 Authority of marine inspectors.

(a) Marine inspectors may at any time lawfully inspect any vessel subject to the requirements in this part.

§ 105.15–10 Application for inspection.

(a) Prior to the commencement of the construction of a new vessel, or a conversion of a vessel to a commercial fishing vessel, intended for transporting combustible or flammable liquids in bulk in limited quantities for the purpose of dispensing those liquids, the owners, master, or agent shall submit an application for inspection and a letter of compliance to an Officer in Charge, Marine Inspection, at any Marine Inspection Office, U.S. Coast Guard.

(b) Application for inspection and renewal of letter of compliance of a vessel shall be made in writing by the master, owner, or agent to an Officer in Charge, Marine Inspection, at any Marine Inspection Office, U.S. Coast Guard.

(c) The application for inspection and letter of compliance shall be on Form CG-3752 or in letter form and set forth the following information:

(1) Vessel's name;

(2) Nature of employment and route or areas in which to be operated;

(3) Date and place where the vessel may be inspected;

(4) Date and place where the vessel was last inspected (if inspected); and,

(5) That application for inspection has not been made to any other Officer in Charge, Marine Inspection.

§ 105.15–15 Letter of compliance.

(a) When a vessel has been inspected and found to be in substantial compliance with the requirements of this part, a ''letter of compliance'' shall be issued to the vessel by the Officer in Charge, Marine Inspection.

(b) The letter of compliance shall permit the presence on board of liquid flammable or combustible cargoes in

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of Test for Vapor Pressure of Petroleum Products (Reid Method).

bulk, and describe the conditions governing the transportation and dispensing of such cargoes.

(c) The letter of compliance shall state the maximum amount of liquid flammable or combustible cargo in bulk to be carried on board.

(d) The letter of compliance shall be limited to a period of validity which shall not exceed 2 years. For cause, the letter of compliance may be suspended or revoked as authorized by law or regulations in this chapter.

§ 105.15–20 Exhibition of letter of compliance.

(a) On every vessel subject to this part, the original letter of compliance shall be framed under glass or other suitable transparent material and posted in a conspicuous place protected from the weather.

Subpart 105.20—Specific Requirements—Cargo Tanks

§ 105.20–1 Plans and/or sketches.

(a) The owners, master, or agent of a commercial fishing vessel shall submit with his application for the initial inspection a brief description and the plans and/or sketches of the cargo tanks and piping systems for filling and dispensing cargo; dimensions and identifications of material shall be included.

(b) If cargo tanks will be located in enclosed compartments or below decks, the plans and/or sketches shall also show the proposed ventilation system.

(c) Plans and/or sketches are not required if the cargo tanks and piping systems have previously been accepted by the Coast Guard.

§ 105.20–3 Cargo tanks.

(a) *Construction and Materials.* (1) The cargo tanks must be constructed of iron, steel, copper, nickel alloy, copper alloy; or aluminum. The tanks shall be designed to withstand the maximum head to which they may be subjected, except that in no case shall the thickness of the shell or head be less than that specified in this subparagraph. Tanks of over 150 gallons capacity shall have a minimum thickness as indicated in Table 105.20–3(a)(1):

TABLE 105.20–3(a)(1)

Material	A.S.T.M. specification (latest edition)	Thickness in inches and gage number [2,3]
Nickel copper	B127, hot rolled sheet or plate.	0.107 (USSG 12).
Copper nickel [1]	B122, Alloy No. 5.	0.128 (AWG 8).
Copper [1]	B152, Type ETP	0.182 (AWG 5).
Copper silicon [1]	B97, Alloys A, B, and C.	0.144 (AWG 7).
Steel or iron		0.179 (MSG 7).
Aluminum [4]	B209, Alloy	[5] 5086 0.250 (USSG 3).

[1] Tanks fabricated with these materials shall not be utilized for the carriage of diesel oil.

[2] The gage numbers used in this table may be found in many standard engineering reference books. The letters "USSG" stand for "U.S. Standard Gage" which was established by the act of Mar. 3, 1892 (15 U.S.C. 206) for sheet and plate iron and steel. The letters "AWG" stand for "American Wire Gage" (or Brown and Sharpe Gage) for nonferrous sheet thicknesses. The letters "MSG" stand for "Manufacturers' Standard Gage" for sheet steel thicknesses.

[3] Tanks over 400 gallons shall be designed with a factor of safety of four on the ultimate strength of the tank material used with a design head of not less than 4 feet of liquid above the top of the tank.

[4] Anodic to most common metals. Avoid dissimila-metal contact with tank body unless galvanically compatible.

[5] And other alloys acceptable to the Commandant.

(2) All tank joints, connections, and fittings shall be welded or brazed. Tanks with flanged-up top edges will not be acceptable.

(3) All tanks exceeding 30 inches in any horizontal dimension shall be fitted with vertical baffle plates of the same material as the tank. Limber holes at the bottom and air holes at the top of all baffles shall be provided. Tanks constructed of material of greater thickness than minimum requirements and that are reinforced with stiffeners may be accepted without baffles.

(4) An opening fitted with a threaded pipe plug may be used on the bottom of the tank for cleaning purposes.

(b) *Supports.* (1) Tanks shall be adequately supported and braced to prevent movement. The supports and braces shall be insulated from contact with the tank surface with a nonabrasive and nonabsorbent material.

(c) *Fittings.* (1) Filling lines shall be at least 1½ inches standard pipe size and extend to within 1½-pipe diameters of the bottom of the tank.

(2) Suction lines from diesel oil tanks may be taken from the bottom provided a shutoff valve is installed at the tank. Tanks for Grades B and C liquids shall have top suctions only.

(3) Vent lines shall be at least equal in size to the filling lines.

(4) When a cargo tank contains Grades B or C liquids, the vent lines shall be terminated with an approved pressure vacuum relief valve not less than 3 feet above the weather deck. When a cargo tank contains Grades D or E liquids the vent line may be terminated with a gooseneck fitted with flame screen at a reasonable height above the weather deck.

(d) *Hydrostatic tests.* All tanks vented to the atmosphere shall be hydrostatically tested to a pressure of 5 pounds per square inch or 1½ times the maximum head to which they may be subjected in service. A standpipe of 11½ feet in length attached to the tanks may be filled with water to accomplish the 5 pounds per square inch test.

[CGFR 69–53, 34 FR 11265, July 4, 1969, as amended by CGD 72–206R, 38 FR 17229, June 29, 1973; CGD 76–061, 41 FR 23401, June 10, 1976]

§ 105.20–5 Piping systems.

(a) Piping shall be copper, nickel copper, or copper nickel having a minimum wall thickness of 0.035″; except that seamless steel pipe or tubing which provides equivalent safety may be used for diesel cargo systems.

(b) Valves shall be of a suitable nonferrous metallic Union Bonnet type with ground seats except that steel or nodular iron may be used in cargo systems utilizing steel pipe or tubing.

(c) Aluminium or aluminum alloy valves and fittings are prohibited for use in cargo lines.

§ 105.20–10 Pumps.

(a) Pumps for cargo dispensing shall be of a type satisfactory for the purpose.

(b) A relief valve shall be provided on the discharge side of pump if the pressure under shutoff conditions exceeds 60 pounds. When a relief valve is installed, it shall discharge back to the suction of the pump.

(c) Where electric motors are installed with dispensing pumps they shall be explosion proof and shall be labeled as explosion proof by Underwriter's Laboratories, Inc., or other recognized laboratory, as suitable for Class I, Group D atmospheres.

§ 105.20–15 Grounding.

(a) All tanks and associated lines shall be electrically grounded to the vessel's common ground.

(b) A grounded type hose and nozzle shall be used for dispensing fuels.

Subpart 105.25—Additional Requirements—When Cargo Tanks Are Installed Below Decks

§ 105.25–1 General requirements.

(a) Cargo tank and piping systems shall be as described in Subpart 105.20.

§ 105.25–5 Compartments or areas containing cargo tanks or pumping systems.

(a) Compartments or areas containing tanks or pumping systems shall be closed off from the remainder of the vessel by gastight bulkheads. Such gastight bulkheads may be pierced for a drive shaft and pump engine control rods if such openings are fitted with stuffing boxes or other acceptable gland arrangements.

§ 105.25–7 Ventilation systems for cargo tank or pumping system compartment.

(a) Each compartment shall be provided with a mechanical exhaust system capable of ventilating such compartment with a complete change of air once in every 3 minutes. The intake duct or ducts shall be of sufficient size to permit the required air change. The exhaust duct or ducts shall be located so as to remove vapors from the lower portion of the space or bilges.

(b) The ventilation outlets shall terminate more than 10 feet from any opening to the interior of the vessel which normally contains sources of vapor ignition. The ventilation fan shall be explosion proof and unable to act as a source of ignition.

§ 105.25–10 Cargo pumping installation.

(a) Cargo pumps shall not be installed in the cargo tank compartment unless the drive system is outside the compartment.

(b) Suction pipelines from cargo tanks shall be run directly to the pump, but not through working or crew spaces of vessel.

§ 105.25–15 Spacings around tanks.

(a) Tanks shall be located so as to provide at least 15″ space around tank, including top and bottom to permit external examination.

§ 105.25–20 Shutoff valves required.

(a) Shutoff valves shall be provided in the suction lines as close to the tanks as possible. The valves shall be installed so as to shut off against the flow.

(b) Remote control of this shutoff valve shall be provided where deemed necessary by the marine inspector.

Subpart 105.30—Electrical Requirements

§ 105.30–1 Electrical fittings and fixtures.

(a) In compartments or areas containing tanks or pumps handling other than Grade E petroleum products, no electrical fittings, fixtures, nor electrical equipment shall be installed or used unless approved for a Class I, Group D hazardous location and so labeled by Underwriter's Laboratories, Inc., or other recognized laboratories. (See subpart 110.10 of subchapter J (Electrical Engineering) of this chapter for listings of standards.)

(b) All electrical equipment, fixtures and fittings within 10 feet of a vent outlet or a dispensing outlet shall be explosion proof and shall be labeled as explosion proof by Underwriter's Laboratories, Inc., or other recognized laboratory, as suitable for Class I, Group D atmospheres.

§ 105.30–5 Grounding of electrical equipment.

(a) All electrical equipment shall be grounded to the vessel's common ground.

Subpart 105.35—Fire Extinguishing Equipment

§ 105.35–1 General.

(a) In addition to the requirements in § 28.160 of subchapter C of this chapter, at least two B-II dry chemical or foam portable fire extinguishers bearing the marine type label of the Underwriter's Laboratories, Inc., shall be located at or near each dispensing area.

(b) This equipment shall be inspected prior to issuing a letter of compliance.

[CGFR 69–53, 34 FR 11265, July 4, 1969, as amended by CGD 95–028, 62 FR 51208, Sept. 30, 1997]

§ 105.35–5 Fire pumps.

(a) All vessels shall be provided with a hand operated portable fire pump having a capacity of at least 5 gallons per minute. This fire pump shall be equipped with suction and discharge hose suitable for use in firefighting. This pump may also serve as a bilge pump.

(b) A power-driven fire pump shall be installed on each vessel of more than 65 feet in length overall.

(1) The power fire pump shall be self-priming and of such size as to discharge an effective stream from a hose connected to the highest outlet.

(2) The minimum capacity of the power fire pump shall be 50 gallons per minute at a pressure of not less than 60 pounds per square inch at the pump outlet. The pump outlet shall be fitted with a pressure gage.

(3) The power fire pump may be driven off a propulsion engine or other source of power and shall be connected to the fire main. This pump may also be connected to the bilge system so that it can serve as either a fire pump or a bilge pump.

§ 105.35–10 Fire main system.

(a) All vessels required to be provided with a power-driven fire pump shall also be provided with a fire main system including fire main, hydrants, hose, and nozzles.

(b) Fire hydrants, when required, shall be of sufficient number and so located that any part of the vessel may be reached with an effective stream of water from a single length of hose.

(c) All piping, valves, and fittings shall be in accordance with good marine practice and suitable for the purpose intended.

§ 105.35–15 Fire hose.

(a) One length of fire hose shall be provided for each fire hydrant required.

(b) Fire hose may be commercial fire hose or equivalent of not over 1½-inch diameter or garden hose of not less than ⅝-inch nominal inside diameter. Hose shall be in one piece not less than 25 feet and not more than 50 feet in length.

(c) If 1½ inch diameter fire hose is used after January 1, 1980, each length of hose must:

(1) Be lined commercial fire hose that conforms to Underwriters' Laboratories, Inc. Standard 19 or Federal Specification ZZ-H-451E. A hose that bears the label of Underwriters' Laboratories, Inc. as lined fire hose is accepted as conforming to this requirement; and

(2) Have a combination nozzle approved by the Commandant in accordance with § 162.027–6 of this chapter.

(d) If garden hose is used, it shall be of a good commercial grade constructed of an inner rubber tube, plies of braided cotton reinforcement and an outer rubber cover or of equivalent material, and shall be fitted with a commercial garden hose nozzle of good grade bronze or equivalent metal.

(e) All fittings on fire hose shall be of brass, copper, or other suitable corrosion resistant metal.

(f) A length of fire hose shall be attached to each fire hydrant at all times.

[CGFR 69–53, 34 FR 11265, July 4, 1969, as amended by CGD 74–60, 41 FR 43151, Sept. 30, 1976]

Subpart 105.45—Special Operating Requirements

§ 105.45–1 Loading or dispensing petroleum products.

(a) A commercial fishing vessel must have aboard a letter of compliance valid under subpart 105.15 of this part and must be in compliance with the requirements in the letter while dispensing petroleum products. This letter of compliance issued to a vessel will state—

(1) The number of crewmembers required to hold merchant mariner credentials or merchant mariner's documents endorsed as tankermen under part 13 of this chapter; and

(2) For each vessel of 200 gross tons or over, the complement of officers under Title 46 U.S.C. 8304.

(b) Each person in charge of a transfer of liquid cargo in bulk to or from a cargo tank shall hold—

(1) A valid merchant mariner credential or merchant mariner's document endorsed as ''Tankerman-PIC'' or restricted ''Tankerman-PIC'' authorizing transfer of the classification of cargo involved; or

(2) A valid license or merchant mariner credential authorizing service as master, mate, pilot, or engineer.

[CGD 79–116, 60 FR 17157, Apr. 4, 1995, as amended by USCG–2006–24371, 74 FR 11265, Mar. 16, 2009]

§ 105.45–5 Galley fires.

(a) Galley fires are normally permitted during cargo transfer operations. However, prior to transferring Grade B or C cargoes, the tankerman shall make an inspection to determine whether in his judgment galley fires may be maintained with reasonable safety during the transfer operations.

§ 105.45–10 Smoking.

(a) Smoking is prohibited during and in the vicinity of the transfer operations. At other times the senior officer on duty shall designate when and where the crew may smoke.

§ 105.45–15 Warning signals and signs.

(a) During transfer of cargo while fast to a dock, a red signal (flag by day and electric lantern at night) shall be so placed that it will be visible on all sides. At all other times of transfer a red flag only shall be displayed.

§ 105.45–20 Warning sign at gangway.

(a) Warning placards shall be kept at hand for display while a vessel is fast to a dock during transfer of cargo, to warn persons approaching the gangway. The placard shall state in letters not less than 2 inches high substantially as follows:

WARNING

No open lights.
No smoking.
No visitors.

Subpart 105.90—Existing Commercial Fishing Vessels Dispensing Petroleum Products

§ 105.90–1 Existing commercial fishing vessels dispensing petroleum products.

(a) The prohibition in § 105.05–2 shall apply to all commercial fishing vessels.

(b) Existing vessels must meet the following requirements:

(1) Permanently or temporarily installed tanks or containers used for dispensing in limited quantities petroleum products in bulk, Grades B or lower flammable or combustible liquids, shall meet the applicable requirements in Subparts 105.20 (Tanks and piping systems), 105.25 (Cargo tanks below decks), 105.30 (Electrical). However, these tanks or containers and their associated piping systems in use prior to December 1, 1969, if in satisfactory condition in the opinion of the Officer in Charge, Marine Inspection, may be continued in use as long as they are maintained in such satisfactory condition.

(2) Minor repairs or alterations may be made in permanently or temporarily installed tanks or containers for petroleum products in bulk, which shall be to the satisfaction of the Officer in Charge, Marine Inspection. Major repairs or replacement of such tanks or containers shall be in accordance with requirements governing new installations as set forth in this part.

(3) All commercial fishing vessels must comply with the applicable requirements in subparts 105.15 (Inspection Required), 105.35 (Fire Extinguishing Equipment), and 105.45 (Special Operating Requirements).

[CGFR 69–53, 34 FR 11265, July 4, 1969, as amended by CGD 75–105, 41 FR 17910, Apr. 29, 1976; CGD 79–116, 62 FR 25136, May 8, 1997]