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exception that existing installations in safety areas, accommodations, service spaces, and cargo spaces may be maintained if in the opinion of the Officer in Charge, Marine Inspection, they are in general agreement with the standard of safety prescribed by table 76.50–10(a). In such cases, minor modifications may be made to the same standards as the original installation, provided that in no case will a greater departure from the standards of table 76.50–10(a) be permitted than presently exists.

(2) [Reserved]

(b) [Reserved]

Subpart 76.60—Fire Axes

§ 76.60–1 Application.

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

(b) [Reserved]

§ 76.60–5 Number required.

(a) All vessels except barges shall carry at least the minimum number of fire axes as set forth in table 76.60–5(a). Nothing in this paragraph shall be construed as limiting the Officer in Charge, Marine Inspection, from requiring such additional fire axes as he deems necessary for the proper protection of the vessel.

TABLE 76.60–5(a)

Gross tons		Number of axes
Over	Not over	
.....	50	1
50	200	2
200	500	4
500	1,000	6
1,000	.....	8

(b) Covered barges shall carry at least three fire axes and uncovered barges shall carry at least two fire axes.

§ 76.60–10 Location.

(a) Fire axes shall be distributed throughout the spaces available to passengers and crew so as to be most readily available in the event of emergency.

(b) If fire axes are not located in the open or behind glass so that they may be readily seen, they may be placed in enclosures together with the fire hose, provided such enclosures are marked as required by §78.47–20 of this subchapter.

PART 77—VESSEL CONTROL AND MISCELLANEOUS SYSTEMS AND EQUIPMENT

Subpart 77.01—Application

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77.30–90 Vessels contracted for before November 23, 1992.

Subpart 77.35—Fireman's Outfit

77.35–1 Application.
77.35–5 General.
77.35–10 Fireman's outfit.
77.35–15 Stowage.

77.35–20 Spare charges.
77.35–90 Vessels contracted for before November 23, 1992.

Subpart 77.40—Pilot Boarding Equipment

77.40–1 Pilot boarding equipment.

AUTHORITY: 46 U.S.C. 3306; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; DHS Delegation No. 00170.1, Revision No. 01.4.

SOURCE: CGFR 65–50, 30 FR 16953, Dec. 30, 1965, unless otherwise noted.

Subpart 77.01—Application

§ 77.01–1 General.

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

(b) [Reserved]

§ 77.01–3 Incorporation by reference.

(a) Certain materials are incorporated by reference into this part with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a). To enforce any edition other than the one listed in paragraph (b) of this section, notice of the change must be published in the FEDERAL REGISTER and the material made available to the public. All approved material is on file at the Office of the Federal Register, Washington, DC 20408, and at Coast Guard Headquarters. Contact Commandant (CG-ENG), Attn: Office of Design and Engineering Systems, U.S. Coast Guard Stop 7509, 2703 Martin Luther King Jr. Avenue, SE., Washington, DC 20593-7509. The material is also available from the address indicated in paragraph (b).

(b) The material approved for incorporation by reference in this part, and the sections affected is:

American Society for Testing and Materials (ASTM)

100 Barr Harbor Drive, West Conshohocken, PA 19428–2959.

ASTM F 1014–92, Standard Specification for Flashlights on Vessels—77.35–5

[CGD 82–042, 53 FR 17704, May 18, 1988, as amended by CGD 95–072, 60 FR 50463, Sept. 29, 1995; CGD 96–041, 61 FR 50729, Sept. 27, 1996; CGD 97–057, 62 FR 51045, Sept. 30, 1997; USCG–1999–5151, 64 FR 67181, Dec. 1, 1999; USCG–2009–0702, 74 FR 49231, Sept. 25, 2009; USCG–2012–0832, 77 FR 59779, Oct. 1, 2012; USCG–2013–0671, 78 FR 60150, Sept. 30, 2013]

Subpart 77.03—Marine Engineering Systems

§ 77.03–1 Installation and details.

(a) The installation of all systems of a marine engineering nature, together with the details of design, construction, and installation, shall be in accordance with the requirements of subchapter F (Marine Engineering) of this chapter. Systems of this type include the following:

Steering systems.
Power for going astern.
Bilge and ballast systems.
Tank vent and sounding systems.
Overboard discharges and shell connections.
Pipe and pressure systems.

(b) [Reserved]

Subpart 77.05—Electrical Engineering and Interior Communication Systems

§ 77.05–1 Installation and details.

(a) The installation of all systems of an electrical engineering or interior communications nature, together with the details of design, construction, and installation, shall be in accordance with the requirements of subchapter J (Electrical Engineering) of this chapter. Systems of this type include the following:

Ship's service generating systems.
Ship's service power distribution systems.
Ship's lighting systems.
Electric propulsion and propulsion control systems.
Emergency lighting and power systems.
Electric lifeboat winch systems.
Electric steering gear and steering control systems.
Fire detecting and alarm systems
Sound powered telephone and voice tube systems.
Engine order telegraph systems.
Rudder angle indicator systems.
Refrigerated spaces alarm systems.
Navigation lights systems.
Daylight signaling lights.
Miscellaneous machinery alarms and controls.
General alarm systems.

(b) Electrical equipment installed in spaces ''specially suitable for vehicles'' shall be in accordance with subchapter

J (Electrical Engineering) of this chapter.

[CGFR 65–50, 30 FR 16953, Dec. 30, 1965, as amended by CGFR 66–33, 31 FR 15283, Dec. 6, 1966; CGFR 68–32, 33 FR 5716, Apr. 12, 1968; CGD 74–125A, 47 FR 15231, Apr. 8, 1982]

Subpart 77.06—Lifesaving Appliances and Arrangements

§ 77.06–1 Installation.

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

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

Subpart 77.07—Anchors, Chains, and Hawsers

§ 77.07–1 Application.

(a) The provisions of this subpart, with the exception of § 77.07–90, shall apply to all vessels contracted for on or after November 19, 1952. Vessels contracted for prior to November 19, 1952, shall meet the requirements of § 77.07–90.

(b) [Reserved]

§ 77.07–5 Ocean, coastwise, or Great Lakes service.

(a) Vessels in ocean, coastwise, or Great Lakes service shall be fitted with anchors, chains, and hawsers in general agreement with the standards established by the American Bureau of Shipping, see subpart 70.35 of this subchapter.

(b) In addition to the provisions of paragraph (a) of this section, the following requirements and alternatives also apply:

(1) The American Bureau of Shipping rules relating to anchor equipment are mandatory, not a guide.

(2) Vessels under 200 feet (61 meters) in length and with an American Bureau of Shipping equipment number of less than 150 may be equipped with either—

(i) One anchor of the tabular weight and one-half the tabulated length of anchor chain listed in the applicable standard, or

(ii) Two anchors of one-half the tabular weight with the total length of anchor chain listed in the applicable standard provided both anchors are in a position that allows for ready use at all times and the windlass is capable of heaving in either anchor.

(c) Standards of other recognized classification societies may be used, in lieu of those established by the American Bureau of Shipping, upon approval by the Commandant.

[CGFR 65–50, 30 FR 16953, Dec. 30, 1965, as amended by CGD 87–013, 53 FR 20624, June 6, 1988]

§ 77.07–10 Lakes, bays, and sounds, or river service.

(a) Vessels in lakes, bays, and sounds, or river service shall be fitted with such ground tackle and hawsers as deemed necessary by the Officer in Charge, Marine Inspection, depending upon the size of the vessel and the waters on which it operates.

(b) [Reserved]

§ 77.07–90 Vessels contracted for prior to November 19, 1952.

(a) Vessels contracted for prior to November 19, 1952, shall meet the following requirements:

(1) Installations previously accepted or approved shall be considered satisfactory for the same service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. If the service of the vessel is changed, the suitability of the equipment will be established by the Officer in Charge, Marine Inspection.

(2) [Reserved]

(b) [Reserved]

Subpart 77.09—Radar

§ 77.09–1 When required.

All mechanically propelled vessels of 1,600 gross tons and over in ocean or coastwise service must be fitted with a marine radar system for surface navigation. Facilities for plotting radar readings must be provided on the bridge.

[CGD 75–074, 42 FR 5963, Jan. 31, 1977]

Subpart 77.11—Magnetic Compass and Gyrocompass

§ 77.11–1 When required.

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

(b) All mechanically propelled vessels 1,600 gross tons and over in ocean or coastwise service must be fitted with a gyrocompass in addition to the magnetic compass.

(c) Each vessel must have an illuminated repeater for the gyrocompass required under paragraph (b) of this section, that is at the main steering stand unless the gyrocompass is illuminated and is at the main steering stand.

[CGD 75–074, 42 FR 5963, Jan. 31, 1977]

Subpart 77.27—Sounding Equipment

§ 77.27–1 When required.

All mechanically propelled vessels of 500 gross tons and over to ocean or coastwise service, and all mechanically propelled vessels of 500 gross tons and over in Great Lakes service and certificated for service on the River St. Lawrence eastward of the lower exit of the St. Lambert Lock at Montreal, Canada, must be fitted with an efficient electronic deep-sea sounding apparatus.

[CGD 95–027, 61 FR 26004, May 23, 1996]

Subpart 77.30—Emergency Equipment

§ 77.30–1 Application.

This subpart, except § 77.30–90, applies to each vessel that is not on an international voyage and is contracted for on or after November 23, 1992. Each vessel that is not on an international voyage and is contracted for before November 23, 1992, must satisfy § 77.30–90.

[CGD 86–036, 57 FR 48324, Oct. 23, 1992]

§ 77.30–5 General.

(a) Each self-contained breathing apparatus must be of the pressure-demand, open-circuit type, approved by the Mine Safety and Health Administration (MSHA) and the National Institute for Occupational Safety and Health (NIOSH), and have at a minimum a 30-minute air supply and a full facepiece.

(b) The self-contained breathing apparatus required as part of the emergency outfit may be used as protection against gas leaking from a refrigeration unit.

(c) All flame safety lamps shall be of an approved type, constructed in accordance with subpart 160.016 of subchapter Q (Specifications) of this chapter.

(d) All emergency equipment shall be maintained in an operative condition, and it shall be the responsibility of the master and chief engineer to ascertain that a sufficient number of the crew are familiar with the operation of the equipment.

[CGFR 65–50, 30 FR 16953, Dec. 30, 1965, as amended by CGD 86–036, 57 FR 48324, Oct. 23, 1992]

§ 77.30–10 Stowage.

(a) The equipment set forth in table 77.30–10(a), together with such other items as the master may deem necessary, shall be stowed in convenient, accessible locations for use in case of emergency.

TABLE 77.30–10(a)

Service	Number of passenger staterooms	Self-contained breathing apparatus	Self-contained breathing apparatus for refrigeration [1]	Flame safety lamps
Ocean and coastwise, not on an international voyage	0 to 49	.....	1	.....
	50 to 100	4	1	.....
	Over 100	6	1	1
Great Lakes, and lakes, bays, and sounds	0 to 49	.....	1	.....
	50 to 100	2	1	.....
	Over 100	4	1	1
Rivers	0 to 49	.....	1	.....
	50 to 100	1	1	.....

TABLE 77.30–10(a)—Continued

Service	Number of passenger staterooms	Self-contained breathing apparatus	Self-contained breathing apparatus for refrigeration [1]	Flame safety lamps
	Over 100	2	1	1

[1] Required only on vessels equipped with any refrigeration unit using ammonia to refrigerate any space with a volume of more than 20 cubic feet or with any refrigeration unit using fluorocarbons to refrigerate any space with a volume of more than 1000 cubic feet.

(b) If a separate self-contained breathing apparatus is maintained for protection against gas leaking from a refrigeration unit, it must be stowed convenient to, but outside of, the spaces containing the refrigeration equipment.

(c) Half of the remaining equipment set forth in table 77.30–10(a) shall be stowed in or near the pilothouse together with a fire axe and the hand portable fire extinguishers required by table 76.50–10(a) for that location. The other half of the equipment shall be stowed in a convenient accessible location, remote from the pilothouse, and preferably adjacent to the main entrance to the machinery space. Where only one of an item is required, it shall be stowed in the pilothouse.

[CGFR 65–50, 30 FR 16953, Dec. 30, 1965, as amended by CGD 86–036, 57 FR 48324, Oct. 23, 1992]

§ 77.30–15 Spare charges.

(a) A complete recharge shall be carried for each gas mask and self-contained breathing apparatus. The spare charge shall be stowed in the same location as the equipment it is to reactivate.

(b) [Reserved]

§ 77.30–90 Vessels contracted for before November 23, 1992.

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

(a) Each vessel must satisfy §§ 77.30–5 through 77.30–15 concerning the number of items and the method of stowage of equipment.

(b) Items of equipment previously approved, but not meeting the applicable specifications set forth in § 77.30–5, may continue in service as long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection; but each item in an installation or a replacement must meet all applicable specifications.

(c) After November 23, 1994, each respirator must either satisfy § 77.30–5(a) or be a self-contained compressed-air breathing apparatus previously approved by MSHA and NIOSH under part 160, subpart 160.011, of this chapter.

[CGD 86–036, 57 FR 48324, Oct. 23, 1992]

Subpart 77.35—Fireman's Outfit

§ 77.35–1 Application.

This subpart, except § 77.35–90, applies to each vessel that is on an international voyage and is contracted for on or after November 23, 1992. Each vessel that is on an international voyage and is contracted for before November 23, 1992, must satisfy § 77.35–90.

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

§ 77.35–5 General.

(a) All flame safety lamps shall be of an approved type, constructed in accordance with subpart 160.016 of subchapter Q (Specifications) of this chapter.

(b) Each self-contained breathing apparatus must be of the pressure-demand, open-circuit type, approved by the Mine Safety and Health Administration (MSHA) and the National Institute for Occupational Safety and Health (NIOSH), and have at a minimum a 30-minute air supply and a full facepiece.

(c) Flashlights shall be Type II or Type III, constructed and marked in accordance with ASTM F 1014 (incorporated by reference, see § 77.01–3).

(d) All lifelines shall be of steel or bronze wire rope. Steel wire ropes shall

be either inherently corrosion resistant, or made so by galvanizing or tinning. Each end shall be fitted with a hook with keeper having throat opening which can be readily slipped over a ⅝-inch bolt. The total length of the lifeline shall be dependent upon the size and arrangement of the vessel, and more than one line may be hooked together to achieve the necessary length. No individual length of lifeline may be less than 50 feet in length. The assembled lifeline shall have a minimum breaking strength of 1,500 pounds.

(e) All equipment shall be maintained in an operative condition, and it shall be the responsibility of the master and chief engineer to ascertain that a sufficient number of the crew are familiar with the operation of the equipment.

(f) Boots and gloves shall be of rubber or other electrically nonconducting material.

(g) The helmet shall provided effective protection against impact.

(h) Protective clothing shall be of material that will protect the skin from the heat of fire and burns from scalding steam. The outer surface shall be water resistant.

[CGFR 65–50, 30 FR 16953, Dec. 30, 1965, as amended by CGFR 67–87, 32 FR 19181, Dec. 20, 1967; CGD 82–042, 53 FR 17704, May 18, 1988; CGD 86–036, 57 FR 48325, Oct. 23, 1992; USCG–1999–5151, 64 FR 67181, Dec. 1, 1999; USCG–2014–0688, 79 FR 58282, Sept. 29, 2014]

EFFECTIVE DATE NOTE: At 89 FR 76698, Sept. 18, 2024, § 77.35–5 was amended by removing the text ''the Mine Safety and Health Administration (MSHA) and'' in paragraph (b), effective Oct. 18, 2024.

§ 77.35–10 Fireman's outfit.

(a) Each fireman's outfit must consist of one self-contained breathing apparatus, one lifeline with a belt or a suitable harness, one flashlight, one flame safety lamp, one rigid helmet, boots and gloves, protective clothing, and one fire ax. In lieu of the flame safety lamp, vessels may carry an oxygen depletion meter which is listed by a Coast Guard recognized independent laboratory as intrinsically safe.

(b) The number of fireman's outfits required are as set forth in table 77.35–10(b).

TABLE 77.35–10(b)

Gross tonnage		Minimum number of fireman's outfits
Over—	Not over—	
.....	10,000	2
10,000	20,000	3
20,000	.....	4

[CGFR 65–50, 30 FR 16953, Dec. 30, 1965, as amended by CGFR 67–87, 32 FR 19181, Dec. 20, 1967; CGD 86–036, 57 FR 48325, Oct. 23, 1992; CGD 95–028, 62 FR 51204, Sept. 30, 1997]

§ 77.35–15 Stowage.

(a) The fireman's outfit, together with such other items of equipment as the master may deem necessary, shall be stowed in convenient, accessible locations for use in case of emergency. One outfit shall be stowed in or near the pilothouse. Where additional outfits are required by table 77.35–10(b), one of the additional outfits shall be stowed preferably adjacent to the main entrance to the machinery space. Other additional outfits shall be stowed in convenient accessible locations remote from the pilothouse.

(b) [Reserved]

§ 77.35–20 Spare charges.

(a) A complete recharge shall be carried for each self-contained breathing apparatus, and a complete set of spare batteries shall be carried for each flashlight. The spares shall be stowed in the same location as the equipment it is to reactivate.

(b) [Reserved]

§ 77.35–90 Vessels contracted for before November 23, 1992.

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

(a) Each vessel must satisfy §§ 77.35–5 through 77.35–20 concerning the number of items and the method of stowage of equipment.

(b) Items of equipment previously approved, but not meeting the applicable specifications set forth in § 77.35–5, may continue in service as long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection; but each item in an installation or a replacement must meet all applicable specifications.

(c) After November 23, 1994, each respirator must either satisfy § 77.35–5(b) or be a self-contained compressed-air breathing apparatus previously approved by MSHA and NIOSH under part 160, subpart 160.011, of this chapter.

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

Subpart 77.40—Pilot Boarding Equipment

§ 77.40–1 Pilot boarding equipment.

(a) This section applies to each vessel that normally embarks or disembarks a pilot from a pilot boat or other vessel.

(b) Each vessel must have suitable pilot boarding equipment available for use on each side of the vessel. If a vessel has only one set of equipment, the equipment must be capable of being easily transferred to and rigged for use on either side of the vessel.

(c) Pilot boarding equipment must be capable of resting firmly against the vessel's side and be secured so that it is clear from overboard discharges.

(d) Each vessel must have lighting positioned to provide adequate illumination for the pilot boarding equipment and each point of access.

(e) Each vessel must have a point of access that has—

(1) A gateway in the rails or bulwark with adequate handholds; or

(2) Two handhold stanchions and a bulwark ladder that is securely attached to the bulwark rail and deck.

(f) The pilot boarding equipment required by paragraph (b) of this section must include at least one pilot ladder approved under subpart 163.003 of this chapter. Each pilot ladder must be of a single length and capable of extending from the point of access to the water's edge during each condition of loading and trim, with an adverse list of 15°.

(g) Whenever the distance from the water's edge to the point of access is more than 30 feet, access from a pilot ladder to the vessel must be by way of an accommodation ladder or equally safe and convenient means.

[CGD 79–032, 49 FR 25455, June 21, 1984, as amended by USCG–2020–0519, 89 FR 76698, Sept. 18, 2024]

PART 78—OPERATIONS

Subpart 78.01—Application

Sec.

78.01–1 General; preemptive effect.
78.01–2 Incorporation by reference.

Subpart 78.05—Notice to Mariners and Aids to Navigation

78.05–1 Duty of officers.
78.05–5 Charts and nautical publications.

Subpart 78.07—Notice and Reporting of Casualty and Voyage Records

78.07–1 Notice and reporting of casualty and voyage records.

Subpart 78.10—Persons Allowed in Pilothouse and on Navigation Bridge

78.10–1 Persons excluded.

Subpart 78.12—Stability Information

78.12–1 Posting of stability letter.

Subpart 78.13—Station Bills

78.13–1 Muster lists, emergency signals, and manning.

Subpart 78.15—Doors Closed at Sea

78.15–1 Subdivision bulkheads.

Subpart 78.16—Port Lights

78.16–1 General.

Subpart 78.17—Tests, Drills, and Inspections

78.17–1 Application.
78.17–3 Watertight doors.
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78.17–10 Loudspeaker system.
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78.17–20 Drafts and load line markings.
78.17–22 Verfication of vessel compliance with applicable stability requirements.
78.17–25 Sanitation.
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78.17–33 Loading doors.
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78.17–45 Emergency lighting and power systems.
78.17–50 Emergency training, musters, and drills.
78.17–65 Smoke detecting system.
78.17–75 Requirements for fuel oil.
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