

§ 131.975

§ 131.975 Searchlights.

No person may 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, OSV or other, under way.

§ 131.980 Lookouts and watches.

Nothing in this part exonerates any master or officer of the watch from the consequences of any neglect to keep a proper lookout or to maintain a proper fire watch, or of any neglect of any precaution that may be required by the ordinary practice of seamen, by general prudence, or by the special circumstances of the case. Each master shall set added watches when necessary to guard against fire or other danger and to give an alarm in case of accident or disaster.

PART 132—FIRE-PROTECTION EQUIPMENT

Subpart A—Fire Main

Sec.

- 132.100 General.
- 132.110 Piping.
- 132.120 Fire pumps.
- 132.130 Fire stations.

Subpart B—Portable and Semiportable Fire Extinguishers

- 132.210 Classification.
- 132.220 Installation.
- 132.230 Spare charges.
- 132.240 Stowage of semiportable fire extinguishers.

Subpart C—Miscellaneous

- 132.310 Fixed fire-extinguishing systems for paint lockers.
- 132.320 Helicopter-landing decks.
- 132.330 Fire monitors.
- 132.340 Equipment installed although not required.
- 132.350 Tests and inspections of fire-extinguishing equipment.
- 132.360 Fire axes.
- 132.370 Added requirements for fixed independent and portable tanks.

AUTHORITY: 46 U.S.C. 3306, 3307; Department of Homeland Security Delegation No. 0170.1.

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

46 CFR Ch. I (10-1-07 Edition)

Subpart A—Fire Main

§ 132.100 General.

(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.

§ 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, fire 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 pat-

terns 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.

§ 132.210

46 CFR Ch. I (10-1-07 Edition)

(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

§ 132.210 Classification.

(a) Each portable fire extinguisher and semiportable fire extinguisher is classified by a symbol combining letter and number. The letter indicates the type of fire that the unit should extinguish; the number indicates the relative size of the unit.

(b) The types of fire are the following:

(1) "A"—fires in ordinary combustible materials, where the quenching and cooling effect of quantities of either water or solutions containing large percentages of water is essential.

(2) "B"—fires in flammable liquids, greases, and the like, where the blanketing effect of a smothering-agent is essential.

(3) "C"—fires in electrical equipment, where the use of nonconducting extinguishing-agent is essential.

(c) The sizes of units run from "I" for the smallest to "V" for the largest. Sizes I and II are portable fire extinguishers; sizes III, IV, and V, which exceed 25 kilograms (55 pounds) in gross weight, are semiportable fire extinguishers and must be fitted with suitable hose and nozzle or other practicable means to cover any part of the space involved. Typical portable and semiportable fire extinguishers are set forth by Table 132.210 of this section.

TABLE 132.210

Classification		Halon 1211, 1301, and 1211-1301 mixtures kgs. (lbs.)	Foam, liters (gallons)	Carbon dioxide, kgs. (lbs.)	Dry chemicals, kgs. (lbs.)
Type	Size				
A	II	.....	9.46 (2½)	.....	.....
B	I	1.13 (2½)	.....	1.8 (4)	0.91 (2)
B	II	4.5 (10)	9.46 (2½)	6.8 (15)	4.5 (10)
B	III	.....	45.4 (12)	15.9 (35)	9 (20)
B	IV	.....	75.7 (20)	22.6 (50)	13.6 (30)
B	V	.....	151.4 (40)	453 (100)	22.6 (50)
C	I	1.13 (2½)	.....	1.8 (4)	.91 (2)
C	II	4.5 (10)	.....	6.8 (15)	4.5 (10)

(d) Each portable fire extinguisher and semiportable fire extinguisher must have permanently attached an identification plate that gives the name of the extinguishing-agent, the capacity of the agent in liters (gallons) or kilograms (pounds), the classification of the extinguisher expressed by letter or letters indicating the type or types of fire for which it is intended, and the identifying mark of the manufacturer.

§ 132.220 Installation.

(a) Each portable fire extinguisher approved under subpart 162.028 of this chapter and each semiportable 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 OCFI, who may also deem added extinguishers necessary for the proper protection of the vessel.

TABLE 132.220—CARRIAGE OF PORTABLE AND SEMIPORTABLE FIRE EXTINGUISHERS

Space	Classification (see § 132.210)	Number and placement

TABLE 132.220—CARRIAGE OF PORTABLE AND SEMI-PORTABLE FIRE EXTINGUISHERS—Continued

Space	Classification (see § 132.210)	Number and placement
Safety areas: Communicating passageways	A-II	1. In each main passageway, not more than 45.7 meters (150 feet) apart (permissible in stairways).
Pilothouse	C-I	2. In vicinity of exit.
Service spaces: Galleys	B-II or C-11	1. For each 230 square meters (2,500 feet ²) or fraction thereof, suitable for hazards involved.
Paint lockers	B-II	1. Outside space, in vicinity of exit.
Accessible baggage and storerooms	A-II	1. For each 230 square meters (2,500 feet ²) or fraction thereof, located in vicinity of exits, either inside or outside spaces.
Work shops and similar spaces	A-II	1. Outside space in vicinity of exit.
Machinery spaces: Internal-combustion propulsion-machinery.	B-II	1. For each 1,000 brake horsepower, but not fewer than 2 nor more than 6.
Electric propulsion motors or generators of open type.	B-III	1. Required. ⁽¹⁾ , ⁽²⁾
Auxiliary spaces: Internal combustion	C-II	1. For each propulsion motor or generator unit.
Electric motors and emergency generators.	B-II	1. Outside space in vicinity of exit. ⁽²⁾
	C-II	1. Outside space in vicinity of exit. ⁽²⁾

⁽¹⁾ Not required where a fixed gaseous fire-extinguishing system is installed.
⁽²⁾ Not required on vessels of less than 300 gross tons.

(b) Each semiportable fire extinguisher must be mounted or otherwise placed in the open so as to be readily visible.

(c) 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.

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

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

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

§ 132.230 Spare charges.

(a) Except as provided by paragraph (b) or (c) of this section, each vessel must carry spare charges for 50 percent of the portable fire extinguishers required by § 132.220 of this subpart.

(b) Rather than comply with paragraph (a) of this section, a vessel may carry one extra portable extinguisher of the same classification.

(c) If extinguishers of a particular classification cannot be readily re-

charged by crew members, a vessel must—rather than comply with paragraph (a) of this section—carry one more extinguisher of that classification.

(d) Each spare charge must be packaged so as to minimize the hazards to personnel recharging the extinguishers.

§ 132.240 Stowage of semiportable fire extinguishers.

The frame or support of each semiportable fire extinguisher of size III, IV, or V must be secured to prevent the extinguisher from shifting in heavy weather.

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

§ 132.320

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 vessel may install equipment for detection of and protection against fires 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 a nationally recognized testing laboratory.

§ 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 SEMI-PORTABLE AND FIXED FIRE-EXTINGUISHING SYSTEMS

Type of system	Test
Carbon dioxide	Weigh cylinders. Recharge if weight loss exceeds 10% of weight of charge. Test time delays, alarms, and ventilation shutdowns with carbon dioxide, nitrogen, or other nonflammable gas as stated in the manufacturer's instruction manual. Inspect hoses and nozzles to be sure they are clean.
Halon	Weigh cylinders. Recharge if weight loss exceeds 5% of weight of charge. If the system has a pressure gauge, also recharge if pressure loss (adjusted for temperature) exceeds 10%. Test time delays, alarms, and ventilation shutdowns with carbon dioxide, nitrogen, or other nonflammable gas as stated in the manufacturer's instruction manual. Inspect hoses and nozzles to be sure they are clean.

TABLE 132.350—TESTS OF SEMI-PORTABLE AND FIXED FIRE-EXTINGUISHING SYSTEMS—Continued

Type of system	Test
Dry chemical (cartridge-operated)	Examine pressure cartridge and replace if end is punctured or if cartridge has leaked or is in unsuitable condition. 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 pressure gauge, if there is one, is in 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.

(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]

§ 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.

§ 132.370 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.

PART 133—LIFESAVING SYSTEMS

Subpart A—General

Sec.

133.03 Relationship to international standards.

133.07 Additional equipment and requirements.

133.09 Equivalents.

133.10 Applicability.

133.20 Exemptions.

133.40 Evaluation, testing and approval of lifesaving appliances and arrangements.

133.45 Tests and inspections of lifesaving equipment and arrangements.

Subpart B—Requirements for All OSVs

133.60 Communications.

133.70 Personal lifesaving appliances.

133.80 Emergency instructions.

133.90 Operating instructions.

133.105 Survival craft.

133.110 Survival craft muster and embarkation arrangements.

133.120 Launching stations.

133.130 Stowage of survival craft.

133.135 Rescue boats.

133.140 Stowage of rescue boats.

133.145 Marine evacuation system launching arrangements.

133.150 Survival craft launching and recovery arrangements: General.

133.153 Survival craft launching and recovery arrangements using falls and a winch.

133.160 Rescue boat embarkation, launching and recovery arrangements.

133.170 Line-throwing appliance.

133.175 Survival craft and rescue boat equipment.

AUTHORITY: 46 U.S.C. 3306, 3307; Department of Homeland Security Delegation No. 0170.1.

SOURCE: CGD 84-069, 61 FR 25304, May 20, 1996, unless otherwise noted.