and to give an alarm in case of accident or disaster.

§ 131.990 Maneuvering characteristics.

This section applies to OSVs of at least 6,000 GT ITC (500 GRT if GT ITC is not assigned).

(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 more.

(4) Clean hull.

(c) At the bottom of the fact sheet, the following statement must appear:

(1) 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:

(i) Calm weather—wind 10 knots or less, calm sea.

(ii) No current.

(iii) Deep water conditions—water depth twice the vessel's draft or more.

(iv) Clean hull.

(v) Intermediate drafts or unusual trim.

(d) The information on the fact sheet must be—

(1) Verified 6 months after the vessel is placed into service; or

(2) Modified 6 months after the vessel is placed into service and verified within 3 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.

(f) The accuracy of the information on the fact sheet must be at a level comparable with that attainable by ordinary shipboard navigation equipment.

(g) The requirements for information for fact sheets for specialized craft, such as semi-submersibles and other vessels of unusual design, will be specified on a case-by-case basis.

[USCG–2012–0208, 79 FR 48937, Aug. 18, 2014]

PART 132—FIRE-PROTECTION EQUIPMENT

Subpart A—General Provisions; Fire Main

Sec.

Subpart B—Portable and Semiportable Fire Extinguishers

Subpart C—Miscellaneous

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

EFFECTIVE DATE NOTE: By 89 FR 76701, Sept. 18, 2024, the authority citation for part 132 was revised, effective Oct. 18, 2024. For the convenience of the user, the revised text is set forth as follows:

AUTHORITY: 46 U.S.C. 3306, 3307; sec. 617, Pub. L. 111–281, 124 Stat. 2905; DHS Delegation 00170.1, Revision No. 01.4.

SOURCE: CGD 82–004 and CGD 86–074, 62 FR 49348, Sept. 19, 1997, unless otherwise noted.

Subpart A—General Provisions; Fire Main

§ 132.100 General; preemptive effect.

(a) Except as provided by paragraphs (b) and (c) of this section, each vessel must be equipped with a fire main that complies with this subpart.

(b) Each vessel of less than 100 gross tons and not more than 19.8 meters (65 feet) in length may have, instead of a fire main that complies with this subpart, a hand-operated pump and a hose capable of providing an effective stream of water to each part of the vessel.

(c) A garden hose of nominal inside diameter of at least 16 millimeters (5/8-inch) complies with paragraph (b) of this section if the hose is—

(1) Of good commercial grade and is constructed of an inner rubber tube, plies of braided-fabric reinforcement, and an outer cover made of rubber or equivalent fire-resistant material; and

(2) Fitted with a commercial garden-hose nozzle of high-grade bronze or equivalent metal capable of providing a solid stream and a spray pattern.

(d) Each OSV of at least 6,000 GT ITC (500 GRT if GT ITC is not assigned) must, in addition to complying with the requirements necessary to satisfy §125.105(a) and (b) of this subchapter—

(1) Have two fire pumps, each capable of delivering water simultaneously from the two highest outlets at a pitot tube pressure of approximately 75 p.s.i.; and

(2) Have fire hoses and nozzles that comply with §34.10–10 of this chapter.

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

[CGD 82–004 and CGD 86–074, 62 FR 49348, Sept. 19, 1997, as amended by USCG–2006–24797, 77 FR 33884, June 7, 2012; USCG–2012–0208, 79 FR 48937, Aug. 18, 2014]

§ 132.110 Piping.

(a) Except as provided for liftboats by §134.180 of this subchapter, each fitting, flange, valve, and run of piping must meet the applicable requirements of part 128 of this subchapter. Piping must be—

(1) Hot-dip galvanized;

(2) At least extra-heavy schedule; or

(3) Of a suitable corrosion-resistant material.

(b) Each distribution cut-off valve must be marked in compliance with §131.820 of this subchapter.

§ 132.120 Fire pumps.

(a) Except as provided by §132.100(b) of this subpart, each vessel must be equipped with one self-priming power-driven fire pump capable of delivering a single stream of water from the highest hydrant, through the hose and nozzle at a Pitot-tube pressure of at least 345 kPa (50 psi [pounds per square inch]).

(b) Each fire pump must be fitted on the discharge side with a pressure gauge.

(c) Each fire pump must be fitted on the discharge side with a relief valve set to relieve at either 172 kPa (25 psi) in excess of the pressure necessary to maintain the requirements of paragraph (a) of this section or 862 kPa (125 psi), whichever is greater. The relief valve is optional if the pump is not capable of developing pressure exceeding the greater amount.

(d) If two propulsion engines are installed, the pump required by paragraph (a) of this section may be driven by one of the engines. If only one propulsion engine is installed, the pump

must be driven by a source of power independent of the engine.

(e) If two fire pumps are installed, and if one pump remains available for service on the fire main at any time, the other pump may be used for other purposes.

(f) Each fire pump must be capable of providing the quantity of water required to comply with paragraph (a) of this section while meeting any other demands placed on it, as by a branch line connected to the fire main for washing the anchor or the deck.

(g) No branch line may be directly connected to the fire main except for fighting fires or for washing the anchor or the deck. Each discharge line for any other purpose must be clearly marked and must lead from a discharge manifold near the fire pump.

(h) When a fire monitor is connected to the fire main system, it must lead from a discharge manifold near the fire pump.

(i) The total cross-sectional area of piping leading from a fire pump may not be less than that of the pump-discharge outlet.

(j) In no case may a pump connected to a line for flammable or combustible liquid be used as a fire pump.

(k) A fire pump must be capable of both manual operation at the pump and, if a remote operating station is fitted, operation at that station.

§ 132.130 Fire stations.

(a) Except as provided by paragraph (b) of this section, ire stations must be so numerous and so placed that each part of the vessel accessible to persons aboard while the vessel is being operated, and each cargo hold, are reachable by at least two effective spray patterns of water. At least two such patterns must come from separate hydrants. At least one must come from a single length of hose.

(b) Each part of the main machinery space, including the shaft alley if it contains space assigned for the stowage of combustibles, must be reachable by at least two streams of water. Each stream must come from a single length of hose, from a separate fire station.

(c) Each fire station must be numbered in compliance with §131.830 of this subchapter.

(d) Each part of the fire main on a weather deck must be either protected against freezing or fitted with cut-out valves and drain valves so that exposed parts of the piping may be shut off and drained in freezing weather. Except when closed against freezing, the cut-out valves must be sealed open.

(e) Each outlet at a fire hydrant must be at least 38 millimeters (1½ inch) in diameter and, to minimize the possibility of kinking, must be fitted so that no hose leads upward from it.

(f) Each fire station must be equipped with a spanner suitable for use on the hose there.

(g) Each fire station must have at least one length of fire hose. Each hose on the station must have a fire nozzle approved under subpart 162.027 of this chapter that can discharge both solid stream and water spray.

(h) Each pipe and fire hydrant must be placed so that the fire hose may be easily coupled to them. Each station must be readily accessible. No deck cargo may interfere with access to the stations; each pipe must run as far away from this cargo as practicable, to avoid risk of damage by the cargo.

(i) Each fire hydrant or ''Y'' branch must be equipped with a valve such that the fire hose may be removed while there is pressure on the fire main.

(j) Each fire hydrant connection must be of brass, bronze, or equivalent metal. The threads of fire hose couplings must be of brass or other suitable corrosion-resistant material and comply with NFPA 1963.

(k) Each fire hydrant must have a fire hose 15.2 meters (50 feet) in length, with a minimum diameter of 38 millimeters (1½ inches), connected to an outlet, for use at any time.

(l) No fire hose, when part of the fire equipment, may be used for any purpose except fire-fighting, fire drills, and testing.

(m) A suitable hose rack or other device must be provided for each fire hose. Each rack on a weather deck must be placed so as to protect its hose from heavy weather.

(n) Each section of fire hose must be lined commercial fire hose, or lined fire hose that meets Standard 19 of Underwriters Laboratories, Inc. (UL). Hose

that bears the UL label as lined fire hose complies with this section.

Subpart B—Portable and Semiportable Fire Extinguishers

§ 132.200 General.

(a) Except as provided by paragraph (b) of this section, each OSV must be equipped with portable and semiportable fire extinguishers that comply with this subpart.

(b) Each OSV of at least 6,000 GT ITC (500 GRT if GT ITC is not assigned) must, in addition to complying with the requirements necessary to satisfy §125.105(a) and (b) of this subchapter, be equipped with the number and type of portable and semiportable fire extinguishers listed in §34.50 of this chapter.

[USCG–2012–0208, 79 FR 48938, Aug. 18, 2014]

§ 132.220 Installation.

(a) Each portable fire extinguisher approved under subpart 162.028 of this chapter and each semi-portable fire extinguisher approved under subpart 162.039 of this chapter must be installed in compliance with Table 132.220 of this section. The placement of each extinguisher must satisfy the cognizant OCMI, who may also deem added extinguishers necessary for the proper protection of the vessel.

TABLE 132.220—REQUIRED PORTABLE AND SEMI-PORTABLE FIRE EXTINGUISHERS

Space	Minimum required rating	Number and placement
Safety areas: Communicating passageways	2–A	1 in each main passageway, not more than 45.7 m (150 ft) apart (permissible in stairways).
Pilothouse	20–B:C	2 in the vicinity of the exit.
Service spaces: Galleys	40–B:C	1 for each 230 sq m (2,500 sq ft) or fraction thereof, suitable for hazards involved.
Paint lockers	40–B	1 outside space, in the vicinity of the exit.
Accessible baggage and storerooms	2–A	1 for each 230 sq m (2,500 sq ft) or fraction thereof, located in the vicinity of the exits, either inside or outside spaces.
Workshops and similar spaces	2–A	1 outside space in the vicinity of the exit.
Machinery spaces: Internal-combustion propulsion-machinery.	40–B:C	1 for each 1,000 brake horsepower, but not fewer than 2 and more than 6.
	120–B	1 required.[1] [2]
Electric propulsion motors or generators of open type.	40–B:C	1 for each propulsion motor or generator unit.
Auxiliary spaces: Internal combustion	40–B	1 outside space in the vicinity of the exit.[2]
Electric motors and emergency generators	40–B:C	1 outside space in the vicinity of the exit.[2]
Spares	2–A	10 percent of the required number rounded up.
	40–B:C	10 percent of the required number rounded up.

[1] Not required where a fixed gaseous fire extinguishing system is installed.
[2] Not required on vessels of less than 300 GT.

(b) Table 132.220 of this section indicates the minimum required number and type of extinguishers for each space listed. Extinguishers with larger numerical ratings or multiple letter designations may be used if the extinguishers meet the requirements of the table.

(c) Each semi-portable fire extinguisher must be mounted or otherwise placed in the open so as to be readily visible.

(d) Except as provided by paragraph (d) of this section, each portable fire extinguisher must be mounted or otherwise placed in the open or behind glass so as to be readily visible.

(e) A portable fire extinguisher may be mounted or otherwise placed in an enclosure together with the firehose, if the enclosure is marked in compliance with §131.830 of this subchapter.

(f) Each portable fire extinguisher and its station must be numbered to comply with §131.835 of this subchapter.

(g) No portable or semi-portable fire extinguisher with a nameplate indicating that it needs protection from freezing may be mounted or otherwise placed where freezing temperatures are foreseeable.

[CGD 82–004 and CGD 86–074, 62 FR 49348, Sept. 19, 1997, as amended by USCG–2012–0196, 81 FR 48271, July 22, 2016]

§ 132.230 [Reserved]

§ 132.240 Stowage of semi-portable fire extinguishers.

The frame or support of each semi-portable fire extinguisher must be secured to prevent the extinguisher from shifting in heavy weather.

[USCG–2012–0196, 81 FR 48272, July 22, 2016]

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

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

(a) Previously installed extinguishers with extinguishing capacities smaller than are required in Table 132.220 of this subpart need not be replaced and may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection.

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

[USCG–2012–0196, 81 FR 48272, July 22, 2016]

Subpart C—Miscellaneous

§ 132.310 Fixed fire-extinguishing systems for paint lockers.

(a) Except as provided by paragraph (b) of this section, a fixed gaseous fire-extinguishing system or another approved fixed fire-extinguishing system must be installed in each paint locker.

(b) No fixed fire-extinguishing system need be installed in a paint locker that is—

(1) Less than 1.7 cubic meters (60 cubic feet) in volume;

(2) Accessible only from the weather deck; and

(3) Not adjacent to a tank for flammable or combustible liquid.

(c) Each fixed fire-extinguishing system installed must comply with part 95 of this chapter or be approved by the Commanding Officer, Marine Safety Center.

§ 132.320 Helicopter-landing decks.

Each vessel with a helicopter-landing deck must meet the fire fighting requirements of part 108 of this chapter.

§ 132.330 Fire monitors.

(a) Each fire monitor of the fire main system must be fitted with a shut-off valve at the monitor and at the connection to the fire main discharge manifold required by §132.120(h) of this part.

(b) Fire monitor piping must comply with §132.110 of this part.

(c) Each fire monitor must be protected against over-pressure.

§ 132.340 Equipment installed although not required.

(a) A vessel may install fire extinguishing equipment beyond that required by this subchapter, unless the excess equipment in any way endangers the vessel or the persons aboard. This equipment must be listed and labeled by an independent, nationally recognized testing laboratory (NRTL) as that term is defined in 46 CFR 161.002–2, and must be designed, installed, tested, and maintained in accordance with an appropriate industry standard and the manufacturer's specific guidance.

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

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

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

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

[USCG–2012–0196, 81 FR 48272, July 22, 2016]

§ 132.350 Tests and inspections of fire-extinguishing equipment.

(a) Each master of a vessel shall ensure that the tests and inspections, of fire-extinguishing equipment, described by paragraph (b) of this section are performed—

(1) Every 12 months; or

(2) Not later than the next inspection for certification and periodic inspection, unless the total time from the

date of the last tests and inspections exceeds 15 months.

(b) The master shall provide satisfactory evidence of the servicing of fire-extinguishing equipment, required by paragraph (c) of this section, to the marine inspector. If any of the equipment or records have not been properly maintained, a qualified servicing facility may be required to perform the required inspections, maintenance, and hydrostatic tests.

(c) The following tests and inspections of fire-extinguishing equipment must be performed by the owner, operator, or master, or by a qualified servicing facility, to verify compliance with paragraph (a) of this section:

(1) Each portable fire extinguisher must be inspected, maintained, and hydrostatically tested as required by Chapter 4 of NFPA 10 with the frequency specified by NFPA 10. Carbon-dioxide and halon portable fire extinguishers must be refilled when the weight loss of net content exceeds that specified for fixed systems by Table 132.350. Further, each must be examined for excessive corrosion and for general condition. A tag issued by a qualified servicing facility, and attached to each extinguisher, will be acceptable evidence that the necessary maintenance has been conducted.

(2) Each semiportable fire extinguisher and each fixed fire-extinguishing system must be—

(i) Inspected and tested as required by Table 132.350 of this subpart;

(ii) Inspected, tested, and marked as required by §§147.60 and 147.65 of this chapter;

(iii) Inspected to ensure that piping, controls, and valves are in good general condition with no excessive corrosion; and

(iv) Inspected and tested to determine that alarms and ventilation shutdowns for each fire-extinguishing system operate properly.

TABLE 132.350—TESTS OF SEMIPORTABLE AND FIXED FIRE-EXTINGUISHING SYSTEMS

Type of 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 that Halon 1301 system approvals have expired, but that existing systems may be retained if they are in good and serviceable condition to the satisfaction of the Coast Guard inspector.
Dry chemical (cartridge-operated)	Examine pressure cartridge and replace if end is punctured or if cartridge has leaked or is otherwise unsuitable. Inspect hose and nozzle to see that they are clear. Insert charged cartridge. Ensure that dry chemical is free-flowing (not caked) and that extinguisher contains full charge.
Dry chemical (stored pressure)	See that pressure gauge is in operating range. If not, or if seal is broken, weigh or otherwise determine that extinguisher is fully charged with dry chemical. Recharge if pressure is low or if dry chemical is needed.
Foam (stored pressure)	See that any pressure gauge is in the operating range. If it is not, or if seal is broken, weigh or otherwise determine that extinguisher is fully charged with foam. Recharge if pressure is low or if foam is needed. Replace premixed agent every 3 years.
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. Inspect hoses for damage or decay. 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) The fire-main system must be operated, and the pressure checked at the remotest and highest outlets. Each fire hose must be subjected to a test pressure, equivalent either to the maximal pressure to which it may be subjected in service or to 690 kPa (100 psi), whichever is greater.

(4) All systems for detecting smoke and fire, including sensors and alarms, must be inspected and tested.

[CGD 82–004 and CGD 86–074, 62 FR 49348, Sept. 19, 1997, as amended by USCG–1999–4976, 65 FR 6507, Feb. 9, 2000; USCG–2006–24797, 77 FR 33884, June 7, 2012]

§ 132.360 Fire axes.

(a) Each vessel of less than 100 gross tons must carry one fire axe.

(b) Each vessel of 100 or more gross tons must carry two fire axes.

(c) Each fire axe must be so placed as to be readily available in an emergency.

(d) Each fire axe must be so placed in the open or behind glass that it is readily visible, except that, if the enclosure is marked in compliance with §131.830 of this subchapter, the axe may be placed in an enclosure together with the fire hose.

§ 132.365 Emergency outfits.

(a) Two emergency outfits, stored for use in widely separated, accessible locations, are required on all OSVs of at least 6,000 GT ITC (500 GRT if GT ITC is not assigned) that have cargo tanks that exceed 15 feet in depth, measured from the tank top to the lowest point at which cargo is carried.

(b) Each emergency outfit must have on board the following equipment:

(1) One pressure-demand, open-circuit, self-contained breathing apparatus, approved by the Mine Safety and Health Administration and by the National Institute for Occupational Safety and Health and having at a minimum a 30-minute air supply, a full facepiece, and a spare charge.

(2) One lifeline with a belt or a suitable harness.

(3) One Type II or Type III flashlight constructed and marked in accordance with ASTM F1014—02 (incorporated by reference, see §125.180).

(4) One fire axe.

(5) One pair of boots and gloves of rubber or other electrically nonconducting material.

(6) One rigid helmet that provides effective protection against impact.

(7) One set of protective clothing of material that will protect the skin from the heat of fire and burns from scalding steam. The outer surface must be water resistant.

(c) Lifelines must be of steel or bronze wire rope. Steel wire rope must be either inherently corrosion resistant or made so by galvanizing or tinning. Each end must be fitted with a hook with keeper having a throat opening that can be readily slipped over a $\frac{5}{8}$-inch bolt. The total length of the lifeline must 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 lifeline may be less than 50 feet in length. The assembled lifeline must have a minimum breaking strength of 1,500 pounds.

[USCG–2012–0208, 79 FR 48938, Aug. 18, 2014]

EFFECTIVE DATE NOTE: By 89 FR 76701, Oct. 18, 2024, §132.365 was amended by by removing the text ''the Mine Safety and Health Administration and by'' in paragraph (b)(1), effective Oct. 18, 2024.

§ 132.370 Added requirements for fixed independent and portable tanks.

(a) When carrying fixed independent tanks on deck or portable tanks in compliance with §125.110 of this subchapter, each vessel must also comply with §§98.30–37 and 98.30–39 of this chapter.

(b) When carrying portable tanks in compliance with §125.120 of this subchapter, each vessel must also comply with 49 CFR 176.315.

§ 132.390 Added requirements for carriage of flammable or combustible cargo.

(a) This section applies to OSVs of at least 6,000 GT ITC (500 GRT if GT ITC is not assigned).

(b) Cargo tanks containing flammable or combustible liquids must not be located beneath the accommodations or machinery space. Separation by cofferdams is not acceptable for meeting this requirement.

(c) Except for OSVs complying with paragraph (d)(1) of this section, each OSV must carry at least two approved semiportable dry chemical fire extinguishers for the protection of all weather deck areas within 10 feet (3 m) of any tank openings, pumps, flanges, valves, vents, or loading manifolds. Each extinguisher must have—

(1) A minimum capacity of 135 kg. If the protected area exceeds 90 m^2, additional extinguishers must be provided to supply a total combined capacity of dry chemical in kilograms equal to the total combined protected area in square meters multiplied by 3;

(2) A minimum flow rate of 3 kg/min from each discharge hose;

(3) A sufficient number of discharge hoses of adequate length to protect the areas required above without moving any of the extinguishers; and

(4) The frame or support for each semi-portable dry chemical fire extinguisher welded or otherwise permanently attached to the vessel's structure.

(d) Each OSV with fixed cargo tanks that have an aggregate capacity of 3,000 cubic meters or more intended for the carriage of flammable or combustible liquids with a closed-cup flashpoint of 60 °C or below must have:

(1) An approved fixed-deck foam system arranged as follows:

(i) If the flammable or combustible liquid tanks extend vertically to the weather deck, the foam system must comply with §§ 34.20–10 and 34.20–15 of this chapter, and protect the entire weather deck cargo area, including any tank openings, pumps, flanges, valves, vents, or loading manifolds. If petroleum products are carried, the minimum foam system discharge rate in liters per minute must be determined by multiplying the total cargo deck area by 6 lpm/m^2. If polar solvent cargoes are carried, the minimum foam system discharge rate in liters per minute must be determined by multiplying the total cargo deck area by 10 lpm/m^2, unless the approved foam system design manual specifies a different rate for the cargoes carried.

(ii) If the flammable or combustible liquid tanks do not extend vertically to the weather deck, the foam system must be capable of protecting all weather deck areas within 10 feet (3 m) of any tank openings, pumps, flanges, valves, vents, or loading manifolds. The foam system must consist of at least one hoseline, and either fixed-foam monitors or fixed-foam nozzles that provide foam coverage of all required areas. The minimum foam system discharge rate must be calculated in accordance with paragraph (d)(1)(i) of this section, using the combined horizontal area of all parts of the deck requiring protection, instead of the total deck area.

(iii) All foam liquid concentrate must be compatible with all flammable or combustible liquids carried.

(iv) Sufficient foam liquid concentrate must be carried to allow operation of the system at its maximum discharge rate for at least 20 minutes.

(2) A fixed-gas fire-suppression system complying with §34.05–5(a)(4) of this chapter, or other approved fire-extinguishing system determined acceptable by the Commandant, for the protection of any accessible below-deck cargo pump rooms or other spaces that have tank openings, pumps, flanges, valves, or loading manifolds associated with tanks carrying flammable or combustible liquids with a closed cup flashpoint of 60 °C or below.

[USCG–2012–0208, 79 FR 48938, Aug. 18, 2014]

PART 133—LIFESAVING SYSTEMS

Subpart A—General

Sec.

Subpart B—Requirements for All OSVs