

SUBCHAPTER L—OFFSHORE SUPPLY VESSELS

PART 125—GENERAL

Sec.

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AUTHORITY: 46 U.S.C. 2103, 3306, 3307; 49 U.S.C. App. 1804; Department of Homeland Security Delegation No. 0170.1.

SOURCE: CGD 82-004 and CGD 86-074, 62 FR 49321, Sept. 19, 1997, unless otherwise noted.

§ 125.100 Applicability.

(a) Except as provided by paragraph (c) of this section, this subchapter applies to each offshore supply vessel (OSV) of United States flag contracted for, or the keel of which was laid, on or after March 15, 1996.

(b) Each OSV contracted for, or the keel of which was laid, before March 15, 1996, must be constructed and inspected to comply with—

(1) The regulations in effect until March 15, 1996 (46

CFR subchapter I or subchapter T, as appropriate), as they existed at the time of construction; or

(2) The regulations in this subchapter.

(c) Each OSV permitted grandfathering under paragraph (b)(1) of this section must complete construction and have a Certificate of Inspection by March 16, 1998.

(d) Certain regulations in this subchapter apply only to limited categories of OSVs. Specific statements of applicability appear at the beginnings of those regulations.

(e) As used in this subchapter, the term “vessels contracted for” refers not only to the contracting for the construction of a vessel, but also to the contracting for a major alteration to a vessel, the contracting for the conversion of a vessel to an offshore supply

vessel or liftboat, and the changing of service or route of a vessel if such changing increases or modifies the general requirements for the vessel or increases the hazards to which it might be subjected.

NOTE: Navigation and Vessel Inspection Circular 8-91, “Initial and Subsequent Inspection of Uncertificated Existing Offshore Supply Vessels, Including Liftboats”, contains guidance on how to apply the regulations in 46 CFR subchapters I and T to OSVs.

§ 125.110 Carriage of flammable or combustible liquid cargoes in bulk.

(a) Except as provided by this section, no OSV may carry flammable or combustible liquid cargoes in bulk without the approval of the Commandant (CG-522).

(b) An OSV may carry the following in integral tanks:

(1) Grade-D combustible liquids listed by § 30.25-1 of this chapter, in quantities not to exceed 20 percent of the vessel's deadweight, except that the vessel may carry drilling fluids and excess fuel oil, Grade-E as well as Grade-D, without limit.

(2) Grade-E combustible liquids listed by § 30.25-1 of this chapter, in quantities not to exceed 20 percent of the vessel's deadweight, except that the vessel may carry drilling fluids and excess fuel oil, Grade-D as well as Grade-E, without limit.

(c) An OSV may carry the following in fixed independent tanks on deck: Grade-B and lower-grade flammable and combustible liquids listed by § 30.25-1 of this chapter, in quantities not to exceed 20 percent of the vessel's deadweight.

(d) An OSV may carry hazardous materials in portable tanks, in compliance with part 64 and subpart 98.30 of this chapter. A portable tank may be filled or discharged aboard the vessel if authorized by an endorsement on the vessel's Certificate of Inspection.

[CGD 82-004 and CGD 86-074, 62 FR 49321, Sept. 19, 1997, as amended by USCG-2002-13058, 67 FR 61279, Sept. 30, 2002; USCG-2009-0702, 74 FR 49234, Sept. 25, 2009]

§ 125.120 Carriage of noxious liquid substances in bulk.

(a) Except as provided by this section, no OSV may carry a noxious liquid substance (NLS) in bulk without the approval of the Commandant (CG-522).

(b) An OSV may carry in integral and fixed independent tanks NLSs listed by § 153.2 of this chapter, in quantities not to exceed 20 percent of the vessel's deadweight.

(c) Each OSV carrying NLSs in bulk in integral tanks or fixed independent tanks must—

(1) Meet the definition of oceangoing in 33 CFR 151.05;

(2) Have a Certificate of Inspection or NLS Certificate (issued by the Coast Guard) endorsed with the name of the NLS cargo; and

(3) Have the Cargo Record Book prescribed in § 153.490(a)(1) of this chapter.

(d) An OSV that does not meet the equipment requirements in §§ 153.470 through 153.491 of this chapter may not discharge NLS residues to the sea. The vessel's Certificate of Inspection or NLS Certificate will contain this restriction.

(e) Each OSV that discharges NLS residues to the sea must meet—

(1) The equipment requirements in §§ 153.470 through 153.491 of this chapter; and

(2) The operating requirements in §§ 153.901, 153.903, 153.909, and 153.1100 of this chapter.

[CGD 82-004 and CGD 86-074, 62 FR 49321, Sept. 19, 1997, as amended by USCG-2009-0702, 74 FR 49234, Sept. 25, 2009]

§ 125.130 Carriage of packaged hazardous materials.

An OSV may carry packaged hazardous materials, or hazardous materials in portable tanks, if the materials are prepared, loaded, and stowed in compliance with 49 CFR parts 171 through 179, as applicable.

§ 125.140 Loadlines.

For an OSV assigned a loadline, see subchapter E (Load Lines) of this chapter, for special requirements on strength, loadline markings, closure of openings, and the like.

§ 125.150 Lifesaving systems.

Lifesaving appliances and arrangements must comply with part 133 of this subchapter.

§ 125.160 Definitions.

Each term defined elsewhere in this chapter for a particular class of vessel applies to this subchapter unless a different definition is given in this section. As used by this subchapter—

Accommodations includes spaces such as at least the following:

- (1) A space used as a messroom.
- (2) A lounge.
- (3) A sitting area.
- (4) A recreation room.
- (5) Quarters.
- (6) A toilet space.
- (7) A shower room.

Anniversary date means the day and the month of each year, which corresponds to the date of expiration of the Certificate of Inspection.

Anti-exposure suit means a protective suit designed for use by rescue boat crews and marine evacuation system parties.

Approval series means the first six digits of a number assigned by the Coast Guard to approved equipment. Where approval is based on a subpart of subchapter Q of this chapter, the approval series corresponds to the number of the subpart. A listing of approved equipment, including all of the approval series, is published periodically by the Coast Guard in Equipment Lists (COMDTINST M16714.3 series), available from the Superintendent of Documents.

Approved means approved by the Commandant, unless otherwise defined.

Bulkhead deck means the uppermost deck to which transverse watertight bulkheads and the watertight shell extend.

Coast Guard District Commander or District Commander means an officer of the Coast Guard designated by the Commandant to command activities of the Coast Guard within a Coast Guard district described by 33 CFR part 3, whose duties include the inspection, enforcement, and administration of laws for the safety and navigation of vessels.

Coastwise refers to a route not more than 20 nautical miles offshore on any of the following waters:

- (1) Any ocean.
- (2) The Gulf of Mexico.
- (3) The Caribbean Sea.
- (4) The Gulf of Alaska.
- (5) The Bering Sea.

(6) Such other, similar waters as may be designated by the District Commander.

Combustible liquid means the same as in subpart 30.10 of this chapter.

Commandant means the Commandant of the Coast Guard or an authorized staff officer at Coast Guard headquarters designated by § 1.01–05 of this chapter.

Commanding Officer, Marine Safety Center, means an officer of the Coast Guard designated by the Commandant to command activities of the Coast Guard within the Marine Safety Center, whose duties include review of plans for commercial vessels to ensure compliance with applicable laws and standards.

Crane means a revolving, gantry-mounted, or other type of fixed lifting device used for lifting or moving equipment or supplies. It does not include material handling equipment used for general ship's service, such as lifeboat davits, chain falls, come-alongs, or the like.

Credential means any or all of the following:

- (1) Merchant mariner's document.
- (2) Merchant mariner's license.
- (3) STCW endorsement.
- (4) Certificate of registry.
- (5) Merchant mariner credential.

Crew means all persons carried on board the OSV to provide navigation and maintenance of the OSV, its machinery, systems, and arrangements essential for propulsion and safe navigation or to provide services for other persons on board.

Deadweight means, when measured in water of specific gravity 1.025, the difference in long tons between—

- (1) The displacement of the vessel on even trim at "lightweight" as defined by subpart F of part 170 of this chapter; and
- (2) The displacement of the vessel on even trim at the deepest load waterline.

Embarkation ladder means the ladder provided at survival craft embarkation stations to permit safe access to survival craft after launching.

Embarkation station means the place where a survival craft is boarded.

Existing offshore supply vessel is one contracted for, or the keel of which was laid, before March 15, 1996.

Flammable liquid means the same as in § 30.10–22 of this chapter.

Float-free launching means that method of launching a survival craft or life-saving appliance whereby the craft or appliance is automatically released from a sinking vessel and is ready for use.

Gas-free means free from dangerous concentrations of flammable or toxic gases.

Hazardous material means the same as in § 153.2 of this chapter.

Immersion suit means a protective suit that reduces loss of body heat of a person wearing it in cold water.

Inflatable appliance means an appliance that depends upon nonrigid, gas-filled chambers for buoyancy and that is normally kept uninflated until ready for use.

Inflated appliance means an appliance that depends upon nonrigid, gas-filled chambers for buoyancy and that is kept inflated and ready for use at all times.

International voyage means a voyage between a country to which the International Convention for the Safety of Life at Sea, 1974, as amended (SOLAS 74/83) applies and a port outside that country.

Jacking system means any type of mechanical (including hydraulic) or electrical system used for elevating a liftboat.

Launching appliance or *launching arrangement* means the method or devices for transferring a survival craft or rescue boat from its stowed position to the water. For a launching arrangement using a davit, the term includes the davit, winch, and falls.

Length, relative to a vessel, means the length listed on the vessel's certificate of documentation or the "registered length" as defined by § 69.53 of this chapter.

Lifejacket means a flotation device approved as a life preserver or life-jacket.

Liftboat means an OSV with movable legs capable of raising its hull above the surface of the sea.

Major conversion means a conversion of a vessel that, as determined by the Commandant—

- (1) Substantially changes the dimensions or carrying capacity of the vessel;
- (2) Changes the type of vessel;
- (3) Substantially prolongs the life of the vessel; or
- (4) Otherwise so changes the vessel that it is essentially a new vessel.

Marine evacuation system means an appliance designed to rapidly transfer large numbers of persons from an embarkation station by means of a passage to a floating platform for subsequent embarkation into associated survival craft, or directly into associated survival craft.

Marine inspector means any person authorized by the Officer in Charge, Marine Inspection (OCMI), to perform duties concerning the inspection, enforcement, and administration of laws for the safety and navigation of vessels.

Muster station means the place where the crew and offshore workers assemble before boarding a survival craft.

New offshore supply vessel is one—

- (1) Contracted for, or the keel of which was laid, on or after March 15, 1996; or
- (2) Which underwent a major conversion that was initiated on or after March 15, 1996.

Novel lifesaving appliance or arrangement means one that has new features not fully covered by the provisions of this part but that provides an equal or higher standard of safety.

Noxious liquid substance or *NLS* means the same as in §153.2 of this chapter.

Ocean refers to a route more than 20 nautical miles offshore on any of the following waters:

- (1) Any ocean.
- (2) The Gulf of Mexico.
- (3) The Caribbean Sea.
- (4) The Gulf of Alaska.
- (5) The Bering Sea.

- (6) Such other, similar waters as may be designated by the District Commander.

OCMI means the same as Officer in Charge, Marine Inspection.

Officer in Charge, Marine Inspection means any person of the Coast Guard so designated by the Commandant, to be in charge of an inspection zone for the performance of duties concerning the inspection, enforcement, and administration of laws for the safety and navigation of vessels.

Offshore supply vessel means a vessel that—

- (1) Is propelled by machinery other than steam;
- (2) Does not meet the definition of a passenger-carrying vessel in 46 U.S.C. 2101(22) or 46 U.S.C. 2101(35);
- (3) Is more than 15 but 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
- (4) Regularly carries goods, supplies, individuals in addition to the crew, or equipment in support of exploration, exploitation, or production of offshore mineral or energy resources.

Offshore worker means an individual carried aboard an OSV and employed in a phase of exploration, exploitation, or production of offshore mineral or energy resources served by the vessel; but it does not include the master or a member of the crew engaged in the business of the vessel, who has contributed no consideration for carriage aboard and is paid for services aboard.

OSV means the same as *offshore supply vessel*.

Quarters means any space where sleeping accommodations are provided.

Rescue boat means a boat designed to rescue persons in distress and to marshal survival craft.

Restricted service means service in areas within 12 hours of a harbor of safe refuge or in areas where a liftboat may be jacked up to meet the 100-knot-wind severe-storm criteria of §174.255(c) of this chapter.

Seagoing condition means the operating condition of the OSV with the

personnel, equipment, fluids, and ballast necessary for safe operation on the waters where the OSV operates.

Survival craft means a craft capable of sustaining the lives of persons in distress from the time of abandoning the OSV on which the persons were originally carried. The term includes lifeboats, liferafts, buoyant apparatus, and lifeboats, but does not include rescue boats.

Underwater survey means the examination of the vessel's underwater hull including all through-hull fittings and appurtenances, while the vessel is afloat.

[CGD 82–004 and CGD 86–074, 62 FR 49321, Sept. 19, 1997, as amended by USCG 1999–4976, 65 FR 6505, Feb. 9, 2000; USCG–2000–6858, 67 FR 21082, Apr. 29, 2002; USCG–2007–29018, 72 FR 53966, Sept. 21, 2007; USCG–2006–24371, 74 FR 11266, Mar. 16, 2009]

§ 125.170 Equivalents.

A substitution for fittings, materials, equipment, arrangements, calculations, information, or tests required by this subchapter may be accepted by the cognizant OCMI; by the Commanding Officer, Marine Safety Center; by the District Commander; or by the Commandant, if the substitution provides an equivalent level of safety.

§ 125.180 Incorporation by reference.

(a) Certain materials are incorporated by reference into this subchapter with the approval of the Director of the Federal Register in compliance with 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than the one listed 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 materials are on file for inspection at the U.S. Coast Guard, Office of Operating and Environmental Standards, (CG–522) 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 are available from the sources indicated in paragraph (b) of this section.

(b) The materials approved for incorporation by reference in this subchapter, and the sections affected, are as follows:

American Bureau of Shipping (ABS):	
ABS Plaza, 16855 Northchase Drive, Houston, TX 77060	
Rules for Building and Classing Steel Vessels Under 61 Meters (200 Ft) in Length (1983).	127.210
Rules for Building and Classing Steel Vessels (1995)	127.210; 129.360
Rules for Building and Classing Aluminum Vessels (1975)	127.210
Rules for Building and Classing Mobile Offshore Drilling Units (1994).	133.140; 133.150
American National Standards Institute (ANSI):	
11 West 42nd St., New York, NY 10036	
B 31.1–1986, Code for Pressure Piping, Power Piping	128.240
Z 26.1–1977 (including 1980 Supplement), Safety Code for Safety Glazing Materials for Glazing Motor Vehicles Operating on Land Highways.	127.430
American Society of Mechanical Engineers (ASME) International:	
Three Park Avenue, New York, NY 10016–5990	
Boiler and Pressure Vessel Code Section I, Power Boilers, July 1989 with 1989 addenda.	128.240
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.	128.310
American Yacht and Boat Council, Inc. (AYBC):	
3069 Solomon's Island Rd., Edgewater, MD 21037–1416	
A–3–1993, Galley Stoves	129.550
A–7–1970, Recommended Practices and Standards Covering Boat Heating Systems.	129.550
E–1–1972, Bonding of Direct-Current Systems	129.120

E-8-1994, Alternating-Current (AC) Electrical Systems on Boats.	129.120
E-9-1990, Direct-Current (DC) Electrical Systems on Boats	129.120
Institute of Electrical and Electronics Engineers (IEEE):	
IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08855	
No. 45-1977, Recommended Practice for Electric Installations on Shipboard.	129.340
International Maritime Organization (IMO):	
Publications Section, 4 Albert Embankment, London SE1 7SR, United Kingdom	
Resolution A.520(13), Code of Practice for the Evaluation, Testing and Acceptance of Prototype Novel Life-saving Appliances and Arrangements, dated 17 November 1983.	133.40
Resolution A.658(16), "Use and Fitting of Retro-Reflective Materials on Life-saving Appliances", dated 20 November 1989.	131.855; 131.875; 133.70
Resolution A.760(18), "Symbols Related to Life-Saving Appliances and Arrangements", dated 17 November 1993.	131.875; 133.70; 133.90
International Convention for the Safety of Life at Sea (SOLAS), Consolidated Edition, 1992.	126.170
National Fire Protection Association (NFPA):	
1 Batterymarch Park, Quincy, MA 02269-9101	
NFPA 70, National Electrical Code, 1993 Edition	129.320; 129.340; 129.370
NFPA 306, Control of Gas Hazards on Vessels, 1993 Edition ..	126.160
NFPA 1963, Fire Hose Connections, 1993 Edition	132.130
NFPA 10, Standard for Portable Fire Extinguishers, 1994 Edition.	132.350
NFPA 302—Fire Protection Standard for Pleasure and Commercial Motor Craft, 1994 Edition.	129.550
Underwriters Laboratories, Inc. (UL):	
12 Laboratory Drive, Research Triangle Park, NC 27709-3995	
UL 19-1992, Lined Fire Hose and Hose Assemblies	132.130
UL 486A-1992, Wire Connectors and Soldering Lugs for Use with Copper Conductors.	129.340
UL 489-1995, Molded-Case Circuit Breakers and Circuit-Breaker Enclosures.	129.380
UL 57-1976, Electric Lighting Fixtures	129.410
UL 595-1991, Marine-Type Electric Lighting Fixtures	129.410
UL 1570-1995, Fluorescent Lighting Fixtures	129.410
UL 1571-1995, Incandescent Lighting Fixtures	129.410
UL 1572-1995, High Intensity Discharge Lighting Fixtures ...	129.410
UL 1573-1995, Stage and Studio Lighting Units	129.410
UL 1574-1995, Track Lighting Systems	129.410

[CGD 82-004 and CGD 86-074, 62 FR 49321, Sept. 19, 1997, as amended by CGD 97-057, 62 FR 51047, Sept. 30, 1997; 64 FR 53227, Oct. 1, 1999; USCG 1999-5151, 64 FR 67183, Dec. 1, 1999; USCG-2000-7790, 65 FR 58463, Sept. 29, 2000; USCG-2009-0702, 74 FR 49234, Sept. 25, 2009]

§ 125.190 Right of appeal.

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

PART 126—INSPECTION AND CERTIFICATION

Subpart A—General

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Subpart E—Annual, Periodic, and Alternative Annual Inspections

- 126.510 Annual and periodic inspections.
- 126.520 Certificate of Inspection: Conditions of validity.
- 126.530 Alternative annual inspection for offshore supply vessels less than 400 gross tons in foreign ports.

AUTHORITY: 33 U.S.C. 1321(j); 46 U.S.C. 3205, 3306, 3307; 46 U.S.C. Chapter 701; Executive Order 111735, 38 FR 21243, 3 CFR 1971–1975 Comp., p. 793; Department of Homeland Security Delegation No. 0170.1.

SOURCE: CGD 82–004 and CGD 86–074, 62 FR 49324, Sept. 19, 1997, unless otherwise noted.

Subpart A—General

§ 126.100 Inspector not limited.

Nothing in this part 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.

§ 126.110 Inspection after accident.

(a) The owner or operator of an OSV shall make the vessel available for inspection by a marine inspector—

(1) Each time an accident occurs, or a defect is discovered that affects—

(i) The safety of the vessel; or
(ii) The effectiveness or completeness of its lifesaving, fire-fighting, or other equipment; or

(2) Whenever any important repairs or renewals are made.

(b) The inspection is to ensure that—

(1) The necessary repairs or renewals have been effectively made;

(2) The material and workmanship used to accomplish the repairs or renewals are satisfactory; and

(3) The OSV complies with the regulations in this subchapter.

§ 126.120 Permit to proceed to another port for repairs.

(a) The cognizant OCMI may issue a permit to proceed to another port for repair if in the judgment of this OCMI the vessel can complete the trip safely even though the Certificate of Inspection has expired or is about to expire.

(b) A “Permit to Proceed to another Port for Repairs”, Form CG–948, will be issued by the cognizant OCMI to the owner, operator, or master of the OSV and states the conditions under which the vessel may proceed to another port. The Permit will be issued only upon the written application of the owner, operator, or master, and only after the surrender of the vessel’s Certificate of Inspection to the cognizant OCMI.

(c) The Permit will state on its face the conditions under which it is issued and whether the OSV may carry cargo, goods, supplies, equipment, or offshore workers.

(d) The Permit must be readily available aboard the OSV.

§ 126.130 Cranes.

(a) Except as provided by paragraph (b) of this section, cranes, if installed, must comply with §§ 107.258 through 107.260, 108.601, 109.437, 109.439, 109.521, 109.525, and 109.527 of this chapter.

(b) The manufacturer of a crane may have tests and inspections conducted in compliance with § 107.259 of this chapter, if the surveyor conducting them for the American Bureau of Shipping or the International Cargo Gear Bureau certifies their conduct as required by § 107.259(c) of this chapter.

§ 126.140 Drydocking.

(a) Unless one or more extensions are authorized by the Commandant (CG-543), each OSV must be placed in drydock or hauled out for examination twice each 5 years with no interval between examinations exceeding 3 years.

(b) The owner or operator shall notify the cognizant OCMI whenever the OSV is drydocked for any reason. This OCMI, upon notification, will determine whether to assign a marine inspector to examine the underwater hull of the vessel.

(c) The internal structural members of an OSV must be examined at the same intervals required for drydocking by paragraph (a) of this section.

(d) At each drydocking required by paragraph (a) of this section, for an OSV of 100 or more gross tons, a tailshaft survey must be conducted as required by § 61.20-15 of this chapter.

(e) At each drydocking required by paragraph (a) of this section, for an OSV of less than 100 gross tons, the propeller or tailshaft must be drawn for examination if the cognizant OCMI deems drawing it necessary.

(f) Vessels less than 15 years of age (except wooden hull vessels) that are in salt water service with a twice in 5 year drydock interval 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 (OCMI), 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; and

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

(g) Vessels otherwise qualifying under paragraph (f) 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 the cognizant District Commander;

(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 OCMI, are submitted to Commandant (CG-543) for final approval.

[CGD 82-004 and CGD 86-074, 62 FR 49324, Sept. 19, 1997, as amended by USCG-2000-6858, 67 FR 21082, Apr. 29, 2002; USCG-2009-0702, 74 FR 49234, Sept. 25, 2009]

§ 126.150 Repairs and alterations.

(a) Except in an emergency, no repairs or alterations to the hull or machinery, or to equipment that affects the safety of the OSV, may be made without notice to the cognizant OCMI in the inspection zone where the repairs or alterations are to be made. When the repairs or alterations have been made, notice must be given to this OCMI as soon as practicable.

(b) When emergency repairs or alterations have been made as permitted under paragraph (a) of this section, the master, owner, or operator must notify this OCMI as soon as practicable after the emergency.

(c) Except as provided by paragraphs (b) and (e) of this section, drawings of repairs or alterations must be approved, before work starts, by the cognizant OCMI or, when necessary, by the Commanding Officer, Marine Safety Center (CO, MSC). Drawings will not be needed if deemed unnecessary by this OCMI or by the CO, MSC.

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(d) When the cognizant OCMI deems inspection necessary, the repairs or alterations must be inspected by a marine inspector.

(e) Submission of drawings is not required for repairs in kind, but the applicable drawings approved under subpart A of part 127 of this subchapter must be made available to the marine inspector upon request.

§ 126.160 Tests and inspections during repairs or alterations, or during riveting, welding, burning, or other hot work.

(a) NFPA 306 must be used as a guide in conducting the examinations and issuances of certificates required by this section.

(b) Until an examination has determined that work can proceed safely, no riveting, welding, burning, or other hot work may commence.

(c) Each examination must be conducted as follows:

(1) At any port or site inside the United States or its territories and possessions, a marine chemist certified by the NFPA must make the examination. If the services of such a chemist are not reasonably available, the cognizant OCMI, upon the recommendation of the contractor and the owner or operator of the OSV, may authorize another person to make the examination. If this indicates that a repair or alteration, or hot work, can be undertaken safely, the person performing the examination shall issue a certificate, setting forth the spaces covered and any necessary conditions to be met, before the work starts. These conditions must include any requirements necessary to maintain safe conditions in the spaces covered and must include any necessary further examinations and certificates. In particular the conditions must include precautions necessary to eliminate or minimize hazards caused by protective coatings or by cargo residues.

(2) At any port or site outside the United States or its territories and possessions, where the services of a certified marine chemist or other person authorized by the cognizant OCMI are not reasonably available, the master, owner, or operator of the vessel shall

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make the examination and a proper entry in the OSV's logbook.

(d) The master shall obtain a copy of each certificate issued by the person making the examination described in paragraph (c)(1) of this section. The master, through and for the persons under his control, shall maintain safe conditions aboard the OSV by full observance of each condition to be met, listed in the certificate issued under paragraph (c)(1) of this section.

§ 126.170 Carriage of offshore workers.

(a) Offshore workers may be carried aboard an OSV in compliance with this subchapter. The maximum number of offshore workers authorized for carriage will be endorsed on the vessel's Certificate of Inspection; but in no case will the number of offshore workers authorized for carriage exceed 36.

(b) No more than 12 offshore workers may be carried aboard an OSV certificated under this subchapter when on an international voyage, unless the vessel holds a valid passenger-ship-safety certificate (Form CG-968) issued in compliance with the International Convention for the Safety of Life at Sea, 1974, as amended (SOLAS 74/83).

§ 126.180 Carriage of passengers.

No passengers as defined by 46 U.S.C. 2101(21)(B) may be carried aboard an OSV except in an emergency.

Subpart B—Certificate of Inspection

§ 126.210 When required.

Except as provided by §§ 126.120 and 126.260, no OSV may be operated without a valid Certificate of Inspection.

§ 126.220 Description.

The Certificate of Inspection issued to an OSV specifies the vessel, the route it may travel, the minimum manning it requires, the minimum fire-extinguishing and lifesaving equipment it must carry, the maximum number of offshore workers and of total persons it may carry, the name of its owner and operator, and such other conditions as the cognizant OCMI may determine.

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§ 126.230 How to obtain or renew.

(a) A builder, owner, master, or operator may begin to obtain or to renew a Certificate of Inspection by submitting an "Application for Inspection of U.S. Vessel," Form CG-3752, to the OCMI of the marine inspection zone in which the inspection is to be made. Form CG-3752 is available from any Marine Safety or Marine Inspection Office of the U.S. Coast Guard.

(b) The application for initial inspection of an OSV being newly constructed or undergoing a major conversion must be submitted before the start of construction or conversion.

(c) The construction, arrangement, and equipment of each OSV must be acceptable to the cognizant OCMI for the issuance of the initial Certificate of Inspection. Acceptance depends on the information, specifications, drawings, and calculations available to this OCMI, and on the successful completion of the initial inspection for certification.

(d) A Certificate of Inspection is renewed by the issuance of a new Certificate of Inspection.

(e) The condition of the OSV and its equipment must be acceptable to the cognizant OCMI for the renewal of the Certificate of Inspection. Acceptance depends on the condition of the vessel as found at the periodic inspection for certification.

§ 126.235 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 (CG-841 rev. 3/85) may comply with the Alternate Compliance Program provisions of 46 CFR part 8.

(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-5212), 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).

[USCG-2001-10164, 66 FR 53544, Oct. 23, 2001, as amended by USCG-2006-25697, 71 FR 55746, Sept. 25, 2006; USCG-2009-0702, 74 FR 49234, Sept. 25, 2009]

§ 126.240 Posting.

The Certificate of Inspection must be framed under glass or other suitable transparent material and posted in a conspicuous place aboard the OSV so that each page is visible.

§ 126.250 Period of validity for a Certificate of Inspection.

(a) A Certificate of Inspection is valid for 5 years.

(b) A Certificate of Inspection may be suspended and withdrawn or revoked by the cognizant OCMI at any time for noncompliance with the requirements of this subchapter or other applicable laws.

[CGD 82-004 and CGD 86-074, 62 FR 49324, Sept. 19, 1997, as amended by USCG 1999-4976, 65 FR 6505, Feb. 9, 2000]

§ 126.260 Temporary Certificate.

If necessary to prevent delay of the OSV, a "Temporary Certificate of Inspection," Form CG-854, containing information listed by § 126.220 may be issued pending the issuance and delivery of the regular Certificate of Inspection. A Temporary Certificate must be carried in the same manner as the regular Certificate.

§ 126.270 Amendment.

(a) An amended Certificate of Inspection may be issued at any time by any OCMI. The amended Certificate of Inspection replaces the original, but the expiration date remains the same as that of the original. An amended Certificate of Inspection may be issued to authorize and record a change in the dimensions, gross tonnage, owner, operator, manning, offshore workers permitted, route permitted, conditions of operations, equipment, or the like from that specified in the current Certificate of Inspection.

(b) A request for an amended Certificate of Inspection must be made to the cognizant OCMI by the owner or operator of the vessel at any time there is a change in the character of a vessel or

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in its route, equipment, ownership, operation, or similar factors specified in its current Certificate of Inspection.

(c) The cognizant OCMI may require an inspection before issuing an amended Certificate of Inspection.

Subpart C—Initial Inspection

§ 126.310 Prerequisite to Certificate of Inspection.

The initial inspection is a prerequisite to the issuance of the original Certificate of Inspection.

§ 126.320 When made.

(a) No initial inspection occurs until after receipt of the written application of the owner or builder of the vessel to the OCMI in whose zone the vessel is located. The application must be on Form CG-3752, "Application for Inspection of U.S. Vessel."

(b) The initial inspection occurs at a time and place agreed to by the party requesting the inspection and by the cognizant OCMI. The owner or the builder, or a representative of either, must be present during the inspection.

§ 126.330 Plans.

Before construction starts, the owner, operator, or builder shall develop plans indicating the proposed arrangement and construction of the vessel. (The list of plans to be developed and the required disposition of these plans appears in part 127 of this subchapter.)

§ 126.340 Scope.

The initial inspection normally consists of a series of inspections conducted during the construction of the vessel. This inspection determines whether the vessel was built to comply with developed plans and in compliance with applicable law. Items normally included in this inspection are all the items listed in §126.430 and in addition the marine inspector verifies that the arrangement of the vessel conforms to the approved plans, that acceptable material is used in the construction of the vessel, and that the workmanship meets required standards for marine construction. The owner or builder shall make the vessel available for in-

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spection at each stage of construction specified by the cognizant OCMI.

§ 126.350 Specific tests and inspections.

(a) The applicable tests and inspections set forth in subpart D of this part must be made during the initial inspection.

(b) The following specific tests and inspections must also be conducted in the presence of the marine inspector:

(1) Installation of piping for gaseous fixed fire-extinguishing (see §95.15–15 of this chapter).

(2) Hydraulic steering-systems. If fitted with manual operation, these systems must be tested in the manual mode, with the hydraulic pumps secured, for smooth, efficient operation by one person.

Subpart D—Inspection for Certification

§ 126.410 Prerequisite to reissuance of Certificate of Inspection.

An inspection for certification is a prerequisite to the reissuance of a Certificate of Inspection.

§ 126.420 Application for Certificate of Inspection.

You must submit a written application for an inspection for certification to the cognizant OCMI. 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 OCMI 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 6505, Feb. 9, 2000]

§ 126.430 Scope.

The inspection for certification is made by a marine inspector to determine whether the vessel is in a safe and seaworthy condition. The owner or builder shall make the vessel and its

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equipment available for inspection, including the following items:

- (a) Structure.
- (b) Watertight integrity.
- (c) Pressure vessels and their appurtenances.
- (d) Piping.
- (e) Main and auxiliary machinery.
- (f) Steering apparatus.
- (g) Electrical installations.
- (h) Lifesaving equipment.
- (i) Work vests.
- (j) Fire-detecting and fire-extinguishing equipment.
- (k) Pollution-prevention equipment.
- (l) Sanitary condition.
- (m) Fire hazards.
- (n) Verification of validity of certificates required and issued by the Federal Communications Commission.
- (o) Lights and signals as required by the applicable navigational rules.
- (p) Tests and inspections of cranes in compliance with § 126.130.

§ 126.440 Lifesaving equipment.

At each inspection for certification, the tests and inspections specified by § 91.25–15 of this chapter must occur in the presence of a marine inspector, or as otherwise directed by the cognizant OCMI.

§ 126.450 Fire-extinguishing equipment.

At each inspection for certification, the marine inspector determines whether the tests and inspections required by § 132.350 of this subchapter have been performed.

§ 126.460 Tanks for dry bulk cargo.

The owner shall ensure that tanks for dry bulk cargo that are pressure vessels are inspected for compliance with § 61.10–5(b) of this chapter.

§ 126.470 Marine-engineering systems.

The inspection procedures for marine-engineering systems contained in subchapter F of this chapter apply.

§ 126.480 Safety Management Certificate.

(a) All offshore supply vessels of 500 gross tons or over to which 33 CFR part 96 applies, on an international voyage must have a valid Safety Management Certificate and a copy of their com-

pany's valid Document of Compliance certificate on board.

(b) A Safety Management Certificate is issued for a period of not more than 60 months.

[CGD 95–073, 62 FR 67515, Dec. 24, 1997]

Subpart E—Annual, Periodic, and Alternative Annual Inspections

SOURCE: USCG 1999–4976, 65 FR 6505, Feb. 9, 2000, unless otherwise noted.

§ 126.510 Annual and periodic inspections.

(a) *Annual inspection.* Your vessel must undergo an annual inspection within 3 months before or after each anniversary date, except as required in paragraph (b) of this section.

(1) You must contact the cognizant OCMI 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 § 126.430, 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 OCMI.

(4) Nothing in this subpart limits the marine inspector from making 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.

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This periodic inspection will take the place of an annual inspection.

(1) You must contact the cognizant OCMI 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 § 126.430. The OCMI 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 OCMI.

(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.

§ 126.520 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 § 126.510 (a) and (b) and your Certificate of Inspection must be endorsed.

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

(a) The owner, master or operator of an OSV of less than 400 gross tons may request authorization to conduct an alternative annual inspection in place of the annual inspection described in § 126.510(a) of this subpart. The request must go to the cognizant OCMI assigned responsibility for inspections in the country in which the vessel is operating and will be examined. To qualify for the alternative annual examination, the vessel must meet the following requirements:

(1) The request must be in writing and be received by the OCMI not later than the anniversary date.

(2) The vessel is likely to be continuously employed outside of the United

States during the 3 months before and after each anniversary date.

(b) In determining whether to authorize the alternative annual inspection, the OCMI considers the following:

(1) Information contained in previous examination reports on inspection and drydock, including the recommendation of the then cognizant OCMI for participation in the alternative midperiod program and alternative annual examination.

(2) The nature, number, and severity of marine casualties or accidents, as defined in § 4.03–1 of this chapter, involving the vessel in the 3 years preceding the request.

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

(4) The owner's or operator's history of compliance and cooperation in such alternative midperiod examinations and annual inspections, including:

(i) The prompt correction of deficiencies.

(ii) The reliability of previously submitted reports on such alternative midperiod examinations and annual inspections.

(iii) The reliability of representations that the vessel would be, and was, employed outside of the United States during the 3 months before and after each anniversary date.

(c) This OCMI provides the applicant with written authorization, if any, to proceed with the alternative annual inspection, including, when appropriate, special instructions.

(d) The following conditions must be met for the alternative annual inspection to be accepted instead of the annual inspection required by § 126.510 of this subpart:

(1) The alternative annual inspection must occur within the 3 months before or after each anniversary date.

(2) The alternative annual inspection must be of the scope detailed by § 126.510(a) of this subchapter and must be conducted by the master, owner or operator of the vessel, or by a designated representative of the owner or operator.

(3) Upon completion of the alternative annual inspection, the person or persons making the examination must

prepare a comprehensive report describing the conditions found. This report must contain sufficient detail to let the OCMI determine whether the vessel is fit for the service and route specified on the Certificate of Inspection. This report must include all reports and receipts documenting the servicing of lifesaving equipment and any photographs or sketches necessary to clarify unusual circumstances. Each person preparing this report must sign it and certify that the information contained therein is complete and accurate.

(4) Unless the master of the vessel participated in the alternative annual inspection and the preparation of the comprehensive report, the master will review the report for completeness and accuracy. The master must sign the report to indicate his or her review and validation and must forward it to the owner or operator of the vessel.

(5) The owner or operator of a vessel examined under this section must review and submit the comprehensive report, required by paragraph (d)(3) of this section, to the OCMI. The report must reach the OCMI before the first day of the fifth month following the anniversary date. The forwarding letter or endorsement must be certified to be true and must contain the following information:

(i) That the person or persons who made the alternative annual inspection acted on behalf of the vessel's owner or operator.

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

(iii) That the discrepancies noted during the reinspection have been corrected, or will be within a stated time.

(iv) That the owner or operator has sufficient personal knowledge of conditions aboard the vessel at the time of the reinspection, or has conducted inquiries necessary to justify forming a belief that the report is complete and accurate.

(e) The form of certification required under this section, for the alternative annual inspection, is as follows:

I certify that to the best of my knowledge and belief the information contained in the report is complete and accurate.

(f) Deficiencies and hazards discovered during the alternative annual in-

spection conducted pursuant to this section must be corrected or eliminated, if practical, before the examination report is submitted to the OCMI in accordance with paragraph (d)(5) of this section. Deficiencies and hazards that are not corrected or eliminated by the time the examination report is submitted must be listed in the report as "outstanding." Upon receipt of an examination report indicating outstanding deficiencies or hazards, the OCMI must inform the owner or operator in writing of the time period within 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 must initiate appropriate enforcement measures.

(g) Upon receipt of the report, the OCMI will evaluate it and determine the following:

(1) Whether the cognizant OCMI accepts the alternative annual inspection instead of the annual inspection required by § 126.510(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.

(h) The OCMI may require further information necessary for the determinations required by this section. The OCMI will inform the owner or operator in writing of these determinations.

(i) If the OCMI, in compliance with paragraph (g) of this section, does not accept the alternative annual inspection instead of the annual inspection required by § 126.510(a) of this subpart, he or she will require reinspection of the vessel as soon as practicable. He or she will inform the vessel owner or operator in writing that the alternative examination is not acceptable and that a reinspection is necessary. The owner, master, or operator must make the vessel available for the reinspection at a time and place agreeable to this OCMI.

(j) If the OCMI determines, in accordance with paragraph (g) of this section,

that the alternative annual inspection is accepted in lieu of the annual inspection required by § 126.510(a) of this subpart, the master must complete the applicable COI endorsement.

PART 127—CONSTRUCTION AND ARRANGEMENTS

Subpart A—Plan Approval

Sec.

- 127.100 General.
- 127.110 Plans and specifications required for new construction.
- 127.120 Procedure for submittal of plans.

Subpart B—Particular Construction and Arrangements

- 127.210 Structural standards.
- 127.220 General fire protection.
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- 127.250 Ventilation for enclosed spaces.
- 127.260 Ventilation for accommodations.
- 127.270 Location of accommodations and pilothouse.
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- 127.310 Where rails required.
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- 127.410 Safety-glazing materials.
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- 127.430 Visibility from pilothouse.
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AUTHORITY: 46 U.S.C. 3306; Department of Homeland Security Delegation No. 0170.1.

SOURCE: CGD 82–004 and CGD 86–074, 62 FR 49328, Sept. 19, 1997, unless otherwise noted.

Subpart A—Plan Approval

§ 127.100 General.

Plans listed by § 127.110 of this subpart must be submitted for approval after the owner or builder applies for inspection in compliance with § 126.320 of this subchapter.

§ 127.110 Plans and specifications required for new construction.

Each applicant for approval of plans and for an original Certificate of In-

spection shall submit three copies of the following:

- (a) *General*. (1) Specifications (information only).
- (2) General Arrangement Plans.
- (3) Safety Plan (Fire-Control Plan), for OCMI review and approval.
- (b) *Hull structure*. (1) Midship Section.
- (2) Booklet of Scantling Plans.
- (c) *Subdivision and stability*. [For plans required for subdivision and stability, see subchapter S of this chapter.]
- (d) *Marine engineering*. (1) Piping diagrams of each Class I systems.
- (2) Piping diagrams of the following Class II systems (the builder's certification of Class II non-vital piping systems must accompany the piping diagrams in compliance with § 128.220(c) of this subchapter):
 - (i) Systems for fill, transfer, and service of fuel oil.
 - (ii) Fire-main and fixed gaseous fire-extinguishing systems.
 - (iii) Bilge systems.
 - (iv) Ballast systems.
 - (v) Fluid-driven power and control systems.
 - (vi) Through-hull penetrations and shell connections.
 - (vii) Sanitary systems.
 - (viii) Vents, sounding tubes, and overflows.
 - (ix) Compressed-air systems.
- (3) Steering and steering-control systems.
- (4) Propulsion and propulsion-control systems.
- (5) Piping diagrams of each system containing any flammable, combustible, or hazardous liquid including—
 - (i) Cargo-oil systems;
 - (ii) Systems for combustible drilling-fluid (such as oil-based liquid mud); and
 - (iii) Cargo-transfer systems for fixed independent or portable tanks.
- (e) *Electrical engineering*. (1) For each vessel of less than 100 gross tons, the following plans must be submitted:
 - (i) Arrangement of electrical equipment (plan and profile) with equipment identified as necessary to show compliance with this subchapter.
 - (ii) Electrical one-line diagram that includes wire types and sizes, overcurrent-device rating and setting, and

type of electrical-equipment enclosure (drip-proof, watertight, or the like).

(iii) Switchboard plans required by paragraphs (e) and (f) of §110.25-1 of this chapter.

(2) For each vessel of 100 or more gross tons, the plans required by §110.25 of this chapter must be submitted.

(f) *Automation*. For each vessel of 100 or more gross tons, where automated systems are provided to replace specific personnel in the control and observation of the propulsion systems and machinery spaces, or to reduce the level of crew associated with the engine department, the following plans must be submitted:

(1) Plans necessary to demonstrate compliance with subpart D of part 130 of this subchapter.

(2) Automation-test procedure.

(3) Operations manual.

§ 127.120 Procedure for submittal of plans.

If a vessel is to be constructed, altered, or repaired, the plans, information, and calculations required by this part must be submitted—

(a) To the OCMI in the zone where the vessel is to be constructed, altered, or repaired; or

(b) By visitors to the U.S. Coast Guard Marine Safety Center, 1900 Half Street, SW., Suite 1000, Room 525, Washington, DC 20024, or 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/MS>.

[USCG-2007-29018, 72 FR 53966, Sept. 21, 2007, as amended by USCG-2009-0702, 74 FR 49235, Sept. 25, 2009]

Subpart B—Particular Construction and Arrangements

§ 127.210 Structural standards.

(a) Except as provided by paragraphs (b) and (c) of this section, compliance with the construction and structural rules established by the American Bureau of Shipping and incorporated by reference in §125.180 is acceptable for the design and construction of an OSV.

(b) The current standards of other recognized classification societies, or any other established current standard, may also be used upon approval by the Commandant (CG-521).

(c) If no established current standard for design is used, detailed design calculations must be submitted with the plans required by §127.110 of this part.

(d) The plans required by §127.110 of this part should specify their standard for design.

[CGD 82-004 and CGD 86-074, 62 FR 49328, Sept. 19, 1997, as amended by USCG-2009-0702, 74 FR 49235, Sept. 25, 2009]

§ 127.220 General fire protection.

(a) Each vessel must be designed and constructed to minimize fire hazards, as far as reasonable and practicable.

(b) Exhausts of internal-combustion engines, galley uptakes, and similar sources of ignition must be kept clear of and insulated from woodwork and other combustible matter.

(c) Paint lockers and similar compartments must be constructed of steel or be wholly lined with steel.

(d) Except as provided by paragraph (e) of this section, when a compartment containing the emergency source of electric power, or vital components of that source, adjoins a space containing either the ship's service generators or machinery necessary for the operation of the ship's service generators, each common bulkhead and deck must be of "A-60" Class construction as defined by §72.05-10 of this chapter.

(e) The "A-60" Class construction required by paragraph (d) of this section is unnecessary if the emergency source of electric power is in a ventilated battery locker that—

(1) Is located above the main deck;

(2) Is located in the open; and

(3) Has no boundaries contiguous with other decks or bulkheads.

§ 127.230 Subdivision and stability.

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

§ 127.240 Means of escape.

(a) Except as provided by paragraphs (l) and (m) of this section, there must

be at least two means of escape, exclusive of windows and portholes, from each of the following spaces:

(1) Each space accessible to offshore workers.

(2) Crew accommodations and each space where the crew may normally be employed.

(b) At least one of the two means of escape must—

(1) Be independent of watertight doors in bulkheads required by part 174 of this chapter to be watertight; and

(2) Lead as directly to the open deck as practicable.

(c) The two means of escape required by paragraph (a) of this section must be widely separated and, if possible, at opposite ends or sides of the space, to minimize the possibility that one incident will block both escapes.

(d) Except as provided by paragraph (e) of this section, a vertical ladder ending at a deck scuttle may not be either of the means of escape required by paragraph (a) of this section.

(e) A vertical ladder ending at a deck scuttle may be the second means of escape if the—

(1) Primary means of escape is a stairway or passageway;

(2) Installation of another stairway or passageway is impracticable;

(3) Scuttle is located where stowed deck cargo could not interfere;

(4) Scuttle is fitted with a quick-acting release, and with a hold-back device to hold it open; and

(5) Scuttle meets the requirements for location, strength, and height of coaming in subchapter E of this chapter.

(f) Each vertical ladder must—

(1) Have rungs that are—

(i) At least 410 millimeters (16 inches) long;

(ii) At most 300 millimeters (12 inches) apart, uniform for the length of the ladder; and

(iii) At least 180 millimeters (7 inches) from the nearest permanent object in back of the ladder;

(2) Have at least 115 millimeters (4½ inches) of clearance above each rung;

(3) Be made of incombustible materials; and

(4) Have an angle of inclination with the horizontal, greater than 70 degrees but not more than 90 degrees.

(g) No means may be provided for locking any interior door giving access to either of the two required means of escape, except that a crash door or locking-device, capable of being easily forced in an emergency, may be employed if a permanent and conspicuous notice to this effect is attached to both sides of the door. A means may be provided for locking an exterior door to a deckhouse if the door is—

(1) Locked only by a key under the control of one of the OSV's officers; and

(2) Always operable from the inside.

(h) Each passageway or stairway must be wide enough to provide an effective means of escape for the number of persons having access to it even if each person is wearing a lifejacket. There must be no protrusions in the means of escape that could cause injury, ensnare clothing, or damage lifejackets.

(i) No interior stairway, other than within the machinery spaces or cargo holds, may be less than 710 millimeters (28 inches) wide. The angle of inclination of each stairway with the horizontal must not exceed 50 degrees.

(j) No dead-end passageway, or equivalent, may be more than 13.1 meters (40 feet) in length.

(k) Vertical access must be provided between the various weather decks by means of vertical or permanently inclined ladders. The angles of inclination of the inclined ladders with the horizontal must not exceed 70 degrees, except that vertical ladders may be used for access to pilot-house tops and other house tops used only for weather protection.

(l) Only one means of escape need be provided from each of the spaces stipulated in paragraph (a) of this section, provided the maximum area of each space is less than 28 square meters (300 square feet) and the maximum dimension (length, breadth, or depth) of each space is less than 6 meters (20 feet).

(m) Alternative means of escape from spaces may be provided if acceptable to the cognizant OCMI.

§ 127.250 Ventilation for enclosed spaces.

(a) Each enclosed space within the vessel must be properly vented or ventilated. Means must be provided for closing each vent and ventilator.

(b) Means must be provided for stopping each fan in a ventilation system serving machinery and cargo spaces and for closing, in case of fire, each doorway, ventilator, and annular space around funnels and other openings into such spaces.

§ 127.260 Ventilation for accommodations.

(a) Each accommodation space must be adequately ventilated in a manner suitable for the purpose of the space.

(b) Each vessel of 100 or more gross tons must be provided with a mechanical ventilation system unless the cognizant OCMI is satisfied that a natural system, such as opening windows, port-holes, or doors, will accomplish adequate ventilation in ordinary weather.

§ 127.270 Location of accommodations and pilothouse.

(a) Neither quarters for crew members or offshore workers nor the pilothouse may be located forward of the collision bulkhead required by § 174.190 of this chapter.

(b) Except as provided in paragraph (c) of this section, no part of any deck with accommodations for crew members or offshore workers may be below the deepest load waterline.

(c) Any deck with accommodations for crew members or offshore workers may be below the deepest load waterline if—

(1) The vessel complies with the damage-stability requirements in § 174.205 of this chapter; and

(2) The deck head of the space is not below the deepest load waterline.

(d) No hawse pipe or chain pipe may pass through accommodations for crew members or offshore workers.

(e) There must be no direct access, except through solid, close-fitted doors or hatches, between accommodations and chain lockers, cargo spaces, or machinery spaces.

(f) No sounding tubes, or vents from fuel-oil or cargo-oil tanks may open into accommodations for crew mem-

bers or offshore workers, except that sounding tubes may open into passageways.

(g) No access openings from fuel-oil or cargo-oil tanks may open into quarters for crew members or offshore workers.

(h) Quarters for crew members must be separate from and independent of those for offshore workers unless the cognizant OCMI approves an alternative arrangement.

§ 127.280 Construction and arrangement of quarters for crew members and accommodations for offshore workers.

(a) The following requirements apply to quarters for crew members on each vessel of 100 or more gross tons:

(1) Quarters for crew members must be divided into staterooms none of which berths more than four members.

(2) Each stateroom for use by crew members must—

(i) Have clear headroom of at least 1.9 meters (6 feet, 3 inches); and

(ii) Contain at least 2.8 square meters (30 square feet) of deck and at least 6 cubic meters (210 cubic feet) of space for each member accommodated. The presence in a stateroom of equipment for use by the occupants does not diminish the area or volume of the room.

(3) There must be at least one toilet, one washbasin, and one shower or bathtub for every eight or fewer crew members who do not occupy a stateroom to which a private or a semiprivate facility is attached.

(b) The following requirements apply to accommodations for offshore workers on each vessel of 100 or more gross tons:

(1) Each offshore worker aboard must be provided with adequate fixed seating. The width of each seat should be at least 460 millimeters (18 inches). The spacing of fixed seating must be sufficient to allow ready escape in case of fire or other emergency. The following are minimal requirements:

(i) Aisles 4.6 meters (15 feet) in length or less must not be less than 610 millimeters (24 inches) wide.

(ii) Aisles more than 4.6 meters (15 feet) in length must not be less than 760 millimeters (30 inches) wide.

(iii) Where the seating is in rows, the distance from seat front to seat front

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must not be less than 760 millimeters (30 inches).

(2) If the intended operation of a vessel is to carry offshore workers aboard for more than 24 hours, quarters for them must be provided. Each stateroom for use by them must—

- (i) Berth no more than six workers;
- (ii) Have clear headroom of at least 1.9 meters (6 feet, 3 inches); and
- (iii) Contain at least 1.9 square meters (20 square feet) of deck and at least 4 cubic meters (140 cubic feet) of space for each worker accommodated. The presence in a stateroom of equipment for use by the occupants does not diminish the area or volume of the room.

(3) Toilets and washbasins for use by offshore workers must meet the requirements of paragraph (a)(3) of this section.

(c) Each crew member and offshore worker aboard a vessel of less than 100 gross tons must be provided with accommodations of adequate size and construction, and with equipment for his or her protection and convenience suitable to the size, facilities, and service of the vessel.

(d) For each vessel of 100 or more gross tons, the bulkheads and decks separating accommodations for crew members and offshore workers from machinery spaces must be of “A” Class construction as defined by §92.07-5 of this chapter.

(e) After reviewing the arrangement drawings required by §127.110 of this part, the cognizant OCMi will determine, and record on the vessel’s Certificate of Inspection, the number of offshore workers that the vessel may carry.

Subpart C—Rails and Guards

§ 127.310 Where rails required.

(a) Each vessel must have permanently installed efficient guard rails or bulwarks on decks and bridges. Each rail or bulwark must stand at least 1 meter (39½ inches) from the deck except that, where this height would interfere with the normal operation of the vessel, the cognizant OCMi may approve a lesser height.

(b) At exposed peripheries of the freeboard and superstructure decks,

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each rail must consist of at least three courses, including the top. The opening below the lowest course must be no more than 230 millimeters (9 inches) with courses no more than 380 millimeters (15 inches) apart. On other decks and bridges each rail must consist of at least two courses, including the top, approximately evenly spaced.

(c) If satisfied that the installation of any rail of the required height would be impracticable, the cognizant OCMi may accept hand grabs or a rail of a lesser height in its place.

§ 127.320 Storm rails.

Suitable storm rails must be installed in each passageway and at the deckhouse sides, including in way of inclined ladders, where persons aboard have normal access. They must be installed on both sides of passageways which are more than 1.8 meters (6 feet) wide.

§ 127.330 Guards in dangerous places.

Suitable hand covers, guards, or rails must be installed on each exposed and dangerous place, such as gears of rotating machinery, and hot surfaces.

Subpart D—Construction of Windows, Visibility, and Operability of Coverings

§ 127.410 Safety-glazing materials.

Glass and other glazing material used in windows must be material that will not break into dangerous fragments if fractured.

§ 127.420 Strength.

Each window or porthole, and its means of attachment to the hull or the deckhouse, must be capable of withstanding the maximum expected load from wind and waves, due to its location on the vessel’s and the authorized route of the vessel.

§ 127.430 Visibility from pilothouse.

(a) Windows and other openings at the pilothouse must be of sufficient size and properly located to provide adequate view for safe operation in any condition.

(b) Glass or other glazing material used in windows at the pilothouse must

have a light transmission of at least 70 percent according to Test 2 of ANSI Z26.1, “Code for Safety Glazing Materials for Glazing Motor Vehicles Operating on Land Highways,” and must comply with Test 15 of ANSI Z26.1 for Class I Optical Deviation.

§ 127.440 Operability of window coverings.

Any covering or protection placed over a window or porthole that could be used as a means of escape must be able to be readily removed or opened. It must be possible to open or remove the covering or protection without anyone’s having to go onto a weather deck. It may be necessary to break the glass of a window or porthole before removing or opening the covering or protection.

PART 128—MARINE ENGINEERING: EQUIPMENT AND SYSTEMS

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128.450 Liquid-mud systems.

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

SOURCE: CGD 82-004 and CGD 86-074, 62 FR 49331, Sept. 19, 1997, unless otherwise noted.

Subpart A—General

§ 128.110 Equipment and systems.

(a) Except as provided by this part, the design, installation, testing, and inspection of materials, machinery, pressure vessels, and piping must comply with subchapter F of this chapter.

(b) This part contains requirements for equipment and systems commonly found on an OSV. If additional or unique systems, such as for low-temperature cargoes, are to be installed, they too must comply with subchapter F of this chapter.

§ 128.120 Plan approval.

The plans required by subchapter F of this chapter need not be submitted if the plans required by § 127.110(d) of this subchapter have been.

§ 128.130 Vital systems.

(a) Vital systems are those systems that are vital to a vessel’s survivability and safety. For the purpose of this subchapter, the following are vital systems:

(1) Systems for fill, transfer, and service of fuel oil.

(2) Fire-main systems.

(3) Fixed gaseous fire-extinguishing systems.

(4) Bilge systems.

(5) Ballast systems.

(6) Steering systems and steering-control systems.

(7) Propulsion systems and their necessary auxiliaries and control systems.

(8) Systems for transfer and control of cargo, for integral tanks or fixed independent tanks, in compliance with § 125.110 of this subchapter.

(9) Ship’s service and emergency electrical-generation systems and their auxiliaries vital to the vessel’s survivability and safety.

(10) Any other marine-engineering system identified by the cognizant OCMi as crucial to the survival of the vessel or to the protection of the personnel aboard.

(b) For the purpose of this subchapter, a system not identified by paragraph (a) of this section is a non-vital system.

Subpart B—Materials and Pressure Design

§ 128.210 Class II vital systems—materials.

Except as provided by §§ 128.230 and 128.240 of this subpart, instead of complying with part 56 of this chapter, materials used in Class II vital piping-systems may be accepted by the cognizant OCMI or the Commanding Officer, Marine Safety Center, if shown to provide a level of safety equivalent to materials in subpart 56.60 of this chapter.

§ 128.220 Class II non-vital systems—materials and pressure design.

(a) Except as provided by §§ 128.230, 128.240, and 128.320 of this subpart, a Class II non-vital piping-system need not meet the requirements for materials and pressure design of subchapter F of this chapter.

(b) Piping for salt-water service must be of a corrosion-resistant material and, if ferrous, be hot-dip galvanized or be at least of extra-heavy schedule in wall thickness.

(c) Each Class II non-vital piping-system must be certified by the builder as suitable for its intended service. A written certificate to this effect must be submitted with the plans required by § 127.110(d) of this subchapter.

(d) The cognizant OCMI will review the particular installation of each system for the safety hazards identified in paragraphs (a), (b)(1), and (c) through (k) of § 56.50–1 of this chapter, and will add requirements as appropriate.

§ 128.230 Penetrations of hulls and watertight bulkheads—materials and pressure design.

(a) Each piping penetration, in each bulkhead required by this subchapter to be watertight, must meet the requirements for materials and pressure design of subchapter F of this chapter.

(b) Each overboard discharge and shell connection, up to and including required shut-off valves, must meet the requirements for materials and pressure design of subchapter F of this chapter.

§ 128.240 Hydraulic or pneumatic power and control—materials and pressure design.

(a) Each standard piping component (such as pipe runs, fittings, flanges, and standard valves) for hydraulic or pneumatic power and control systems must meet the requirements for materials and pressure design of § 128.110, 128.210, or 128.220 of this part, as appropriate.

(b) Any non-standard hydraulic or pneumatic component (such as control valves, check valves, relief valves, and regulators) may be accepted by the cognizant OCMI or the Commanding Officer, Marine Safety Center, if the component is certified by the manufacturer as suitable for marine service and if—

(1) The component meets each of the requirements for materials and pressure design of subparts 56.60 and 58.30 of this chapter and if its service is limited to the manufacturer's rated pressure; or

(2) The service of the component is limited to $\frac{1}{2}$ the manufacturer's recommended maximum allowable working pressure (MAWP) or $\frac{1}{10}$ the component's burst pressure. Burst-pressure testing is described in ANSI B 31.1, Paragraph 104.7.A, and must be conducted to comply with Paragraph A–22, Section I, ASME Boiler and Pressure Vessel Code. Written certification of results of burst-pressure testing must be submitted with the plans required by § 127.110(d) of this subchapter.

Subpart C—Main and Auxiliary Machinery

§ 128.310 Fuel.

(a) Except as provided by paragraph (b) of this section, each internal-combustion engine installed on an OSV, whether for main propulsion or for auxiliaries, must be driven by a fuel having a flashpoint of not lower than 43 °C (110 °F) as determined by ASTM D 93 (incorporated by reference, see § 125.180).

(b) The use of a fuel with a flashpoint of lower than 43 °C (110 °F) must be specifically approved by the Commandant

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(CG-521), except in an engine for a gasoline-powered rescue boat.

[CGD 82-004 and CGD 86-074, 62 FR 49331, Sept. 19, 1997, as amended by USCG-2000-7790, 65 FR 58463, Sept. 29, 2000; USCG-2009-0702, 74 FR 49235, Sept. 25, 2009]

§ 128.320 Exhaust systems.

No diesel-engine exhaust system need meet the material requirements in § 58.10-5(d)(1)(i) of this chapter if the installation is certified as required by § 128.220(c) of this part.

Subpart D—Design Requirements for Specific Systems

§ 128.410 Ship's service refrigeration systems.

No self-contained unit either for air-conditioning or for refrigerated spaces for ship's stores need comply with § 58.20-5, 58.20-10, 58.20-15, 58.20-20(a), or 58.20-20(b) of this chapter if—

(a) The unit uses a fluorocarbon refrigerant allowed by part 147 of this chapter;

(b) The manufacturer certifies that the unit is suitable for its intended purpose; and

(c) Electrical wiring meets the applicable requirements in subchapter J of this chapter.

§ 128.420 Keel cooler installations.

(a) Except as provided by this section, each keel cooler installation must comply with § 56.50-96 of this chapter.

(b) Approved metallic flexible connections may be located below the deepest-load waterline if the system is a closed loop below the waterline and if its vent is located above the waterline.

(c) Fillet welds may be used in the attachment of channels and half-round pipe sections to the bottom of the vessel.

(d) Short lengths of approved non-metallic flexible hose fixed by metallic or non-metallic hose-clamps may be used at machinery connections if—

(1) The clamps are of a corrosion-resistant material;

(2) The clamps do not depend on spring tension for their holding power; and

(3) Two of the clamps are used on each end of the hose, except that one

clamp may be used on an end expanded or beaded to provide a positive stop against hose slippage.

(4) The clamps are resistant to vibration, high temperature, and brittleness.

[CGD 82-004 and CGD 86-074, 62 FR 49331, Sept. 19, 1997, as amended by USCG-2000-7790, 65 FR 58463, Sept. 29, 2000]

§ 128.430 Non-integral keel cooler installations.

(a) Each hull penetration for a non-integral keel cooler installation must be made through a cofferdam or at a seachest and must be provided with isolation valves fitted as close to the sea inlet as possible.

(b) Each non-integral keel cooler must be protected against damage from debris and grounding by protective guards or by recessing the cooler into the hull.

[CGD 82-004 and CGD 86-074, 62 FR 49331, Sept. 19, 1997, as amended by USCG-2000-7790, 65 FR 58463, Sept. 29, 2000]

§ 128.440 Bilge systems.

(a) Except as provided by this section, each bilge system must comply with §§ 56.50-50 and 56.50-55 of this chapter.

(b) If the steering room, engine room, centerline passageway, forward machinery space, and compartment containing the dry-mud tanks are the only below-deck spaces that must be fitted with bilge suction, the vessel may be equipped to the standards of §§ 56.50-50 and 56.50-57 of this chapter applicable to a dry-cargo vessel of less than 55 meters (180 feet) in length.

§ 128.450 Liquid-mud systems.

(a) Liquid-mud piping systems may use resiliently seated valves of Category A to comply with §§ 56.20-15 and 56.50-60 of this chapter.

(b) Tanks for oil-based liquid mud must be fitted with tank vents equipped with flame screens. Vents must not discharge to the interior of the vessel.

PART 129—ELECTRICAL INSTALLATIONS

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

SOURCE: CGD 82–004 and CGD 86–074, 62 FR 49332, Sept. 19, 1997, unless otherwise noted.

Subpart A—General Provisions

§ 129.100 General.

This part contains requirements for the design, construction, and installation of electrical equipment and systems including power sources, lighting, motors, miscellaneous equipment, and safety systems.

§ 129.110 Applicability.

Except as specifically provided in this subchapter, electrical installations on OSVs must comply with subchapter J of this chapter.

[CGD 82–004 and CGD 86–074, 62 FR 49332, Sept. 19, 1997, as amended by USCG–2010–0759, 75 FR 60003, Sept. 29, 2010]

§ 129.120 Alternative standards.

(a) An OSV of 19.8 meters (65 feet) in length or less may meet the following requirements of the American Yacht and Boat Council Projects, where applicable, instead of § 129.340 of this part:

(1) E–1, Bonding of Direct Current Systems.

(2) E–8, AC Electrical Systems on Boats.

(3) E–9, DC Electrical Systems on Boats.

(b) An OSV with an electrical installation operating at a potential of less than 50 volts may comply with 33 CFR 183.430 instead of § 129.340 of this part.

Subpart B—General Requirements

§ 129.200 Design, installation, and maintenance.

Electrical equipment on a vessel must be designed, installed, and maintained to—

(a) Provide services necessary for safety under normal and emergency conditions;

(b) Protect crew members, offshore workers, and the vessel from electrical hazards, including fire, caused by or originating in electrical equipment and electrical shock;

(c) Minimize accidental personal contact with energized parts; and

(d) Prevent electrical ignition of flammable vapors.

§ 129.210 Protection from wet and corrosive environments.

(a) Electrical equipment used in the following spaces must be drip-proof:

(1) A machinery space.

(2) A space normally exposed to splashing, water wash-down, or other wet conditions within a galley, a laundry, or a public washroom or toilet room that has a bath or shower.

(3) Every other space with similar wet conditions.

(b) Electrical equipment exposed to the weather must be watertight.

(c) Electrical equipment exposed to corrosive environments must be of suitable construction and must be resistant to corrosion.

§ 129.220 Basic safety.

(a) Electrical equipment and installations must be suitable for the roll, pitch, and vibration of the vessel under way.

(b) All equipment, including switches, fuses, and lampholders, must be suitable for the voltage and current used.

(c) Receptacle outlets of the type providing a grounded pole or a specific direct-current polarity must be of a configuration that does not permit improper connection.

(d) Electrical equipment and circuits must be clearly marked and identified.

(e) Any cabinet, panel, box, or other enclosure containing more than one source of power must be fitted with a sign warning persons of this condition and identifying the circuits to be disconnected.

Subpart C—Power Sources and Distribution Systems**§ 129.310 Power sources.**

(a)(1) Each vessel that relies on electricity to power the following loads must be arranged so that the loads can be energized from at least two sources of electricity:

(i) Any system identified as a vital system in §128.130(a) of this subchapter.

(ii) Interior lights.

(iii) Communication systems.

(iv) Navigational equipment and lights.

(v) Fire-protection equipment.

(2) A vessel with batteries of enough capacity for 3 hours of continuous operation to supply the loads specified in paragraph (a)(1) of this section, and with a generator or alternator driven by a propulsion engine, complies with paragraph (a)(1) of this section.

(b) Where a generator driven by a propulsion engine is used as a source of electrical power, no speed change, throttle movement, or change in direction of the propeller shaft of the vessel may interrupt power to any of the loads specified in paragraph (a)(1) of this section.

§ 129.315 Power sources for OSVs of 100 or more gross tons.

(a) The requirements of this section apply instead of those in subpart 111.10 of this chapter.

(b) If a generator provides electrical power for any system identified as a vital system by §128.130(a) of this subchapter, at least two power-generating sets must be provided. At least one set must be independent of the main propulsion plant. A generator not independent of the main propulsion plant must comply with §111.10-4(d) of this chapter. With any one generating set stopped, the remaining set or sets must provide the power necessary for the loads required by this section.

§ 129.320 Generators and motors.

(a) Each generator and motor, except a submersible-pump motor, must be—

(1) In an accessible space, adequately ventilated and as dry as practicable; and

(2) Mounted above the bilges to avoid damage by splash and to avoid contact with low-lying vapors.

(b) Each generator and motor must be designed for an ambient temperature of 50 °C (122 °F), except that—

(1) If the ambient temperature, in the space where a generator or motor is, does not exceed 40 °C (104 °F) under normal operating conditions, the generator or motor may be designed for an ambient temperature of 40 °C (104 °F); and

(2) A generator or motor designed for an ambient temperature of 40 °C (104 °F) may be used in a location where the ambient temperature is 50 °C (122 °F), if

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the generator or motor is derated to 80 percent of the full-load rating and if the rating or setting of the overcurrent devices of the generator or motor is reduced accordingly.

(c) For each generator rated at 50 volts or more, a voltmeter and an ammeter used for measuring voltage and current while the generator is in operation must be provided. For each alternating-current generator, a means for measuring frequency must also be provided. To ensure satisfactory operation of each generator, additional control equipment and measuring instruments, if needed, must also be provided.

(d) Each generator must have a nameplate attached to it indicating—

(1) Name of manufacturer, type of generator, and designation of frame;

(2) Output in kilowatts, or horsepower rating;

(3) Kind of rating (continuous, overload, or other);

(4) Amperes at rated load, voltage, and frequency;

(5) Number of phases, if applicable;

(6) Type of windings, if DC;

(7) When intended for connection in a normally grounded configuration, the grounding polarity; and

(8) For a generator derated to comply with paragraph (b)(2) of this section, the derated capacity.

(e) Each motor must have attached to it a nameplate containing the information required by Article 430 of NFPA 70.

§ 129.323 Multiple generators.

If an OSV uses two or more generators to supply electricity for the ship's service loads, to comply with § 129.310(a) of this subpart, the following requirements must be met:

(a) Each generator must have an independent prime mover.

(b) The circuit breaker of a generator to be operated in parallel with another generator must comply with §§ 111.12-11(f), 111.30-19(a), and 111.30-25(d) of this chapter.

(c) The circuit breaker of a generator not to be operated in parallel with another generator must be interlocked to prevent that generator from being connected to the switchboard simultaneously with another.

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§ 129.326 Dual-voltage generators.

If a dual-voltage generator is installed on an OSV—

(a) The neutral of the dual-voltage system must be solidly grounded at the switchboard's neutral bus and be accessible for checking the insulation resistance of the generator; and

(b) Ground detection must be provided that—

(1) For an alternating-current system, complies with § 111.05-27 of this chapter; and

(2) For a direct-current system, complies with § 111.05-29 of this chapter.

§ 129.330 Distribution panels and switchboards.

(a) Each distribution panel or switchboard must be in a location as dry as practicable, accessible, adequately ventilated, and protected from falling debris and dripping or splashing water.

(b) Each distribution panel or switchboard must be totally enclosed and of the dead-front type.

(c) Each switchboard must have nonconductive handrails.

(d) Each switchboard or main distribution panel must be fitted with a dripshield, unless the switchboard or distribution panel is of a type mounted deck-to-overhead and is not subject to falling objects or liquids from above.

(e) Each distribution panel and switchboard accessible from the rear must be constructed to prevent a person's accidental contact with energized parts.

(f) Working space must be provided around each main distribution panel and switchboard of at least 610 millimeters (24 inches) in front of the switchboard and, of at least 460 millimeters (18 inches) from the nearest bulkhead, stiffener, or frame behind the switchboard. Rear access is prohibited when the working space behind the switchboard is less than 460 millimeters (18 inches).

(g) Nonconductive mats or grating must be provided on the deck in front of each switchboard and, if the switchboard is accessible from the rear, on the deck behind the switchboard.

(h) Each uninsulated current-carrying part must be mounted on noncombustible, nonabsorbent, high-dielectric insulating material.

(i) Equipment mounted on a hinged door of an enclosure must be constructed or shielded so that no person will come into accidental contact with energized parts of the door-mounted equipment when the door is open and the circuit energized.

(j) Bus capacity of switchboards and main distribution panels must be sized in accordance with §111.30-19(a) of this chapter. Panelboards must have current rating of not less than the feeder-circuit capacity.

§ 129.340 Cable and wiring.

(a) If individual wires, rather than cables, are used in systems operating at a potential of greater than 50 volts, the wire and associated conduit must be run in a protected enclosure. The protected enclosure must have drain holes to prevent the buildup of condensation.

(b) Each cable and wire must—

(1) Have stranded copper conductors with sufficient current-carrying capacity for the circuit in which it is used;

(2) Be installed so as to avoid or reduce interference with radio reception and compass indication;

(3) Be protected from the weather;

(4) Be supported so as to avoid chafing or other damage;

(5) Be installed without sharp bends;

(6) Be protected by metal coverings or other suitable means, if in areas subject to mechanical abuse;

(7) Be suitable for low temperature and high humidity, if installed in refrigerated compartments;

(8) Be located outside a tank, unless it supplies power to equipment in the tank; and

(9) Have sheathing or wire insulation compatible with the fluid in a tank, when installed to comply with paragraph (b)(8) of this section.

(c) Cable and wire in power and lighting circuits must be #14 AWG or larger. Cable and wire in control and indicator circuits must be #22 AWG or larger, or be ribbon cable or similar, smaller, conductor-size cable recommended by the equipment manufacturer for use in circuits for low-power instrumentation, monitoring, or control.

(d) Cable and wire for power and lighting circuits must—

(1) Comply with Section 310-13 of the NEC (NFPA 70), except that no asbestos-insulated cable or dry-location cable may be used;

(2) Be listed by Underwriters Laboratories, Inc. as UL Boat or UL Marine Shipboard cable; or

(3) Comply with §111.60-1 of this chapter for cable, and §111.60-11 of this chapter for wire.

(e) Cable and wire serving vital systems listed in §128.130(a) of this subchapter or serving emergency loads must be routed as far as practicable from areas at high risk for fire, such as galleys, laundries, and machinery spaces.

(f) Cable or wire serving duplicated equipment must be separated so that a casualty that affects one cable does not affect the other.

(g) Each connection to a conductor or a terminal part of a conductor must be made within an enclosure and—

(1) Have a pressure-type connector on each conductor;

(2) Have a solder lug on each conductor;

(3) Have a splice made with a pressure-type connector to a flexible lead or conductor; or

(4) Be splice-soldered, brazed, or welded to a flexible lead or conductor.

(h) A connector or lug of the set-screw type must not be used with a stranded conductor smaller than No. 14 AWG, unless there is a nonrotating follower that travels with the set screw and makes pressure contact with the conductor.

(i) Each pressure-type wire connector and lug must comply with UL 486A. No wire nuts may be used.

(j) Each terminal block must have terminal screws 6-32 or larger.

(k) Each wire connector used in conjunction with screw-type terminal blocks must be of the captive type such as the ring or the flanged-spade type.

(1) No cable may be spliced in—

(1) A hazardous location; or

(2) Another location, except—

(i) A cable installed in a subassembly may be spliced to a cable installed in another subassembly;

(ii) For a vessel receiving alterations, a cable may be spliced to extend a circuit;

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(iii) A cable of large diameter or exceptional length may be spliced to facilitate its installation.

(iv) A cable may be spliced to replace a damaged section of itself if, before replacement of the damaged section, the insulation resistance of the remainder of the cable is measured, and the condition of the insulation is unimpaired.

(m) All material in a cable splice must be chemically compatible with other material in the splice and with the materials in the cable.

(n) Ampacities for conductors must comply with Section 310-15 of the NEC (NFPA 70), or with IEEE Standard 45, as appropriate.

(o) Each conductor must be sized so that the voltage drop at the load terminals does not exceed 10 percent.

(p) Each metallic covering of armored cable must—

(1) Be electrically continuous; and

(2) Be grounded at each end of the run to the—

(i) Hull (on a metallic vessel); or

(ii) Common ground plate (on a non-metallic vessel); and

(3) Have final sub-circuits grounded at the supply end only.

(q) Each portable or temporary electric cord or cable must be constructed and used in compliance with the requirements of §111.60-13 of this chapter for flexible electric cord or cable.

§ 129.350 Batteries—general.

(a) Wherever a battery is charged, there must be natural or induced ventilation to dissipate the gases generated.

(b) Each battery must be located as high above the bilge as practicable within the space the battery is located in and be secured to protect against shifting due to roll, pitch, and heave motions or vibration of the vessel, and free from exposure to splash or spray of water.

(c) Each battery must be accessible for maintenance and removal.

(d) Each connection to a battery terminal must be made with a permanent connector, rather than with spring clips or other temporary clamps.

(e) Each battery must be mounted in a tray lined with, or constructed of, lead or other material resistant to damage by the electrolyte.

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(f) Each battery charger must have an ammeter connected in the charging circuit.

(g) Unless the battery is adjacent to its distribution panel or switchboard that distributes power to the lighting, motor, and appliance circuits, the battery leads must have fuses in series with and as close as practicable to the battery.

(h) Each battery used for starting an engine must be located as close as possible to the engine or engines served.

§ 129.353 Battery categories.

This section applies to batteries installed to meet the requirements of §129.310(a) for secondary sources of power to vital loads.

(a) *Large.* A large battery-installation is one connected to a battery charger having an output of more than 2 kW, computed from the highest possible charging current and rated voltage of the battery installed.

(b) *Small.* A small battery-installation is one connected to a battery charger having an output of 2 kW or less, computed from the highest possible charging current and rated voltage of the battery installed.

§ 129.356 Battery installations.

(a) *Large.* Each large battery-installation must be located in a locker, room, or enclosed box dedicated solely to the storage of batteries. Ventilation must be provided in accordance with §111.15-10 of this chapter. Electrical equipment located within the battery enclosure must be approved by an independent laboratory for hazardous locations of Class I, Division 1, Group B, and must meet subpart 111.105 of this chapter.

(b) *Small.* Each small battery-installation must be located in a well-ventilated space and protected from falling objects. No small battery-installation may be in a closet, storeroom, or similar space.

§ 129.360 Semiconductor-rectifier systems.

(a) Each semiconductor-rectifier system must have an adequate heat-removal system to prevent overheating.

(b) If a semiconductor-rectifier system is used in a propulsion system or in another vital system, it must—

- (1) Have a current-limiting circuit;
- (2) Have external overcurrent protection; and
- (3) Comply with Sections 4/5.84.2 and 4/5.84.4 of the “Rules for Building and Classing Steel Vessels” of the American Bureau of Shipping.

§ 129.370 Equipment grounding.

(a) On a metallic vessel each metallic enclosure and frame of electrical equipment must be permanently grounded to the hull. On a nonmetallic vessel each enclosure and frame of electrical equipment must be bonded to each other and to a common ground by a conductor not normally carrying current.

(b) Each metallic case of instruments must be grounded. So must each secondary winding of instrument transformers.

(c) Each equipment grounding conductor must be sized to comply with section 250-95 of NEC (NFPA 70).

(d) Each nonmetallic mast and topmast must have a lightning-ground conductor.

§ 129.375 System grounding.

(a) If a grounded distribution system is provided, there must be only one connection to ground, regardless of the number of power sources. This connection must be at the main switchboard.

(b) On each metallic vessel, a grounded distribution system must be grounded to the hull. On each nonmetallic vessel, the neutral of a grounded system must be connected to a common ground plate, except that no aluminum grounding conductors may be used.

(c) On each nonmetallic vessel with a grounded distribution system, the common ground plate must have—

- (1) Only one connection to the main switchboard; and
- (2) The connection to itself readily accessible for checking.

(d) On each nonmetallic vessel with a ground plate provided for radio equipment, the plate must be connected to the common ground plate.

(e) Each insulated grounding-conductor of a cable must be identified by one of the following means:

(1) Wrapping of the cable with green braid or green insulation.

(2) Stripping of the insulation from the entire exposed length of the grounding-conductor.

(3) Marking of the exposed insulation of the grounding-conductor with green tape or green adhesive labels.

(f) No vessel's hull may carry current as a conductor except for—

(1) An impressed-current cathodic-protection system; or

(2) A battery system to start an engine.

(g) No cable armor may be used to ground electrical equipment or systems.

(h) Each receptacle outlet and attachment plug, for a portable lamp, tool, or similar apparatus operating at 100 or more volts, must have a grounding-pole and a grounding-conductor in the portable cord.

§ 129.380 Overcurrent protection.

(a) Overcurrent protection must be provided for each ungrounded conductor, to open the electric circuit if the current reaches a value that causes an excessive or dangerous temperature in the conductor or its insulation.

(b) Each conductor of a control, interlock, or indicator circuit, such as a conductor for an instrument, pilot light, ground-detector light, or potential transformer, must be protected by an overcurrent device.

(c) Each generator must be protected by an overcurrent device set at a value not exceeding 115 percent of the generator's full-load rating.

(d) Circuits of control systems for steering gear must be protected against short circuit.

(e) Each feeder circuit for steering gear must be protected by a circuit breaker that complies with §§ 58.25-55(a) and (b) of this chapter.

(f) Each branch circuit for lighting must be protected against overcurrent by either fuses or circuit breakers. Neither the fuses nor the circuit breakers may be rated at more than 30 amperes.

(g) Each conductor must be protected in accordance with its current-carrying capacity. If the allowable current-carrying capacity does not correspond to a standard size of device, the next larger

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overcurrent device may be used, provided it is less than 150 percent of the conductor's current-carrying capacity.

(h) An overcurrent device must be installed to protect each motor conductor and control apparatus against overcurrent due to short circuit or ground fault. Each overcurrent device must be capable of carrying the starting current of the motor.

(i) An emergency switch must be provided in each normally ungrounded main supply conductor from a battery. The switch must be accessible from the battery and located as close as practicable to it.

(j) No grounded conductor of a circuit may be disconnected by a switch or circuit breaker unless the ungrounded conductors are all simultaneously disconnected.

(k) A means of disconnect must be provided on the supply side of and adjacent to each fuse, to de-energize the fuse for inspection and maintenance.

(l) A way for locking the means of disconnect open must be provided unless the means of disconnect for a fused circuit is within sight of the equipment that the circuit supplies.

(m) Each fuse must be of the cartridge type and be listed by Underwriters Laboratories (UL) or another independent laboratory recognized by the Commandant.

(n) Each circuit breaker must meet UL 489 and be of the manually-reset type designed for—

- (1) Inverse delay;
 - (2) Instantaneous short-circuit protection; and
 - (3) Switching duty if the breaker is used as a switch.
- (o) Each circuit breaker must indicate whether it is open or closed.

§ 129.390 Shore power.

Each vessel that has an electrical system operating at more than 50 volts and has provisions for receiving shore power must meet the requirements of this section:

(a) A shore-power-connection box or receptacle must be permanently installed at a convenient location.

(b) A cable connecting the shore-power-connection box or receptacle to the switchboard or main distribution panel must be permanently installed.

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(c) A circuit breaker must be provided at the switchboard or main distribution panel for the shore-power connection.

(d) The circuit breaker, required by paragraph (c) of this section, must be interlocked with the feeder circuit breakers for the vessel's power sources to preclude the vessel's power sources and shore power from energizing the vessel's switchboard simultaneously, except in cases where system devices permit safe momentary paralleling of OSV power with shore power.

§ 129.395 Radio installations.

A separate circuit, with overcurrent protection at the switchboard, must be provided for at least one radio installation. Additional radios, if installed, may be powered from a local lighting power source, such as the pilothouse lighting panel, provided each radio power source has a separate overcurrent protection device.

Subpart D—Lighting Systems

§ 129.410 Lighting fixtures.

(a) Each globe, lens, or diffuser of a lighting fixture must have a high-strength guard or be made of high-strength material, except in accommodations, the pilothouse, the galley, or similar locations where the fixture is not subject to damage.

(b) No lighting fixture may be used as a connection box for a circuit other than the branch circuit supplying the fixture.

(c) Each lighting fixture must be installed as follows:

(1) Each lighting fixture and lampholder must be fixed. No fixture may be supported by the screw shell of a lampholder.

(2) Each pendant-type lighting fixture must be suspended by and supplied through a threaded rigid-conduit stem.

(3) Each tablelamp, desk lamp, floorlamp, or similar equipment must be so secured in place that it cannot be displaced by the roll, pitch, or heave or by the vibration of the vessel.

(d) Each lighting fixture in an electrical system operating at more than 50 volts must comply with UL 595,

“Marine Type Electric Lighting Fixtures.” A lighting fixture in an accommodation space, radio room, galley, or similar interior space may comply with UL 57, “Electric Lighting Fixtures,” UL 1570, “Fluorescent Lighting Fixtures,” UL 1571, “Incandescent Lighting Fixtures,” UL 1572, “High Intensity Discharge Lighting Fixtures,” UL 1573, “Stage and Studio Lighting Units,” or UL 1574, “Track Lighting Systems,” as long as the general marine requirements of UL 595 are satisfied.

§ 129.420 Branch circuits for lighting on OSVs of 100 or more gross tons.

On each vessel of 100 or more gross tons, each branch circuit for lighting must comply with § 111.75-5 of this chapter, except that—

(a) Appliance loads, electric-heater loads, and isolated small-motor loads may be connected to a lighting-distribution panelboard; and

(b) Branch circuits, other than for lighting, connected to the lighting-distribution panelboard permitted by paragraph (a) of this section may have fuses or circuit breakers rated at more than 30 amperes.

§ 129.430 Navigational lighting.

(a) Each vessel of less than 100 gross tons and less than 19.8 meters (65 feet) in length must have navigational lighting in compliance with the applicable navigation rules.

(b) Each vessel of 100 or more gross tons, or 19.8 meters (65 feet) or more in length, must have navigational lighting in compliance with the applicable navigation rules and with § 111.75-17(d) of this chapter.

§ 129.440 Emergency lighting.

(a) A vessel of less than 100 gross tons must have adequate emergency lighting fitted along the line of escape to the main deck from accommodations and working (machinery) spaces below the main deck.

(b) The emergency lighting required by paragraph (a) of this section must automatically actuate upon failure of the main lighting. Unless a vessel is equipped with a single source of power for emergency lighting, it must have

individual battery-powered lighting that is—

(1) Automatically actuated upon loss of normal power;

(2) Not readily portable;

(3) Connected to an automatic battery-charger; and

(4) Of enough capacity for 6 hours of continuous operation.

§ 129.450 Portable lighting.

Each vessel must be equipped with at least two operable, portable, battery-powered lights. One of these lights must be located in the pilothouse, another at the access to the engine room.

Subpart E—Miscellaneous Electrical Systems

§ 129.510 Lifeboat winches.

Each lifeboat winch operated by electric power must comply with subparts 111.95 and be approved under approval series in subparts 160.015 or 160.151 of this chapter.

[CGD 82-004 and CGD 86-074, 62 FR 49332, Sept. 19, 1997, as amended by USCG-2011-0618, 76 FR 60754, Sept. 30, 2011]

§ 129.520 Hazardous areas.

(a) No OSV that carries flammable or combustible liquid with a flashpoint of below 140 °F (60 °C), or carries hazardous cargoes on deck or in integral tanks, or is involved in servicing wells, may have electrical equipment installed in pump rooms, in hose-storage spaces, or within 3 meters (10 feet) of a source of vapor on a weather deck unless the equipment is explosion-proof or intrinsically safe under § 111.105-9 or 111.105-11 of this chapter.

(b) No electrical equipment may be installed in any locker used to store paint, oil, turpentine, or other flammable liquid unless the equipment is explosion-proof or intrinsically safe under § 111.105-9 or § 111.105-11 of this chapter.

(c) Equipment that is explosion-proof and intrinsically safe must comply with subpart 111.105 of this chapter.

§ 129.530 General alarm.

Each vessel must be fitted with a general alarm that complies with subpart 113.25 of this chapter.

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§ 129.540 Remote stopping-systems on OSVs of 100 or more gross tons.

(a) Except as provided by paragraph (b) of this section, each vessel must be fitted with remote stopping-systems that comply with subpart 111.103 of this chapter.

(b) The following remote stopping-systems may substitute for remote stopping-systems that must comply with subpart 111.103 of this chapter:

(1) For each propulsion unit, in the pilothouse.

(2) For each discharge pump for bilge slop or dirty oil, at the deck discharge.

(3) For each powered ventilation system, outside the space ventilated.

(4) For each fuel-oil pump, outside the space containing the pump.

(5) For each cargo-transfer pump for combustible and flammable liquid, at each transfer-control station.

(c) Remote stopping-systems required by this section may be combined.

§ 129.550 Power for cooking and heating.

(a) Equipment for cooking and heating must be suitable for marine use. Equipment designed and installed to comply with ABYC Standards A-3 and A-7 or Chapter 6 of NFPA 302 meets this requirement.

(b) The use of gasoline for cooking, heating, or lighting is prohibited.

(c) The use of liquefied petroleum gas for cooking, heating, or other purposes must comply with subpart 58.16 of this chapter.

(d) Each electric space-heater must be provided with a thermal cut-out to prevent overheating.

(e) Each element of an electric space-heater must be enclosed, and the case or jacket of the element made of a corrosion-resistant material.

(f) Each electrical connection for a cooking appliance must be drip-proof.

§ 129.560 Engine-order telegraphs.

No OSV need carry an engine-order telegraph, provided the vessel meets the requirements of § 113.35-3(d) of this chapter.

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PART 130—VESSEL CONTROL, AND MISCELLANEOUS EQUIPMENT AND SYSTEMS

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Subpart A—Vessel Control

§ 130.110 Internal communications on OSVs of less than 100 gross tons.

Each vessel of less than 100 gross tons equipped with an independent auxiliary means of steering, as required by § 130.130(b) of this subpart, must have a fixed means of communication between the pilothouse and the place where the auxiliary means of steering is controlled.

§ 130.120 Propulsion control.

- (a) Each vessel must have—
 - (1) A propulsion-control system operable from the pilothouse; and
 - (2) A means at each propulsion engine of readily disabling the propulsion-control system to permit local operation.
- (b) Each propulsion-control system operable from the pilothouse must enable—
 - (1) Control of the speed of each propulsion engine;
 - (2) Control of the direction of propeller-shaft rotation;
 - (3) Control of propeller pitch, if a controllable-pitch propeller is fitted; and
 - (4) Shutdown of each propulsion engine.
- (c) The propulsion-control system operable from the pilothouse may constitute the remote stopping-system required by § 129.540 of this subchapter.
- (d) Each propulsion-control system, including one operable from the pilothouse, must be designed so that no one complete or partial failure of an easily replaceable component of the system allows the propulsion engine to overspeed or the pitch of the propeller to increase.

§ 130.130 Steering on OSVs of less than 100 gross tons.

- (a) Each OSV of less than 100 gross tons must have a steering system that complies with—
 - (1) Section 130.140 of this subpart; or
 - (2) This section.
- (b) Except as provided by paragraph (i) of this section, each vessel must have a main and an independent auxiliary means of steering.
- (c) The main means of steering (main steering gear) must be—
 - (1) Of adequate strength for, and capable of, steering the OSV at each service speed;
 - (2) Designed to operate at maximum astern speed without being damaged; and
 - (3) Capable of moving the rudder from 35 degrees on one side to 30 degrees on the other side in no more than 28 seconds with the vessel moving ahead at maximum service speed.
- (d) Control of the main steering gear must be available from the pilothouse,

including control of any necessary ancillary device (motor, pump, valve, or the like). If a power-driven main steering gear is used, a pilot light must be installed in the pilothouse to indicate operation of the power units.

(e) The auxiliary means of steering (auxiliary steering gear) must be—

- (1) Of adequate strength for steering the OSV at navigable speed;
- (2) Capable of steering the vessel at navigable speed; and
- (3) Controlled from a place that—
 - (i) Can communicate with the pilothouse; or
 - (ii) Enables the master to safely maneuver the vessel.

(f) The steering gear must be designed so that transfer from the main steering gear or its control to the auxiliary steering gear or its control can be achieved rapidly. Any tools or equipment necessary for transfer must be readily available. Instructions for transfer must be posted.

(g) Each vessel must have instantaneous protection against short circuit for electrical-power circuits and control circuits, the protection sized and located to comply with §§ 58.25–55 (d) and (e) of this chapter.

(h) A rudder-angle indicator independent of the control of the main steering gear must be installed at the steering-control station in the pilothouse.

(i) No auxiliary steering gear need be installed if—

- (1) The main steering gear, including power systems, is installed in duplicate; or
- (2) Multiple-screw propulsion—with independent control of propulsion from the pilothouse for each screw and with a means to restrain and center the rudder—is installed, and if that control is capable of steering the OSV.

(j) Each vessel with duplicate (parallel but cross-connected) power systems for the main steering gear by way of compliance with paragraph (i)(1) of this section may use one of the systems for other purposes if—

- (1) Control of the subordinate parallel system is located at the steering-control station in the pilothouse;

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(2) Full power is available to the main steering gear when the subordinate parallel system is not in operation;

(3) The subordinate parallel system can be isolated from the means of steering, and instructions on procedures for isolating it are posted; and

(4) The subordinate parallel system is materially equivalent to the steering system.

§ 130.140 Steering on OSVs of 100 or more gross tons.

(a) Each OSV of 100 or more gross tons must have a means of steering that meets the—

(1) Applicable requirements of subchapters F and J of this chapter; or

(2) Requirements for a hydraulic-helm steering-system in paragraph (b) of this section.

(b) Each hydraulic-helm steering-system must have the following:

(1) A main steering gear of adequate strength for, and capable of, steering the vessel at every service speed without being damaged at maximum astern speed.

(2) A hydraulic system with a maximum allowable working pressure of not more than 12,411 kPa (1,800 psi), dedicated to steering.

(3) Piping materials that comply with subchapter F of this chapter, and piping thickness of at least schedule 80.

(4) Each fore-and-aft run of piping located as far inboard as practicable.

(5) Rudder stops.

(6) Either—

(i) Two steering pumps in accordance with § 130.130(c)(3) of this part; or

(ii) A single hydraulic sump of the “cascading overflow” type with a centerline bulkhead open only at the top, if each half has enough capacity to operate the system.

(7) Control of the main steering gear from the pilothouse, including—

(i) Control from the helm;

(ii) Control of any necessary ancillary device (motor, pump, valve, or the like); and

(iii) Adequate visibility when going astern.

(8) Multiple-screw propulsion with independent control of propulsion from the pilothouse, complying with § 130.120

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of this part and being capable of steering the vessel.

(9) Dual hydraulic cylinders arranged so that either cylinder can be readily isolated, permitting the other cylinder to remain in service and move each rudder.

(10) The steering alarms and indicators required by § 58.25–25 of this chapter, located in the pilothouse.

(11) Instantaneous protection against short circuit for electrical power, and control circuits sized and located as required by §§ 58.25–55 (d) and (e) of this chapter.

(12) A rudder-angle indicator, at the steering-control station in the pilothouse, that is independent of the control of the main steering gear.

(13) Means to locally start and stop the steering pumps.

(14) Means to isolate any auxiliary means of steering so as not to impair the reliability and availability of the control required by paragraph (b)(7) of this section.

(15) Manual capability to center and steady the rudder if the vessel loses normal steering power.

(c) For compliance with paragraph (b) of this section, a common piping system for pumps, helm, and cylinders is acceptable.

Subpart B—Miscellaneous Equipment and Systems

§ 130.210 Radiotelegraph and radiotelephone.

Each vessel must comply with 47 CFR part 80 as applicable.

§ 130.220 Design of equipment for cooking and heating.

(a) Doors on each cooking appliance must be provided with heavy-duty hinges and locking-devices to prevent accidental opening in heavy weather.

(b) Each cooking appliance must be installed so as to prevent its movement in heavy weather.

(c) Each grill or similar cooking appliance must have means to collect grease or fat and to prevent its spillage onto wiring or the deck.

(d) On each cooking appliance, grab rails must be installed when determined by the cognizant OCMI to be necessary for safety.

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(e) On each cooking appliance, sea rails, with suitable barriers to prevent accidental movement of cooking pots, must be installed.

(f) Each heater must be constructed and installed so as to prevent the hanging from it of items such as towels and clothing.

§ 130.230 Protection from refrigerants.

(a) For each refrigeration system that exceeds 0.6 cubic meters (20 cubic feet) of storage capacity if using ammonia or other hazardous gas, or exceeds 28.3 cubic meters (1,000 cubic feet) of storage capacity if using a fluorocarbon, as a refrigerant, there must be available one pressure-demand, open-circuit, self-contained breathing apparatus, approved by the National Institute for Occupational Safety and Health (NIOSH) and having at a minimum a 30-minute air supply, and a full facepiece.

(b) Each self-contained breathing apparatus must be stowed convenient to, but outside, the space containing the refrigeration equipment.

(c) A complete recharge in the form of a spare charge must be carried for each self-contained breathing apparatus. The spare charge must be stowed with the equipment it is to reactivate.

(d) The self-contained breathing apparatus in a fireman's outfit, if fitted, complies with this section.

§ 130.240 Anchors and chains for OSVs of 100 or more gross tons.

(a) Each OSV of 100 or more gross tons must be fitted with anchors and chains meeting the applicable standards set by the ABS for classed vessels, including equipment, except as permitted by paragraphs (b) and (c) of this section.

(b) As well as the standards incorporated by paragraph (a) of this section, each vessel of under 61 meters (200 feet) in length and with an equipment number from the ABS of less than 150 may be equipped with either—

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

(2) Two anchors of one-half the tabular weight with the total length of anchor chain listed in the applicable

standard, if both anchors are ready for use at any time and if the windlass is capable of heaving in either anchor.

(c) Standards of classification societies other than the ABS may be used, upon approval of the Commandant.

§ 130.250 Mooring and towing equipment for OSVs of less than 100 gross tons.

Each OSV of less than 100 gross tons must be fitted with mooring and towing equipment meeting the applicable requirements for small passenger vessels in § 184.300 of this chapter.

Subpart C—Navigational Equipment

§ 130.310 Radar.

Each vessel of 100 or more gross tons must be fitted with a general marine radar in the pilothouse.

§ 130.320 Electronic position-fixing device.

Each vessel must be equipped with an electronic position-fixing device satisfactory for the area in which the vessel operates.

§ 130.330 Charts and nautical publications.

(a) Except as provided by paragraph (b) or (c) of this section, as appropriate for the intended voyage, each vessel must carry adequate and up-to-date—

(1) Charts of large enough scale to make safe navigation possible;

(2) U.S. Coast Pilot or similar publication;

(3) Coast Guard Light List;

(4) Tide Tables published by the National Ocean Service;

(5) Local Notice or Notices to Mariners; and

(6) Current Tables published by the National Ocean Service, or a river-current publication issued by the U.S. Army Corps of Engineers or by a river authority, or both.

(b) Any vessel may carry, instead of the complete publications listed in paragraph (a) of this section, extracts from them for areas it will transit.

(c) When operating in foreign waters, a vessel may carry an appropriate foreign equivalent of any item required by paragraph (a) of this section.

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§ 130.340 Compass.

Each vessel must be fitted with a compass suitable for the intended service of the vessel. Except aboard a vessel limited to daytime operation, the compass must be illuminated.

Subpart D—Automation of Unattended Machinery Spaces

§ 130.400 Applicability.

This subpart applies to each vessel of 100 or more gross tons where automated systems either replace specific personnel in the control and observation of the propulsion system and machinery spaces or reduce the level of crew associated with the vessel's engine department.

§ 130.410 General.

(a) Arrangements must be such that under any operating condition, including maneuvering, the safety of the vessel is equivalent to that of the same vessel with the machinery spaces fully tended and under direct manual supervision.

(b) Acceptance by the Coast Guard of automated systems to replace specific crew members or to reduce overall requirements for crew members depends upon the—

(1) Capabilities of the automated system;

(2) Combination of crew members, equipment, and systems necessary to ensure the safety of the vessel, personnel, and environment in each operating condition, including maneuvering; and

(3) Ability of the crew members to perform each operational evolution, including to cope with emergencies such as fire and failure of control or monitoring systems.

§ 130.420 Controls.

Each piece of machinery under automatic control must have an alternative manual means of control.

§ 130.430 Pilothouse control.

Each OSV must have, at the pilothouse, controls to start a fire pump, charge the fire main, and monitor the pressure in the fire main.

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§ 130.440 Communications system.

(a) Each OSV must have a communications system to immediately summon a crew member to the machinery space wherever one of the alarms required by § 130.460 of this subpart is activated.

(b) The communications system must be either—

(1) An alarm that—

(i) Is dedicated for this purpose;

(ii) Sounds in the crew accommodations and the normally manned spaces; and

(iii) Is operable from the pilothouse; or

(2) A telephone operated from the pilothouse that reaches the master's stateroom, engineer's stateroom, engine room, and crew accommodations that either—

(i) Is a sound-powered telephone; or

(ii) Gets its power from the emergency switchboard or from an independent battery continuously charged by its own charger.

§ 130.450 Machinery alarms.

(a) Each alarm required by § 130.460 of this subpart must be of the self-monitoring type that will both show visibly and sound audibly upon an opening or break in the sensing circuit.

(b) The visible alarm must show until it is manually acknowledged and the condition is corrected.

(c) The audible alarm must sound until it is manually silenced.

(d) No silenced alarm may prevent any other audible alarm from sounding.

(e) Each OSV must be provided with means for testing each visible and audible alarm.

(f) Each OSV must provide battery power for the alarm required by § 130.460(a)(8) of this subpart.

§ 130.460 Placement of machinery alarms.

(a) Visible and audible alarms must be installed at the pilothouse to indicate the following:

(1) Loss of power for propulsion control.

(2) Loss of power to the steering motor or for control of the main steering gear.

(3) Engine-room fire.

(4) High bilge-level.
 (5) Low lube-oil pressure for each main propulsion engine and each prime mover of a generator.

(6) For each main propulsion engine and each prime mover of a generator—
 (i) High lube-oil temperature; and
 (ii) High jacket-water temperature.

(7) For each reduction gear and each turbocharger with a pressurized oil system—

(i) Low lube-oil pressure; and
 (ii) High lube-oil temperature.
 (8) Loss of normal power for the alarms listed in paragraphs (a)(1) through (a)(7) of this section.

(b) Sensors for the high-bilge-level alarm required by paragraph (a)(4) of this section must be installed in—

(1) Each space below the deepest load waterline that contains pumps, motors, or electrical equipment; and

(2) The compartment that contains the rudder post.

(c) Centralized displays must be installed in the machinery spaces to allow rapid evaluation of each problem detected by the alarms required by paragraph (a) of this section. Equipment-mounted gauges or meters are acceptable for this purpose, if they are grouped at a central site.

§ 130.470 Fire alarms.

(a) Each fire detector and control unit must be of a type specifically approved by the Commandant (CG-521).

(b) No fire-alarm circuit for the engine room may contain a fire detector for any other space.

(c) The number and placement of fire detectors must be approved by the cognizant OCMI.

[CGD 82-004 and CGD 86-074, 62 FR 49337, Sept. 19, 1997, as amended by USCG-2009-0702, 74 FR 49235, Sept. 25, 2009]

§ 130.480 Test procedure and operations manual.

(a) A procedure for tests to be conducted on automated equipment by the operator and the Coast Guard must be submitted to comply with § 127.110 of this subchapter.

(b) The procedure for tests must—
 (1) Be in a sequential-checkoff format;

(2) Include the required alarms, controls, and communications; and

(3) Set forth details of the tests.

(c) Details of the tests must specify status of equipment, functions necessary to complete the tests, and expected results.

(d) No tests may simulate conditions by misadjustments, artificial signals, or improper wiring.

(e) A detailed operations manual that describes the operation and indicates the location of each system installed to comply with this part must be submitted to comply with § 127.110 of this subchapter.

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AUTHORITY: 33 U.S.C. 1321(j); 46 U.S.C. 3306, 6101, 10104; E.O. 12234, 3 CFR, 1980 Comp., p. 277; E.O. 12777, 3 CFR, 1991 Comp., p. 351; Department of Homeland Security Delegation No. 0170.1.

SOURCE: CGD 82–004 and CGD 86–074, 62 FR 49340, Sept. 19, 1997, unless otherwise noted.

Subpart A—Notice of Casualty and Records of Voyage

§ 131.110 Notice and records.

Each vessel must meet the requirements of part 4 of this chapter for reporting marine casualties and retaining voyage records.

Subpart B—Markings on Vessels

§ 131.210 Hulls.

The hull of each vessel must be marked as required by parts 67 and 69 of this chapter.

§ 131.220 Drafts.

(a) Each vessel must have the drafts of the vessel plainly and legibly marked upon the stem and upon the sternpost or rudderpost, or at any place at the stern of the vessel that may be necessary for easy observance. The bottom of each mark must indicate the draft.

(b) Each draft must be taken from the bottom of the keel to the surface of the water at the location of the marks.

(c) When, because of raked stem or cutaway skeg, the keel does not extend forward or aft to the draft markings, the datum line from which the draft is taken must be the line of the bottom of the keel projected forward or aft, as the case may be, to where the line meets that of the draft markings projected downward.

(d) When a skeg or other appendage extends below the line of the keel, the draft at the end of the vessel adjacent to that appendage must be measured to

a line tangent to the lowest part of the appendage and parallel to the line of the bottom of the keel.

(e) Drafts 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) Marks must be painted in a color contrasting with that of the hull.

(g) Where marks are obscured because of operational constraints or by protrusions, the vessel must be fitted with a reliable draft-indicating system from which the drafts at bow and stern can be determined.

§ 131.230 Loadlines and decklines.

Each vessel assigned a loadline must have loadline markings and deck-line markings permanently scribed or embossed as required by subchapter E of this chapter.

Subpart C—Preparations for Emergencies

§ 131.310 List of crew members and offshore workers.

(a) The master of each vessel shall keep a correct list containing the name of each person that embarks upon and disembarks from the vessel.

(b) The list required by paragraph (a) of this section must be prepared before the vessel's departure on a voyage, and deposited ashore—

(1) At the facility from which the crew members and offshore workers embarked;

(2) In a well-marked place at the vessel's normal berth; or

(3) With a representative of the owner or managing operator of the vessel.

§ 131.320 Safety orientation for offshore workers.

(a) Before a vessel gets under way on a voyage, the master shall ensure that suitable public announcements are made informing each offshore worker of—

(1) In general terms, emergency and evacuation procedures;

(2) Locations of emergency exits and of embarkation areas for survival craft;

(3) Locations of stowage of lifejackets and immersion suits;

(4) With demonstration, proper method or methods of donning and adjusting lifejackets and immersion suits of the type or types carried on the vessel;

(5) Locations of the instruction placards for lifejackets and other lifesaving devices;

(6) Explanation that each offshore worker shall don an immersion suit and a lifejacket when the master determines that hazardous conditions do or might exist but that offshore workers may don lifejackets whenever they feel it necessary;

(7) Which hazardous conditions might require the donning of lifejackets and immersion suits;

(8) Types and locations of any other lifesaving device carried on the vessel;

(9) Locations and contents of the "Emergency Instructions" required by § 131.330;

(10) Survival craft to which assigned;

(11) Any hazardous materials on the vessel; and

(12) Any conditions or circumstances that constitute a risk to safety.

(b) The master of each vessel shall ensure that each offshore worker boarding the vessel on a voyage after the initial public announcement has been made, as required by paragraph (a) of this section, also hears the information in paragraph (a) of this section.

§ 131.330 Emergency instructions.

(a) Except as otherwise provided by this section, the master of each vessel shall prepare and post durable emergency-instruction placards in conspicuous locations accessible to the crew members and offshore workers.

(b) The instruction placards must contain the recommended "Emergency Instructions" listed in § 131.340 that, in the judgment of the cognizant OCMI, apply. The placards must be further designed to address the equipment, arrangement, and operation peculiar to each vessel.

§ 131.340 Recommended placard for emergency instructions.

The following are the recommended format and content of the placard for emergency instructions:

EMERGENCY INSTRUCTIONS

(a) *Rough weather at sea, crossing of hazardous bars, or flooding.* (1) Close each watertight and weathertight door, hatch, and air-port to prevent taking water aboard or further flooding in the vessel.

(2) Keep bilges dry to prevent loss of stability from water in bilges. Use power-driven bilge pump, hand pump, and buckets to dewater.

(3) Align fire pumps to serve as bilge pumps if possible.

(4) Check, for leakage, each intake and discharge line that penetrates the hull.

(5) Offshore workers remain seated and evenly distributed.

(6) Offshore workers don immersion suits (if required aboard) or lifejackets if the going becomes very rough, if the vessel is about to cross a hazardous bar, if flooding begins, or when ordered to by the master.

(7) Never abandon the vessel unless actually forced to, or ordered to by the master.

(8) Prepare survival craft—life floats, (inflatable) rafts, (inflatable) buoyant apparatus, and boats—for launching.

(b) *“Man overboard”.* (1) Throw a ring buoy into the water as close to the person overboard as possible.

(2) Post a lookout to keep the person overboard in sight.

(3) Launch the rescue boat and maneuver it to pick up the person overboard, or maneuver the vessel to pick up the person.

(4) Have a crew member put on an immersion suit or lifejacket, have a safety line made fast to the crew member, and have the crew member stand by to jump into the water to assist the person overboard if necessary.

(5) If the person overboard is not immediately located—

(i) Notify other vessels in the vicinity, and the Coast Guard; and

(ii) Continue searching until released by the Coast Guard.

(c) *Fire.* (1) Cut off air to the fire: close hatches, ports, doors, manual ventilators, and the like and shut off the ventilation system.

(2) De-energize electrical systems supplying the affected compartment.

(3) Immediately use a portable fire extinguisher aimed at the base of the

flames. Never use water on electrical fires.

(4) If the fire is in machinery spaces, shut off the fuel supply and ventilation system and activate any fixed extinguishing-system.

(5) Maneuver the vessel to minimize the effect of wind on the fire.

(6) If unable to control the fire, notify other vessels in the vicinity, and the Coast Guard.

(7) Move offshore workers away from fire; have them don lifejackets and, if necessary, prepare to abandon the vessel.

§ 131.350 Station bill.

(a) The master of each vessel shall post a station bill if the vessel's Certificate of Inspection requires more than four crew members, including the master.

(b) The station bill must be posted in the pilothouse and in conspicuous places in crew members' and offshore workers' accommodations.

(c) The station bill must set forth the special duties and duty stations of each crew member for various emergencies. The duties must, as far as possible, be comparable to and compatible with the regular work of the member. The duties must include at least the following and should comprise any other duties necessary for the proper handling of a particular emergency:

(1) The closing of hatches, air-ports, watertight doors, vents, and scuppers, and of intake valves and discharge lines that penetrate the hull; the stopping of fans and ventilating systems; and the operating of safety equipment.

(2) The preparing and launching of survival craft and rescue boats.

(3) The extinguishing of fire.

(4) The mustering of offshore workers, which includes—

(i) Assembling them and seeing that they are properly dressed and have donned their immersion suits and lifejackets; and

(ii) Directing them to their appointed stations.

§ 131.360 Responsibilities of licensed or certificated individuals.

Nothing in the emergency instructions or in any station bill required by this subpart exempts any licensed or

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certificated individual from the exercise of good judgment in an emergency.

Subpart D—Sufficiency and Supervision of Crew of Survival Craft

§ 131.410 Certificate of proficiency.

A merchant mariner credential or merchant mariner's document with an endorsement of lifeboatman or another inclusive rating under part 12 of this title is evidence of training in survival craft and serves as a certificate of proficiency. For this subpart, a "certificated" person is a person holding a merchant mariner credential or merchant mariner's document with such an endorsement.

[CGD 82-004 and CGD 86-074, 62 FR 49340, Sept. 19, 1997, as amended by USCG-2006-24371, 74 FR 11266, Mar. 16, 2009]

§ 131.420 Manning and supervision.

(a) There must be enough trained persons aboard each survival craft to muster and assist untrained persons.

(b) Except as permitted by paragraph (c)(2) of this section, there must be enough deck officers, able seamen, or other certificated persons aboard each survival craft to manage the launching and handling of the survival craft.

(c) One person must be placed in charge of each survival craft to be used.

(1) Except as permitted by paragraph (c)(2) of this section, the person in command must be a deck officer, able seaman, or other certificated person.

(2) Considering the nature of the voyage, the number of persons permitted aboard, and the characteristics of the vessel, including gross tonnage, the cognizant OCMI may permit persons practiced in the handling of liferafts to be placed in charge of liferafts instead of persons required under paragraph (c)(1) of this section.

(3) A deck officer, able seaman, or other certificated person shall serve as second-in-command for each lifeboat either—

(i) Carried on a vessel in ocean service; or

(ii) Permitted to carry more than 40 persons.

(d) The person in charge and the second-in-command of each survival craft shall have a list of crew members and offshore workers assigned to the craft and shall see that the crew members are acquainted with their duties.

(e) Each motorized survival craft must have assigned a person capable of operating the engine and carrying out minor adjustments.

(f) The master shall ensure that the persons required under paragraphs (a), (b), and (c) of this section are equitably distributed among the vessel's survival crafts.

Subpart E—Tests, Drills, and Inspections

§ 131.505 Steering gear, whistle, and means of communication.

(a) On each vessel expected to be away from shore for more than 48 hours, the master shall examine and test the steering gear, the whistle, and the means of communication between the pilothouse and the engine room 12 or fewer hours before departure. On every other vessel, the master shall do the same at least once a week.

(b) The date of each test and examination and the condition of the equipment must be noted in the vessel's logbook.

§ 131.510 Draft and loadline markings.

(a) The master of each vessel on an ocean or coastwise voyage shall enter in the vessel's logbook the drafts of the vessel, forward and aft, when leaving port.

(b) The master of each vessel subject to the requirements of subchapter E of this chapter shall, upon departure from port on an ocean or coastwise voyage, enter in the vessel's logbook a statement of the position of the loadline markings, port and starboard, relative to the surface of the water in which the vessel is then floating.

(c) If the master, when recording drafts, compensates for the density of the water in which the vessel is floating, he or she shall note this density in the vessel's logbook.

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§ 131.513 Verification of compliance with applicable stability requirements.

(a) After loading but before departure, and at other times necessary to assure the safety of the vessel, the master shall verify that the vessel complies with requirements in its trim-and-stability book, stability letter, Certificate of Inspection, and Loadline Certificate, whichever apply, and then enter a statement of the verification in the log book. The vessel may not leave port until it is in compliance with these requirements.

(b) When determining compliance with applicable stability requirements, the master shall ascertain the vessel's draft, trim, and stability as necessary; and any stability calculations made in support of the determination must remain aboard the vessel for the duration of the voyage.

§ 131.515 Periodic sanitary inspections.

(a) The master shall make periodic inspections of the quarters, toilet and washing spaces, serving pantries, galleys, and the like, to ensure that those spaces are maintained in a sanitary condition.

(b) The master shall enter in the vessel's logbook the results of these inspections.

§ 131.520 Hatches and other openings.

Before any vessel leaves protected waters, the master shall ensure that the vessel's exposed cargo hatches and other openings in the hull are closed; made properly watertight by the use of tarpaulins, gaskets, or similar devices; and properly secured for sea.

§ 131.525 Emergency lighting and power.

(a) The master of each vessel shall ensure that the emergency lighting and power systems are tested at least once each week that the vessel is operated, to verify that they work.

(b) The master shall ensure that emergency generators driven by internal-combustion engines run under load for at least 2 hours at least once each month that the vessel is operated.

(c) The master shall ensure that storage batteries driving fitted systems for

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emergency lighting and power are tested at least once each 6 months that the vessel is operated, to demonstrate the ability of the batteries to supply the emergency loads for the period specified by Table 112.05–5(a) of this chapter for cargo vessels.

(d) The date of each test and the condition and performance of the apparatus must be noted in the vessel's logbook.

§ 131.530 Abandon-ship training and drills.

(a) Material for abandon-ship training must be aboard each vessel. The material must consist of a manual of one or more volumes, or audiovisual training aids, or both.

(1) The material must contain instructions and information about the lifesaving appliances aboard the vessel and about the best methods of survival. Any manual must be written in easily understood terms, illustrated wherever possible.

(2) If a manual is used, there must be a copy in each messroom and recreation room for crew members or in each stateroom for them. If audiovisual aids are used, they must be incorporated in the training sessions aboard under paragraph (d) of this section.

(3) The material must explain the—

(i) Method of donning immersion suits and lifejackets carried aboard;

(ii) Mustering at assigned stations;

(iii) Proper boarding, launching, and clearing of survival craft and rescue boats;

(iv) Method of launching survival craft by people within them;

(v) Method of releasing survival craft from launching-appliances;

(vi) Use of devices for protecting survival craft in launching-areas, where appropriate;

(vii) Illumination of launching-areas;

(viii) Use of each item of survival equipment;

(ix) Instructions for emergency repair of lifesaving appliances;

(x) Use of radio lifesaving-appliances, with illustrations;

(xi) Use of sea anchors;

(xii) Use of engine and accessories, where appropriate;

(xiii) Recovery of survival craft and rescue boats, including stowage and securing;

(xiv) Hazards of exposure and need for warm clothing;

(xv) Best use of survival craft for survival; and

(xvi) Methods of retrieving personnel, including use of helicopter-mounted rescue gear (slings, baskets, stretchers) and vessel's line-throwing apparatus.

(b) An abandon-ship drill must be held on each vessel in alternate weeks. If none can be held during the appointed week, because of bad weather or other unavoidable constraint, one must be held at the first opportunity afterward. If the crew changes more than once in any 2 weeks, one must be held as soon after the arrival of each crew as practicable.

(1) Any crew member excused from an abandon-ship drill must participate in the next one, so that each member participates in at least one each month. Unless more than 25 percent of the members have participated in one on that particular vessel in the previous month, one must be held before the vessel leaves port if reasonable and practicable; but, unless the Commandant (CG-543) accepts alternative arrangements as at least equivalent, one must be held not later than 24 hours after the vessel leaves port in any event.

(2)(i) On a voyage likely to take more than 24 hours to complete, a muster of offshore workers must be held on departure. The master shall ensure that each worker is assigned to a survival craft and is directed to its location. Each person in charge of such a craft shall maintain a list of workers assigned to the craft.

(ii) On a voyage likely to take 24 hours or less to complete, the master shall call the attention of each offshore worker to the emergency instructions required by § 131.330.

(3) Each abandon-ship drill must include—

(i) Summoning of crew members and offshore workers to survival craft with the general alarm;

(ii) Simulation of an abandon-ship emergency that varies from drill to drill;

(iii) Reporting of crew members and offshore workers to survival craft, and preparing for, and demonstrating the duties assigned under the procedure described in the station bill for, the particular abandon-ship emergency being simulated;

(iv) Checking to see that crew members and offshore workers are suitably dressed;

(v) Checking to see that immersion suits and lifejackets are correctly donned;

(vi) Lowering of at least one lifeboat (far enough that the davit head has completed its travel and the fall wire of the lifeboat has begun to pay out) or, if no lifeboats are required, lowering of one rescue boat, after any necessary preparation for launching;

(vii) Starting and operating of the engine of the lifeboat or rescue boat; and

(viii) Operation of davits used for launching liferafts.

(4) As far as practicable, at successive drills different lifeboats must be lowered to meet the requirements of paragraph (b)(3)(vi) of this section.

(5) As far as practicable, each abandon-ship drill must be conducted as if there were an actual emergency.

(6) Each lifeboat must be launched with its assigned crew aboard during an abandon-ship drill, and be maneuvered in the water, at least once each 3 months that the vessel is operated.

(7) Each rescue boat must be launched with its assigned crew aboard and be maneuvered in the water—

(i) Once each month that the vessel is operated, if reasonable and practicable; but,

(ii) In any event, at least once each 3 months that the vessel is operated.

(8) If drills for launching lifeboats and rescue boats are carried out with the vessel making headway, the drills must, because of the danger involved, be practiced only in waters where the drills are safe, under the supervision of an officer experienced in such drills.

(9) At least one abandon-ship drill each 3 months must be held at night, unless the master determines it unsafe.

(10) Emergency lighting for mustering and abandonment must be tested at each abandon-ship drill.

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(c) The master of each vessel carrying immersion suits shall ensure that—

(1) Each crew member either—

(i) Wears an immersion suit in at least one abandon-ship drill a month unless it is impracticable because of warm weather; or

(ii) Participates in at least one immersion-suit drill a month that includes donning an immersion suit and being instructed in its use;

(2) In each abandon-ship drill, each offshore worker aboard is instructed in the use of immersion suits; and

(3) Each offshore worker is told at the beginning of the voyage where immersion suits are stowed aboard and is encouraged to read the instructions for donning and using the suits.

(d) Each crew member aboard the vessel must be given training in the use of lifesaving appliances and in the duties assigned by the station bill.

(1) Except as provided by paragraph (d)(2) of this section, training aboard in the use of the vessel's lifesaving appliances, including equipment on survival craft, must be given to each crew member as soon as possible but not later than 2 weeks after the member joins the vessel.

(2) If a crew member is on a regularly scheduled rotating assignment to a vessel, training aboard in the use of the vessel's lifesaving appliances, including equipment on survival craft, must be given to the member not later than 2 weeks after the member first joins the vessel.

(3) Each crew member must be instructed in the use of the vessel's lifesaving equipment and appliances and in survival at sea during alternate weeks, normally in the weeks when abandon-ship drills are not held. If individual instructional sessions cover different parts of the vessel's lifesaving system, they must cover each part of the vessel's lifesaving equipment and appliances each 2 months. Each member must be instructed in at least—

(i) Operation and use of the vessel's inflatable liferafts;

(ii) Problems of hypothermia, first aid for hypothermia, and other appropriate procedures; and

(iii) Special procedures necessary for use of the vessel's lifesaving equipment and appliances in heavy weather.

(4) Training in the use of davit-launched inflatable liferafts must take place at intervals of not more than 4 months on each vessel with such liferafts. Whenever practicable this must include the inflation and lowering of a liferaft. If this liferaft is a special one intended for training only, and is not part of the vessel's lifesaving system, it must be conspicuously so marked.

(e) Dates when musters are held, details of abandon-ship drills, drills on other lifesaving equipment and appliances, and training aboard must be entered in the vessel's official logbook. Each logbook entry must include the following, as applicable:

(1) Time and date.

(2) Length of drill or training session.

(3) Identification of survival craft used in drills.

(4) Subject of training session.

(5) Statement on the condition of the equipment used.

(6) Unless a full muster, drill, or training session is held at the appointed time, the circumstances and the extent of the muster, drill, or training session held.

[CGD 82-004 and CGD 86-074, 62 FR 49340, Sept. 19, 1997, as amended by USCG-2009-0702, 74 FR 49235, Sept. 25, 2009]

§ 131.535 Firefighting training and drills.

(a) A fire drill must be held on each vessel, normally on alternate weeks. It must not be held as part of the abandon-ship drill, nor immediately before or after the abandon-ship drill. If none can be held on schedule, because of bad weather or other unavoidable constraint, one must be held at the next opportunity.

(b) Any crew member excused from a fire drill must participate in the next one, so that each member participates in at least one each month. Unless more than 25 percent of the members have participated in one on that particular vessel in the previous month, one must be held before the vessel leaves port if reasonable and practicable; but, unless the Commandant (CG-543) accepts alternative arrangements as at least equivalent, one must

be held not later than 24 hours after the vessel leaves port in any event.

(c) Each fire drill must include—

(1) Summoning of crew members and offshore workers to their stations with the general alarm;

(2) Simulation of a fire emergency that varies from drill to drill;

(3) Reporting of crew members and offshore workers to stations, and preparing for, and demonstrating of the duties assigned under the procedure described in the station bill for, the particular fire emergency being simulated;

(4) Starting of fire pumps and use of a sufficient number of outlets to determine that the system is working properly;

(5) Bringing out each breathing apparatus and other item of rescue and safety equipment from the emergency-equipment lockers, and demonstrating of the use of each item by the person or persons that will make use of it;

(6) Operation of each watertight door;

(7) Operation of each self-closing fire door;

(8) Closing of each fire door and each door within the fire boundary; and

(9) Closing of each ventilation closure of each space protected by a fixed fire-extinguishing system.

(d) Each fire drill must, as far as practicable, be conducted as if there were an actual emergency.

(e) The dates when fire drills are held, and details of training in fire fighting and of fire drills, must be entered in the vessel's official logbook. Each logbook entry must include the following, as applicable:

(1) Time and date.

(2) Length of drill or training session.

(3) Number and lengths of hose used.

(4) Subject of training session.

(5) Statement on the condition of the equipment used.

(6) Unless a full drill or training session is held at the appointed time, the circumstances and the extent of the drill or training session held.

[CGD 82-004 and CGD 86-074, 62 FR 49340, Sept. 19, 1997, as amended by USCG-2009-0702, 74 FR 49235, Sept. 25, 2009]

§ 131.540 Operational readiness.

(a) Except as provided by § 131.545(e) of this subpart, each lifesaving appliance and each item of equipment for a

lifeboat, liferaft, survival craft, rescue boat, life float, or buoyant apparatus must be in good working order and ready for immediate use before the vessel leaves port and at any time when the vessel is away from port.

(b) Each deck where a lifeboat, liferaft, survival craft, rescue boat, life float, or buoyant apparatus is stowed, launched, or boarded must be kept clear of obstructions that would interfere with the breaking out, launching, or boarding of the lifesaving appliance.

§ 131.545 Maintenance in general.

(a) For each lifesaving appliance, the manufacturer's instructions for maintenance of the appliances aboard must be aboard and must include the following:

(1) Checklists for use in the inspections required by § 131.565(a) of this subpart.

(2) Instructions for maintenance and repair.

(3) A schedule of periodic maintenance.

(4) A diagram of lubrication points with the recommended lubricants.

(5) A list of replaceable parts.

(6) A list of sources of spare parts.

(7) A log for records of inspections, maintenance, and repair.

(b) The master shall ensure that maintenance is carried out to comply with the instructions required by paragraph (a) of this section.

(c) For lifesaving appliances constructed on or before July 1, 1986, paragraph (a) of this section need be complied with only to the extent that appliances' manufacturers' instructions are available.

(d) The cognizant OCMI may accept, instead of the instructions required by paragraph (a) of this section, a program for planned shipboard maintenance that includes the items listed in that paragraph.

(e) If lifeboats and rigid liferafts are maintained and repaired on the vessel while the vessel is under way, there must be enough lifeboats and liferafts available for use on the vessel to accommodate each person aboard the vessel.

(f) Except in an emergency, no extensive repairs or alterations may be made

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to any lifesaving appliance without advance notice to the cognizant OCMI. As far as possible, each repair or alteration must be made to comply with the requirements for the appliance in subchapter Q of this chapter. This OCMI may require each appliance that has been extensively repaired or in any way altered to undergo each pertinent test in subchapter Q of this chapter.

(g) The master shall report each emergency repair or alteration to a lifesaving appliance, as soon as practicable, either to the OCMI in the next port in the United States where the vessel calls or, if the vessel does not regularly call at ports in the United States, to the OCMI responsible for the next foreign port where the vessel calls.

(h) No lifeboat or rigid liferaft may be repaired or reconditioned for use on a vessel other than the one it was originally built for, unless specifically permitted by the cognizant OCMI. The lifeboat or rigid liferaft must be so repaired or reconditioned under the supervision of this OCMI, unless he or she specifically allows otherwise.

§ 131.550 Maintenance of falls.

(a) Each fall used with a launching appliance must be turned end for end at intervals of not more than 30 months.

(b) Each fall used with a launching appliance must be renewed either when necessary because of deterioration or after the passage of not more than 5 years, whichever occurs earlier.

(c) Each fall used with a launching appliance must have a corrosion-resistant tag permanently marked with—

(1) The date the new fall was installed; and

(2) The last date, if any, the fall was turned end for end.

§ 131.555 Spare parts and repair equipment.

Spare parts and repair equipment must be provided for each lifesaving appliance and component that either is subject to excessive wear or consumption or needs to be replaced regularly. These parts and equipment must be kept aboard the OSV, except that, if the vessel operates daily out of the

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same shore base, they may be kept at that base.

§ 131.560 Weekly tests and inspections.

The following tests and inspections must be carried out weekly:

(a) Each lifesaving appliance and launching appliance must be visually inspected to ensure that it is ready for use.

(b) Each engine of a lifeboat or a rescue boat must be run ahead and astern for not less than 3 minutes, unless the ambient temperature is below the minimal temperature required for starting the engine.

(c) The general alarm system must be activated.

(d) Each battery for starting the engine of a lifeboat or a rescue boat, or for energizing a searchlight, a fixed installation of a radio in a lifeboat, or a portable radio, must be brought up to full charge at least once a week if the battery is—

(1) Of a type that requires recharging; and

(2) Not connected to a device that keeps it continuously charged.

(e) The transmitter of each fixed installation of a radio in a lifeboat and that of each portable radio must be tried out at least once a week with a dummy antenna load.

§ 131.565 Monthly tests and inspections.

(a) Each lifesaving appliance, including lifeboat equipment, must be inspected monthly against the checklist required by § 131.545(a)(1) of this subpart to ensure that it is aboard and in good order. A report of the inspection, including a statement on the condition of the appliance, must be entered in the vessel's logbook.

(b) Each Emergency Position Indicating Radio Beacon (EPIRB) and each Search and Rescue Transponder (SART), other than an EPIRB or SART in an inflatable liferaft, must be tested monthly. The EPIRB must be tested using the integrated test circuit and the output indicator (test button) to determine that it works.

§ 131.570 Quarterly inspections.

(a) Each apparatus that controls a lifeboat winch, including motor controllers, emergency switches, master switches, and limit switches, must be inspected once each 3 months.

(b) The inspection must involve the removal of drain plugs and the opening of drain valves to ensure that enclosures are free of water.

(c) The date of the inspection required by this section and the condition of the equipment must be entered in the vessel's logbook.

§ 131.575 Yearly inspections and repair.

(a) Each lifeboat, rescue boat, rigid liferaft, buoyant apparatus, and life float must be stripped, cleaned, and thoroughly inspected and repaired as needed at least once a year. This procedure includes emptying and cleaning each fuel tank and refilling it with fresh fuel.

(b) Each davit, winch, fall, and other launching-appliance must be thoroughly inspected at least once a year, and repaired as needed.

(c) Each item of survival equipment with an expiration date must be replaced during the annual inspection and repair if this date has passed.

(d) Each battery used in an item of survival equipment and clearly marked with an expiration date must be replaced during the annual inspection and repair if this date has passed.

(e) Except a storage battery used in a lifeboat or in a rescue boat, each battery used in an item of survival equipment and not clearly marked with an expiration date must be replaced during the annual inspection and repair.

(f) Compliance with the requirements of this section does not relieve the master or person in charge of the duty of compliance with requirements in § 131.540(a) of this subpart to keep the equipment ready for immediate use when the vessel is under way.

§ 131.580 Servicing of inflatable liferafts, inflatable lifejackets, inflatable buoyant apparatus, and inflated rescue boats.

(a) An inflatable liferaft or inflatable buoyant apparatus must be serviced at a facility specifically approved by the

Commandant for the particular brand, and in accordance with servicing procedures meeting the requirements of part 160, subpart 160.151, of this chapter—

(1) No later than the month and year on its servicing sticker affixed under 46 CFR 160.151–57(n), except that servicing may be delayed until the next scheduled inspection of the vessel, provided that the delay does not exceed 5 months; and

(2) Whenever the container is damaged or the container straps or seals are broken.

(b) Each inflatable lifejacket and hybrid inflatable lifejacket or work vest must be serviced:

(1) Within 12 months of its initial packing; and

(2) Within 12 months of each subsequent servicing, except that servicing may be delayed until the next scheduled inspection of the OSV, provided that the delay does not exceed 5 months.

(c) Each inflatable lifejacket must be serviced in compliance with subpart 160.176 of this chapter.

(d) Each hybrid inflatable lifejacket or work vest must be serviced in accordance with the manual provided under § 160.077–29 of this chapter.

(e) Repair and maintenance of inflatable rescue boats must follow the manufacturers' instructions. Each repair, except an emergency repair made aboard the vessel, must be made at a servicing facility approved by the Commandant (CG–521).

[CGD 82–004 and CGD 86–074, 62 FR 49340, Sept. 19, 1997, as amended by USCG–2002–11118, 67 FR 58541, Sept. 17, 2002; USCG–2009–0702, 74 FR 49235, Sept. 25, 2009]

§ 131.585 Periodic servicing of hydrostatic-release units.

(a) Except a disposable hydrostatic-release unit with an expiration date, each hydrostatic-release unit must be serviced—

(1) Within 12 months of its manufacture and within 12 months of each subsequent servicing, except when a servicing due after 12 months is delayed not more than 5 months until the next scheduled inspection of the vessel; and

(2) In compliance with subpart 160.062 of this chapter.

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(b) The springs of each spring-tensioned gripe used with a hydrostatic-release unit must be renewed when the unit is serviced and tested.

§ 131.590 Firefighting equipment.

(a) The master shall ensure that the vessel's required firefighting equipment is on board in the prescribed location and always ready for use, other than when the equipment is being serviced.

(b) The master shall, at least once each 12 months, ensure the performance of the tests and inspections of each portable fire extinguisher, semiportable fire extinguisher, and fixed fire-extinguishing system aboard described by Table 132.350 of this subchapter.

(c) The master shall keep records of these tests and inspections, showing the dates of their performance, the number or other identification of each unit undergoing them, and the name of the person or company conducting them. The records must be made available to the marine inspector upon request and must be kept for the period of validity of the vessel's current Certificate of Inspection.

(d) The conducting of tests and inspections required by this section does not relieve the master of his or her responsibility to maintain the prescribed firefighting equipment in working order for use at any time when the vessel is under way.

Subpart F—Logs

§ 131.610 Logbooks and records.

(a) Each OSV must by statute, or by regulations in this subchapter, have certain logbooks or records. The master shall make all entries required by statute, or by regulations in this subchapter.

(b) 46 U.S.C. 11301 states that a vessel of the United States, except one on a voyage from a port in the United States to a port in Canada, shall have an official logbook if the vessel is—

(1) On a voyage from a port in the United States to a foreign port; or

(2) Of at least 100 gross tons and on a voyage between a port in the United States on the Atlantic Ocean and one on the Pacific Ocean.

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(c) The Coast Guard gratuitously furnishes to masters of vessels of the United States the official logbook as Form CG-706B or CG-706C, depending upon the number of persons employed as crew. The first several pages of this logbook list various acts of Congress governing logbooks and the entries required in them.

(d) When a voyage is completed, or after a specified time has elapsed, the master shall file the official logbook containing required entries with the OCMI at or nearest the port where the vessel may be.

(e) Unless an official logbook is required, the owner, operator, or master shall supply an alternative log or record for making entries required by law, including regulations in this subchapter. This log or record need not be filed with this OCMI, but must be kept available for review by a marine inspector for a year after the date that the latest entry concerns.

§ 131.620 Matters that must be logged.

The following matters must be entered in each vessel's logbook:

(a) Safety Orientation for Offshore Workers. As held. See § 131.320.

(b) Tests and inspection of Steering Gear, Whistle, and Means of Communication. Before departure. See § 131.505.

(c) Draft and Loadline Markings. Before leaving port. Ocean and coastwise voyages only. See § 131.510.

(d) Verification of Compliance with Applicable Stability Requirements. See § 131.513.

(e) Periodic Sanitary Inspections. After periodic sanitary inspections made by the master. See § 131.515.

(f) Hatches and Other Openings. Each opening and closing, or departure from port without closing (except by vessels on protected waters). See § 131.520.

(g) Tests of Emergency Lighting and Power. Weekly, monthly, and twice-yearly. See § 131.525.

(h) Abandon-Ship Training and Drills, and Firefighting Training and Drills. As held. See §§ 131.530 and 131.535.

(i) Inspection of Lifeboat Winches. Once each 3 months. See § 131.570.

§ 131.630 Entries in official logbooks.

On each vessel required to have an Official Logbook, the items required by 46 U.S.C. 11301, as well as the items required by § 131.620, must be entered in the logbook.

Subpart G—Work Vests**§ 131.710 Approved work vests.**

Each buoyant work vest carried aboard must be approved under subpart 160.053 of this chapter or, as a commercial hybrid personal flotation device, under subpart 160.077 of this chapter.

§ 131.720 Use.

(a) An approved buoyant work vest is an item of safety apparel and may be carried aboard for wear by a crew member when working near or over the water.

(b) The vest may not count towards the vessel's complement of lifejackets.

(c) The vest may not be worn instead of a lifejacket during a drill.

§ 131.730 Shipboard stowage.

The master shall ensure that no work vest is stowed where any lifejacket is stowed.

§ 131.740 Shipboard inspections.

Each buoyant work vest must be subject to examination by a marine inspector, to determine its serviceability. If found serviceable, it may continue in service; but no buoyant work vest is stamped as inspected. If not found serviceable, and if determined irreparable by the inspector, a buoyant work vest must be destroyed in the presence of the inspector.

Subpart H—Markings for Fire Equipment and Emergency Equipment**§ 131.800 General.**

(a) This section prescribes markings necessary for the guidance of persons aboard in case of an emergency. The markings may be modified or omitted if they are unnecessary, because either the vessel is small or particular circumstances warrant, and if the cognizant OCMI approves.

(b) Each stateroom notice, directional sign, and the like must be printed in English and in other languages appropriate to the service of the vessel.

(c) Where this subpart specifies red letters, letters of a contrasting color on a red background are acceptable.

§ 131.805 General alarm bell, switch.

The switch in the pilothouse that activates the general alarm bell must be clearly and permanently identified either by letters on a metal plate or with a sign in red letters on a suitable background that state the following: "GENERAL ALARM."

§ 131.810 General alarm bell.

Each general alarm bell must be identified by red letters at least 13 millimeters (½-inch) high that state the following: "GENERAL ALARM—WHEN BELL RINGS GO TO YOUR STATION."

§ 131.815 Alarm for fixed gaseous fire-extinguishing system.

Each alarm for a fixed gaseous fire-extinguishing system must be conspicuously identified, using the following statement: "WHEN ALARM SOUNDS, LEAVE AT ONCE: [CARBON DIOXIDE] [HALON] BEING RELEASED."

§ 131.820 Branch lines of fire-extinguishing system.

The valves of each branch line in the fire extinguishing system must be plainly and permanently marked, indicating the spaces served.

§ 131.825 Controls of fire-extinguishing system.

Each control cabinet or space containing a valve or manifold for a fire extinguishing system must be distinctly marked in conspicuous red letters at least 50 millimeters (2 inches) high that state the following: "FIRE APPARATUS FOR [CARBON DIOXIDE] [HALON]".

§ 131.830 Fire-hose stations.

Each fire station must be identified in red letters and figures at least 50 millimeters (2 inches) high that state the following: "FIRE STATION #1," "* * * 2," "* * * 3," and so on. Where

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the hose is not so stowed in the open or behind glass as to be readily seen, this identification must be so placed as to be readily seen from a distance.

§ 131.835 Portable fire extinguishers.

(a) Except as provided by paragraph (b) of this section, each portable fire extinguisher must be marked with a number, and the site of its stowage must be marked with a corresponding number at least 13 millimeters ($\frac{1}{2}$ -inch) high.

(b) If only one type and size of portable fire extinguisher is carried, the number may be omitted.

§ 131.840 Emergency lighting.

Emergency lighting must be marked with a letter "E" at least 13 millimeters ($\frac{1}{2}$ -inch) high.

§ 131.845 Instructions for shift of steering gear.

(a) Instructions, including diagrams, for a shift of steering gear and for a shift to the alternative steering stations must be on water-resistant material and posted at each steering station and in the steering-engine room, relating, in order, the different steps to take in either shift.

(b) The instructions must indicate each clutch or pin to be "in" or "out" and each valve or switch to be "open" or "closed" in a shift to any means of steering for which the vessel is equipped.

(c) The instructions must specify that each steering wheel or lever, and each rudder, must be amidships before any shift of steering gear or steering stations.

(d) Each clutch, gear, wheel, lever, valve, or switch used during any shift of steering gear or steering stations must be numbered or lettered on a metal plate or painted so that the numbers or letters are recognizable at a reasonable distance.

§ 131.850 Rudder orders.

At each steering station there must be installed a suitable notice on the wheel or lever, or in some other place directly in the helmsman's line of sight, to indicate the direction in which to turn the wheel or lever for "right rudder" and for "left rudder."

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§ 131.855 Lifeboats and rescue boats.

(a) The following must be plainly marked or painted on each side of the bow of each lifeboat and rescue boat in block capital letters and numbers:

(1) The name of the vessel.

(2) The number of the boat. (The boats on each side of the vessel must be numbered from forward to aft. If there are boats on both sides of the vessel, the odd numbers must be on the starboard side.)

(3) For each vessel in ocean service, the name of the port whose marking on the stern is required by § 67.123 of this chapter.

(b) The following must be plainly marked or painted on each side of the bow of each lifeboat and rescue boat in block capital letters and numbers:

(1) The length and beam of the boat.

(2) The number of persons the boat will hold. This number must—

(i) Be the number of persons the boat is equipped for; and

(ii) Not be greater than the number of persons the boat is approved for, as shown on its nameplate.

(c) The following must be plainly marked or painted on each lifeboat and rescue boat, visible from above the boat:

(1) The number of the boat.

(2) The name of the vessel.

(d) Each lifeboat and rescue boat must be marked with Type II retro-reflective material approved under subpart 164.018 of this chapter. The arrangement of the retro-reflective material must comply with IMO Resolution A.658(16).

§ 131.860 Rigid liferafts.

(a) The following must be plainly marked or painted, near one entrance of each rigid liferaft:

(1) The name of the vessel.

(2) For each vessel in ocean service, the name of the port whose marking on the stern is required by § 67.123 of this chapter.

(b) The length of the painter must be plainly marked or painted, near one entrance of each rigid liferaft.

(c) The number of persons the rigid liferaft is approved for must be plainly marked or painted, over each entrance to each raft, in letters and numbers at least 102 millimeters (4 inches) high

and in a color contrasting to that of the raft. This number must—

(1) Be the number of persons the rigid liferaft is equipped for; and

(2) Not be greater than the number of persons the rigid liferaft is approved for, as shown on its nameplate.

(d) The rigid liferaft must be marked with the words “SOLAS A pack” or “SOLAS B pack”, to reflect the pack inside.

§ 131.865 Inflatable liferafts and inflatable buoyant apparatus.

The number of the inflatable liferaft or inflatable buoyant apparatus and the number of persons it is approved for must be marked or painted, in a conspicuous place in the immediate vicinity of each raft and each apparatus, in letters and numbers at least 38 millimeters (1½ inches) high and in a color contrasting to that of the raft or apparatus. Each raft or apparatus stowed on the side of a vessel must be numbered like a liferaft in compliance with § 199.178 (c) and (d) of this chapter. No letters or numbers may go on the liferaft or on the container of the apparatus.

§ 131.870 Life floats and buoyant apparatus.

(a) The name of the vessel must be plainly marked or painted on each life float or buoyant apparatus, and on each oar and paddle.

(b) The number of persons each life float or buoyant apparatus is approved for must be plainly marked or painted on each float or apparatus in letters and numbers at least 38 millimeters (1½ inches) high and in a color contrasting to that of the float or apparatus. This number must—

(1) Be the number of persons the float or apparatus is equipped for; and

(2) Not be greater than the number of persons the float or apparatus is approved for, as shown on its nameplate.

§ 131.875 Lifejackets, immersion suits, and ring buoys.

(a) Each lifejacket, immersion suit, and ring life buoy must be marked in block capital letters with the vessel's name.

(b) Each container for lifejackets and immersion suits must be marked in let-

ters and numbers at least 50 millimeters (2 inches) high with the number, identity, or IMO symbol specified by IMO Resolution A.760(18), and size of the items stowed inside.

(c) Each ring buoy on a vessel in ocean service must be marked in block capital letters with the name of the port whose marking on the stern of the vessel is required by § 67.123 of this chapter.

(d) Each stowage site for a ring buoy must be marked “LIFE BUOY” or marked with the IMO symbol.

(e) Each lifejacket must be marked with Type I retro-reflective material approved under subpart 164.018 of this chapter. The arrangement of the retro-reflective material must comply with IMO Resolution A.658(16).

(f) Each ring life buoy must be marked with Type I or II retro-reflective material approved under subpart 164.018 of this chapter. The arrangement of the retro-reflective material must comply with IMO Resolution A.658(16).

§ 131.880 Fire hoses and axes.

Each fire hose and axe must be marked with the vessel's name.

§ 131.890 EPIRBs and SARTs.

The name of the vessel must be plainly marked or painted on each Emergency Position Indicating Radio Beacon (EPIRB) and on each Search and Rescue Transmitter (SART), except on an EPIRB or SART—

(a) In an inflatable liferaft; or

(b) Permanently installed in a survival craft.

[CGD 82-004 and CGD 86-074, 62 FR 49340, Sept. 19, 1997, as amended by USCG-2010-0759, 75 FR 60003, Sept. 29, 2010]

§ 131.893 Watertight doors and watertight hatches.

Each watertight door in a bulkhead that must be watertight in compliance with the requirements in part 174 of this chapter, and each watertight hatch, must be marked on both sides in letters at least 50 millimeters (2 inches) high that state the following: “WATERTIGHT DOOR—KEEP CLOSED EXCEPT FOR PASSAGE” or “WATERTIGHT HATCH—KEEP CLOSED WHEN NOT IN USE”.

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§ 131.896 Remote stopping-systems.

The remote stopping-systems required by §129.540 of this subchapter must be clearly marked to show what system each controls.

§ 131.899 Fire dampers.

Each fire damper installed within the boundary of a space protected by a fixed fire extinguishing system must be fitted with an indicator showing whether the damper is open or closed and must be marked with red letters at least 13 millimeters (½-inch) high stating "FIRE DAMPER" and, as otherwise appropriate, identifying the space served by the fire damper.

Subpart I—Miscellaneous

§ 131.905 Statutory penalties.

(a) The marine-safety statutes and other statutes impose criminal and civil penalties for violating the applicable provisions of this subchapter. Possible sanctions include:

- (1) Assessment and collection of civil monetary penalty.
- (2) Criminal prosecution, where no loss of life results.
- (3) Criminal prosecution for manslaughter, where loss of life results from violating marine-safety statutes or regulations or from misconduct, negligence, or inattention to duty.
- (4) Libel against vessel.

(b) 46 U.S.C. Chapter 77 allows, in addition to the foregoing, the suspension or revocation of credentials licenses, certificates, or documents issued by the Coast Guard, for incompetence, misconduct, or negligence or for violating marine-safety statutes or regulations.

[CGD 82-004 and CGD 86-074, 62 FR 49340, Sept. 19, 1997, as amended by USCG-2006-24371, 74 FR 11266, Mar. 16, 2009]

§ 131.910 Notices to mariners and aids to navigation.

Each master and mate shall acquaint himself or herself with the latest information published by the Coast Guard and the National Imagery and Mapping

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Agency regarding aids to navigation in the area in which the vessel operates.

[CGD 82-004 and CGD 86-074, 62 FR 49340, Sept. 19, 1997, as amended by USCG-2001-10224, 66 FR 48620, Sept. 21, 2001]

§ 131.915 Persons allowed in pilothouse and on navigational bridge.

No person may be in the pilothouse while the vessel is under way, unless connected with the navigation of the vessel or authorized for good cause by the master or mate on watch.

§ 131.920 Level of manning.

Each vessel must carry the personnel required by the Certificate of Inspection, as determined by the cognizant OCMI, based on an evaluation under part 15 of this chapter.

§ 131.925 Compliance with provisions of Certificate of Inspection.

The master of the vessel shall ensure compliance with each provision of the Certificate of Inspection. Nothing in this subchapter prevents the master's diverting the vessel from the route prescribed in the Certificate, or taking other steps necessary and prudent to assist vessels in distress or to handle similar emergencies.

§ 131.930 Display of stability letter.

If the Coast Guard issues a stability letter under §170.120 of this chapter, the letter must be readily available to the person on watch in the pilothouse of the vessel.

§ 131.935 Prevention of oil pollution.

Each vessel must be operated in compliance with—

- (a) Section 311 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1321); and
- (b) 33 CFR parts 151, 155, and 156.

§ 131.940 Marine sanitation device.

Each vessel with installed toilet facilities must have a marine sanitation device in compliance with 33 CFR part 159.

§ 131.945 Display of plans.

Each vessel must have a permanently exhibited, for the guidance of the master and crew members, general arrangement plans showing, for each deck, the various fire-retardant bulkheads together with particulars of the—

- (a) Fire-detection systems;
- (b) Manual-alarm systems;
- (c) Fire-extinguishing systems;
- (d) Fire doors;
- (e) Means of ingress to the different compartments; and
- (f) Ventilating-systems, including the—
 - (1) Positions of the dampers;
 - (2) Site of the remote means of stopping the fans; and
 - (3) Identification of the fans serving each section.

§ 131.950 Placard on lifesaving signals and helicopter recovery.

(a) Each vessel must have readily available to the person on watch in the pilothouse a placard (Form CG-811) containing instructions—

- (1) For the use of lifesaving signals set forth in Regulation 16, Chapter V, of SOLAS 74/83; and
 - (2) In helicopter recovery.
- (b) The signals must be employed by vessels or persons in distress when communicating with lifesaving stations and maritime rescue units.

§ 131.955 Display of merchant mariner credential.

Each officer on a vessel must conspicuously display his or her license or officer endorsements as required by 46 U.S.C. 7110.

[USCG-2006-24371, 74 FR 11266, Mar. 16, 2009]

§ 131.960 Use of auto-pilot.

When the automatic pilot is used in areas of high traffic density, conditions of restricted visibility, or any other hazardous navigational situations, the master shall ensure that—

- (a) It is possible to immediately establish manual control of the vessel's steering;
- (b) A competent person is ready at all times to take over steering control; and

(c) The changeover from automatic to manual control of the vessel's steering and the reverse is made by, or under the supervision of, the master or officer of the watch.

§ 131.965 Sounding of whistle.

No vessel may sound its whistle within any harbor limits of the United States unless it needs to.

§ 131.970 Unauthorized lighting.

No master of a vessel may authorize or permit the vessel's carrying of any lighting not required by law that will interfere in any way with any other vessel's ability to distinguish the vessel's navigation lighting.

§ 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.

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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.

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.

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(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 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

§ 132.210 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.

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(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 OCMI, who may also deem added extinguishers necessary for the proper protection of the vessel.

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

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.
	B-III	1. Required. ⁽¹⁾ , ⁽²⁾
Electric propulsion motors or generators of open type.	C-II	1. For each propulsion motor or generator unit.
Auxiliary spaces: Internal combustion	B-II	1. Outside space in vicinity of exit. ⁽²⁾
Electric motors and emergency generators.	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 recharged 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 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—

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(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 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.
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]

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§ 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.

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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.

Subpart A—General

§ 133.03 Relationship to international standards.

This subpart and subpart B of this part are based on Chapter III, SOLAS. Section numbers in this subpart and subpart B of this part are generally related to the regulation numbers in Chapter III, SOLAS, but paragraph designations are not related to the numbering in Chapter III, SOLAS. To find the corresponding Chapter III, SOLAS regulation for this subpart and subpart B of this part, beginning with §133.10, divide the section number following the decimal point by 10.

§ 133.07 Additional equipment and requirements.

The OCMI may require an OSV to carry specialized or additional lifesaving equipment other than as required in this part if the OCMI determines that the conditions of a voyage present uniquely hazardous circumstances which are not adequately addressed by existing requirements.

§ 133.09 Equivalents.

When this part requires a particular fitting, material, or lifesaving appliance or arrangement, the Commandant (CG-521) may accept any other fitting, material, or lifesaving appliance or arrangement that is at least as effective as that required by this part. The Commandant may require engineering evaluations and tests to determine the equivalent effectiveness of the substitute fitting, material, or lifesaving appliance or arrangement.

[CGD 84-069, 61 FR 25304, May 20, 1996, as amended by USCG-2009-0702, 74 FR 49235, Sept. 25, 2009]

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§ 133.10 Applicability.

(a) Unless expressly provided otherwise in this part, this part applies to all inspected OSVs of the United States flag, including liftboats.

(b) Offshore supply vessels which were constructed prior to October 1, 1996, must—

(1) By October 1, 1997, meet the requirements of §§ 133.60(a), 133.80, and 133.90;

(2) By October 1, 1997, fit retro-reflective material on all floating appliances, lifejackets, and immersion suits; and

(3) Offshore supply vessels may retain the arrangement of lifeboats, lifeboat davits, winches, inflatable liferafts, liferaft launching equipment, rescue boats, lifefloats, and buoyant apparatus previously required and approved for the OSV, as long as the arrangement or appliance is maintained in good condition to the satisfaction of the OCMI.

(c) When any lifesaving appliance or arrangement on an OSV subject to this part is replaced, or when the OSV undergoes repairs, alterations, or modifications of a major character involving replacement of, or any addition to, the existing lifesaving appliances or arrangements, each new lifesaving appliance and arrangement must meet the requirements of this part, unless the OCMI determines that the OSV cannot accommodate the new appliance or arrangement.

[CGD 84-069, 61 FR 25304, May 20, 1996; 61 FR 40281, Aug. 1, 1996]

§ 133.20 Exemptions.

(a) If a District Commander determines that the overall safety of the persons on board an OSV will not be significantly reduced, the District Commander may grant an exemption from compliance with a provision of this part to a specific OSV for a specified geographic area within the boundaries of the Coast Guard District. This exemption may be limited to certain periods of the year.

(b) Requests for exemption under this section must be in writing to the OCMI for transmission to the District Commander in the area in which the OSV is in service or will be in service.

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(c) If the exemption is granted by the District Commander, the OCMI will endorse the OSV's Certificate of Inspection with a statement describing the exemption.

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

(a) Each item of lifesaving equipment required by this part to be carried on board the OSV must be approved.

(b) Each item of lifesaving equipment carried on board the OSV in addition to those required by this part must—

(1) Be approved; or

(2) Be accepted by the cognizant OCMI for use on the OSV.

(c) The Commandant (CG-521) may accept a novel lifesaving appliance or arrangement if it provides a level of safety equivalent the requirements of this part and if the appliance or arrangement—

(1) Is evaluated and tested in accordance with IMO Resolution A.520(13), Code of Practice for the Evaluation, Testing and Acceptance of Prototype Novel Life-saving Appliances and Arrangements; or

(2) Has successfully undergone evaluation and tests that are substantially equivalent to those recommendations.

(d) During an OSV's construction, and when any modification to the lifesaving arrangement is done after construction, a OSV owner must obtain acceptance of lifesaving arrangements from the Commandant (Marine Safety Center).

(e) The OCMI may accept substitute lifesaving appliances other than those required by this part, except for—

(1) Survival craft and rescue boats; and

(2) Survival craft and rescue boat launching and embarkation appliances.

(f) Acceptance of lifesaving appliances and arrangements will remain in effect unless—

(1) The OCMI deems their condition to be unsatisfactory or unfit for the service intended; or

(2) The OCMI deems the crew's ability to use and assist others in the use

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of the lifesaving appliances or arrangements to be inadequate.

[CGD 84-069, 61 FR 25304, May 20, 1996, as amended by USCG-2009-0702, 74 FR 49235, Sept. 25, 2009]

§ 133.45 Tests and inspections of lifesaving equipment and arrangements.

(a) *Initial inspection.* The initial inspection of lifesaving appliances and arrangements for certification includes a demonstration of—

(1) The proper condition and operation of the survival craft and rescue boat launching appliances at loads ranging from light load to 10 percent overload;

(2) The proper condition and operation of rescue boats, including engines and release mechanisms;

(3) The proper condition of flotation equipment such as lifebuoys, lifejackets, immersion suits, work vests, lifefloats, buoyant apparatus, and associated equipment;

(4) The proper condition of distress signaling equipment, including EPIRB and pyrotechnic signaling devices;

(5) The proper condition of line-throwing appliances;

(6) The proper condition and operation of embarkation appliances, including embarkation ladders and marine evacuation systems;

(7) The ability of the crew to effectively carry out abandon-ship procedures; and

(8) The ability to meet the egress and survival craft launching requirements of this part.

(b) *Reinspections.* Tests and inspections of lifesaving equipment shall be carried out during each inspection for renewal of certification and periodic inspection, and shall demonstrate, as applicable,—

(1) The proper condition and operation of the survival craft and rescue boat launching appliances at loads ranging from light load to full load;

(2) The proper condition and operation of rescue boats including engines and release mechanisms;

(3) The proper condition of flotation equipment such as lifebuoys, lifejackets, immersion suits, work vests, lifefloats, buoyant apparatus, and associated equipment;

(4) That each inflatable liferaft and inflatable lifejacket has been serviced as required under this chapter;

(5) That each hydrostatic release unit, other than a disposable hydrostatic release unit, has been serviced as required under this chapter; and

(6) That the crew has the ability to effectively carry out abandon-ship procedures.

(c) *Other inspections.* Lifesaving appliances and arrangements are subject to tests and inspections described in paragraph (b) of this section during OSV boardings to ensure that the appliances and arrangements comply with applicable requirements, are in satisfactory condition, and remain fit for service.

[CGD 84-069, 61 FR 25304, May 20, 1996, as amended by USCG 1999-4976, 65 FR 6507, Feb. 9, 2000]

Subpart B—Requirements for All OSVs

§ 133.60 Communications.

(a) *Emergency position indicating radiobeacons (EPIRB).* (1) Each OSV must carry a category 1 406 MHz satellite EPIRB meeting the requirements of 47 CFR part 80.

(2) When the OSV is underway, the EPIRB must be stowed in its float-free bracket with the controls set for automatic activation and mounted in a manner so that it will float free if the OSV sinks.

(3) Each EPIRB should have the name of the OSV plainly marked or painted on its label, except for EPIRBs in an inflatable liferaft or permanently installed in a survival craft.

(b) *Distress flares.* Each OSV must—

(1) Carry not less than 12 rocket parachute flares approved under approval series 160.136; and

(2) Stow the flares on or near the OSV's navigating bridge.

(c) *Onboard communications and alarm systems.* Each OSV must meet the requirements for onboard communications between emergency control stations, muster and embarkation stations, and strategic positions on board, and the emergency alarm system requirements in part J of this chapter, and be supplemented by either a public address system or other suitable means of communication.

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(d) *Emergency position indicating radio-beacon alternative.* OSVs, as an alternative to the requirements in paragraph (a) of this section, may until February 1, 1999, have a Coast Guard-approved class A EPIRB, if the EPIRB was—

(1) Manufactured after October 1, 1988; and

(2) Installed on the OSV on or before July 5, 1996.

[CGD 84–069, 61 FR 25304, May 20, 1996, as amended by USCG 1998–4442, 63 FR 52191, Sept. 30, 1998]

§ 133.70 Personal lifesaving appliances.

(a) *Lifebuoys.* Each OSV must carry lifebuoys approved under approval series 160.150 or 160.050 as follows:

(1) *Number.* The number of lifebuoys carried must be as prescribed in table 133.70 of this section.

TABLE 133.70

Length of vessel in meters (feet)	Minimum number of ring lifebuoys	
	Ocean service	Coast- wise service
Under 30 (98)	8	3
30 (98) and under 60 (196)	8	4
60 (196) and under 100 (328)	8	6
100 (328) and over	12	12

(2) *Stowage.* Lifebuoys must be stowed as follows:

(i) Each lifebuoys must be capable of being rapidly cast loose.

(ii) Each lifebuoys must not be permanently secured to the OSV in any way.

(iii) Each lifebuoys stowage position must be marked with either the words “LIFEBUOY” or “LIFE BUOY”, or with the appropriate symbol from IMO Resolution A.760(18).

(iv) Lifebuoys must be so distributed as to be readily available on each side of the OSV and, as far as practicable, on each open deck extending to the side of the OSV. At least one lifebuoys must be located near the stern of the OSV. The lifebuoys with attached self-igniting lights must be equally distributed on both sides of the OSV.

(3) *Color and markings.* Lifebuoys must be colored and marked as follows:

(i) Each lifebuoys must be orange.

(ii) Each lifebuoys must be marked in block capital letters with the name of

the OSV and the name of the port required to be marked on the stern of the OSV under subpart 67.123 of this chapter.

(4) *Attachments and fittings.* Lifebuoys must have the following attachments and fittings:

(i) At least one lifebuoys on each side of the OSV fitted with a buoyant lifeline that is—

(A) At least as long as twice the height where it is stowed above the waterline in the lightest seagoing condition, or 30 meters (100 feet), whichever is the greater;

(B) Non-kinking;

(C) Not less than 8 millimeters ($\frac{5}{16}$ inch) in diameter;

(D) Of a breaking strength which is not less than 5 kiloNewtons (1,124 pounds-force); and

(E) Resistant to deterioration from ultraviolet light. Line that is certified by the manufacturer or is synthetic and a dark color meets this requirement.

(ii) Except for an OSV in coastwise service and under 30 meters (99 feet) in length, at least one-half the total number of lifebuoys, but not less than two, must each be fitted with a self-igniting light approved under approval series 161.010. The self-igniting light must not be attached to the lifebuoys required by this section to be fitted with lifelines. However, if the OSV carries less than four lifebuoys, a buoyant lifeline can be fitted to one of the lifebuoys with a self-igniting light.

(b) *Lifejackets.* Each OSV must carry lifejackets approved under approval series 160.002, 160.005, 160.055, 160.077, 160.155, 160.176, or 160.177. If the OSV carries inflatable lifejackets, they must be of the same or similar design and have the same method of operation.

(1) *General.* Each OSV must carry a lifejacket for each person on board and in addition, a sufficient number of lifejackets must be carried for persons on watch and for use at remotely located survival craft stations.

(2) *Stowage.* Lifejackets must be stowed as follows:

(i) The lifejackets must be readily accessible.

(ii) The lifejacket stowage positions must be marked with either the word

“LIFEJACKETS” or with the appropriate symbol from IMO Resolution A.760(18).

(iii) The additional lifejackets required by paragraph (b)(1) of this section must be stowed on the bridge, in the engine control room, and at other manned watch stations.

(3) *Markings.* Each lifejacket must be marked—

(i) In block capital letters with the name of the OSV; and.

(ii) With type I retro-reflective material approved under approval series 164.018. The arrangement of the retro-reflective material must meet IMO Resolution A.658(16).

(4) *Lifejacket lights.* Each lifejacket must have a lifejacket light approved under approval series 161.112 or 161.012 securely attached to the front shoulder area of the lifejacket. However, lifejacket lights bearing Coast Guard approval number 161.012/2/1 are not permitted on OSVs certificated to operate on waters where water temperature may drop below 10 °C (50 °F).

(c) *Immersion suits or anti-exposure suits.* Immersion suits must be approved under approval series 160.171, and anti-exposure suits must be approved under approval series 160.153.

(1) *General.* Each OSV, except OSVs operating in the Gulf of Mexico or on other routes between 32 degrees north latitude and 32 degrees south latitude, must carry—

(i) An immersion suit or anti-exposure suit of suitable size for each person assigned to the rescue boat crew; and

(ii) An immersion suit of the appropriate size for each person on board. The immersion suits required under this paragraph count toward meeting the requirements of paragraph (c)(1)(i) of this section.

(2) *Stowage.* Immersion suits and anti-exposure suits must be stowed as follows:

(i) Immersion suits and anti-exposure suits must be stowed so they are readily accessible, and the stowage positions must be marked with the words “IMMERSION SUITS” or “ANTI-EXPOSURE SUITS” as appropriate, or with the appropriate symbol from IMO Resolution A.760(18).

(ii) If watch stations, work stations, or work sites are remote from cabins, staterooms, or berthing areas and the immersion suits are stowed in those locations, there must be, in addition to the immersion suits required under paragraph (c)(1)(ii) of this section, enough immersion suits stowed at the watch stations, work stations, or work sites to equal the number of persons normally on watch in, or assigned to, those locations at any time.

(3) *Markings.* Each immersion suit or anti-exposure suit must be marked in such a way as to identify the person or OSV to which it belongs.

(4) *Lights for immersion suits or anti-exposure suits.* Each immersion suit or anti-exposure suit must have a lifejacket light approved under approval series 161.112 or 161.012 securely attached to the front shoulder area of the immersion suit or anti-exposure suit. However, lifejacket lights bearing Coast Guard approval number 161.012/2/1 are not permitted on OSVs certificated to operate on waters where water temperature may drop below 10 °C (50 °F).

(d) *Lifejacket, immersion suit, and anti-exposure suit containers.* Each lifejacket, immersion suit, and anti-exposure suit container must be marked in block capital letters and numbers with the quantity, identity, and size of the equipment stowed inside the container. The equipment may be identified in words, or with the appropriate symbol from IMO Resolution A.760(18).

[CGD 84-069, 61 FR 25304, May 20, 1996; 61 FR 40281, Aug. 1, 1996, as amended at 63 FR 52816, Oct. 1, 1998]

§ 133.80 Emergency instructions.

(a) *General.* Copies of clear instructions must be provided on the OSV, detailing the actions that each person on board should follow in the event of an emergency.

(b) *Emergency instructions.* Illustrations and instructions in English and any other appropriate language, as determined by the OCMI, must be conspicuously displayed at each muster station and in spaces where offshore workers are carried, to inform offshore workers of—

- (1) The fire and emergency signal;
- (2) Their muster station;

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(3) The essential actions they must take in an emergency;

(4) The location of lifejackets; and

(5) The method of donning lifejackets.

§ 133.90 Operating instructions.

Each OSV must have posters or signs displayed in the vicinity of each survival craft and the survival craft's launching controls that—

(a) Illustrate the purpose of controls;

(b) Illustrate the procedures for operating the launching device;

(c) Give relevant instructions or warnings;

(d) Can be easily seen under emergency lighting conditions; and

(e) Display symbols in accordance with IMO Resolution A.760(18).

§ 133.105 Survival craft.

(a) Each survival craft must be approved and equipped as follows:

(1) Each inflatable liferaft—

(i) On an OSV on an unlimited oceans route, must be approved under approval series 160.151 and be equipped with a SOLAS A pack;

(ii) On an OSV on an oceans route limited to within 50 nautical miles of the shore, must be approved under approval series 160.151 and be equipped with either a SOLAS A pack or SOLAS B pack; and

(iii) On an OSV on a coastwise route, must be approved under approval series 160.051 or 160.151, with any approved equipment pack.

(2) Each rigid liferaft must be approved under approval series 160.118 and be equipped as specified in table 133.175 of this part.

(3) Each inflatable buoyant apparatus must be approved under approval series 160.010.

(4) Each lifefloat must be approved under approval series 160.027 and be equipped with the following:

(i) *One boathook.*

(ii) *Two paddles.* Each paddle must be at least 1.2 meters (4 feet) long and buoyant.

(iii) *One painter.* The painter must—

(A) Be at least 30 meters (100 feet) long, but not less than three times the distance between the deck where the lifefloats are stowed and to the OSV's

waterline in the lightest seagoing condition;

(B) Have a breaking strength of at least 6.7 kiloNewtons (1,500 pounds-force), except that if the capacity of the lifefloat is 50 persons or more, the breaking strength must be at least 13.4 kiloNewtons (3,000 pounds-force);

(C) If made of a synthetic material, be dark in color or certified by the manufacturer to be resistant to deterioration from ultraviolet light;

(D) Be stowed in such a way that it runs out freely when the buoyant apparatus, inflatable buoyant apparatus, or lifefloat floats away from the sinking OSV; and

(E) Have a float-free link meeting the requirements of part 160, subpart 160.073 of this chapter, connecting the painter to the OSV.

(iv) *One self-igniting light.* The self-igniting light must be approved under approval series 161.010, and must be attached to the buoyant apparatus, inflatable buoyant apparatus, or lifefloat by a 12-thread manila or equivalent lanyard, at least 5.5 meters (18 feet) long. The self-igniting light is not required on a lifefloat with a capacity of 24 persons or less.

(5) Each marine evacuation system must be approved under approval series 160.175.

(6) Lifeboats may be substituted for liferafts. If lifeboats are installed on an OSV, their installation and arrangement must meet the applicable requirements of subchapter W of this chapter.

(b) Except as provided in paragraph (c) of this section, OSVs must carry one or more liferafts with an aggregate capacity that will accommodate the total number of persons on board. The liferafts must be—

(1) Stowed in a position providing for easy side-to-side transfer at a single open deck level; or

(2) Additional liferafts must be provided to bring the total capacity available on each side to at least 100 percent of the total number of persons on board. If additional liferafts are provided and the rescue boat required under § 133.135 is also a lifeboat, it may be included in the aggregate capacity requirement.

(c) Each OSV operating in the Gulf of Mexico, as an alternative to the requirements of paragraph (b) of this section, may carry a sufficient number of inflatable buoyant apparatus or a sufficient number of lifefloats, having an aggregate capacity that, together with any lifeboats, rescue boats, and life rafts, will accommodate the total number of persons on board.

[CGD 84-069, 61 FR 25304, May 20, 1996; 61 FR 40281, Aug. 1, 1996]

§ 133.110 Survival craft muster and embarkation arrangements.

(a) Each OSV must have muster stations that—

(1) Are near the embarkation stations, unless the muster station is the embarkation station;

(2) Permit ready access for the offshore workers to the embarkation station, unless the muster station is the embarkation station; and

(3) Have sufficient room to marshal and instruct the offshore workers.

(b) Each muster station must have sufficient space to accommodate all persons assigned to muster at that station. One or more muster stations must be close to each embarkation station.

(c) Each muster station and embarkation station must be readily accessible to accommodation and work areas.

(d) Each muster station and embarkation station must be adequately illuminated by lighting supplied from the emergency source of electrical power.

(e) Each davit-launched survival craft muster station and embarkation station must be arranged to enable stretcher cases to be placed in the survival craft.

(f) Each launching station or each two adjacent launching stations with an embarkation position more than 3 meters (10 feet) above the waterline in the lightest seagoing condition, must have an embarkation ladder as follows:

(1) Each embarkation ladder must be approved under approval series 160.117 or approval series 160.017.

(2) Each embarkation ladder must extend in a single length, from the deck to the waterline in the lightest seagoing condition under unfavorable con-

ditions of trim and with the OSV listed not less than 15 degrees either way.

(3) Each embarkation ladder may be replaced by a device approved to provide safe and rapid access to survival craft in the water, if the OCMI permits the device, provided that there is at least one embarkation ladder on each side of the OSV.

(g) Each davit-launched liferaft must be arranged to be boarded and launched from a position immediately adjacent to the stowed position or from a position to where, under §133.130, the liferaft is transferred before launching.

(h) If a davit-launched survival craft is embarked over the edge of the deck, the craft must be provided with a means for bringing it against the side of the OSV and holding it alongside the OSV to allow persons to safely embark.

(i) If a davit-launched survival craft or rescue boat is not intended to be moved to the stowed position with persons on board, the craft must be provided with a means for bringing it against the side of the OSV and holding it alongside the OSV to allow persons to safely disembark after a drill.

§ 133.120 Launching stations.

(a) Each launching station must be positioned to ensure safe launching with clearance from—

(1) The propeller; and

(2) The steeply overhanging portions of the hull.

(b) Each survival craft must be launched down the straight side of the OSV.

(c) Each launching station in the forward part of the OSV must—

(1) Be located aft of the collision bulkhead in a sheltered position; and

(2) Have a launching appliance approved as being of sufficient strength for forward installation.

[CGD 84-069, 61 FR 25304, May 20, 1996; 61 FR 40281, Aug. 1, 1996]

§ 133.130 Stowage of survival craft.

(a) *General.* Each survival craft must be stowed as follows:

(1) Each survival craft must be as close to the accommodation and service spaces as possible.

(2) Each survival craft must be stowed in a way that neither the survival craft nor its stowage arrangements will interfere with the embarkation and operation of any other survival craft or rescue boat at any other launching station.

(3) Each survival craft must be as near the water surface as is safe and practicable.

(4) Other than liferafts intended for throw-overboard launching, each survival craft must be not less than 2 meters above the waterline with the OSV—

- (i) In the fully loaded condition;
- (ii) Under unfavorable conditions of trim; and
- (iii) Listed up to 20 degrees either way, or to the angle where the OSV's weatherdeck edge becomes submerged, whichever is less.

(5) Each survival craft must be sufficiently ready for use so that two crew members can complete preparations for embarkation and launching in less than 5 minutes.

(6) Each survival craft must be fully equipped as required under this part.

(7) Each survival craft must be in a secure and sheltered position and protected from damage by fire and explosion, as far as practicable.

(8) Each survival craft must not require lifting from its stowed position in order to launch, except that—

- (i) A davit-launched liferaft may be lifted by a manually powered winch from its stowed position to its embarkation position; or
- (ii) A survival craft that weights 185 kilograms (407.8 pounds) or less, may require lifting of not more than 300 millimeters (1 foot).

(b) *Additional liferaft stowage requirements.* In addition to meeting the requirements of paragraph (a) of this section, each liferaft must be stowed as follows:

(1) Each liferaft must be stowed to permit manual release from its securing arrangements.

(2) Each liferaft must be stowed at a height above the waterline in the lightest seagoing condition not greater than the maximum stowage height indicated on the liferaft container. Each liferaft without an indicated maximum stowage height must be stowed not more

than 18 meters (59 feet) above the waterline in the OSV's lightest seagoing condition.

(3) Each liferaft must be arranged to permit it to drop into the water from the deck on which it is stowed. A liferaft stowage arrangement meets this requirement if it—

- (i) Is outboard of the rail or bulwark;
- (ii) Is on stanchions or on a platform adjacent to the rail or bulwark; or
- (iii) Has a gate or other suitable opening to allow the liferaft to be pushed directly overboard and—

(A) Each gate or opening must be large enough to allow the liferaft to be pushed overboard; and

(B) If the liferaft is intended to be available for use on either side of the OSV, a gate or opening must be provided on each side.

(4) Each davit-launched liferaft must be stowed within reach of its lifting hook, unless some means of transfer is provided that is not rendered inoperable—

- (i) Within the limits of trim and list and list specified in paragraph (a)(4)(iii) of this section;
- (ii) By OSV motion; or
- (iii) By power failure.

(5) Each rigid container for an inflatable liferaft to be launched by a launching appliance must be secured in a way that the container or parts of it are prevented from falling into the water during and after inflation and launching of the contained liferaft.

(6) Each liferaft must have a painter system providing a connection between the OSV and the liferaft.

(7) Each liferaft or group of liferafts must be arranged for float-free launching. The arrangement must ensure that the liferaft or liferafts when released and inflated, are not dragged under by the sinking OSV. A hydrostatic release unit used in a float-free arrangement must be approved under approval series 160.162.

(c) *Additional lifefloat stowage requirements.* Each lifefloat must be capable of float-free launching and be arranged as follows:

(1) Lifefloats must be secured to the OSV by—

- (i) A hydrostatic release unit approved under approval series 160.062 or 160.162 and that is appropriate for the

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size and number of the lifefloats attached to them; or

(ii) Lashings that can be easily slipped.

(2) A painter must be secured to the lifefloat by—

(i) The attachment fitting provided by the manufacturer; or

(ii) A wire or line that encircles the body of the lifefloat and will not slip off, and meets the requirements of § 133.105(a)(4)(iii).

(3) If lifefloats are arranged in groups with each group secured by a single painter,—

(i) The combined weight of each group must not exceed 185 kilograms (407.8 pounds);

(ii) Each lifefloat must be individually attached to the group's single painter by its own painter which must be long enough to allow floating without contact with any other lifefloat in the group;

(iii) The strength of the float-free link and the strength of the group's single painter must be appropriate for the combined capacity of the group of lifefloats;

(iv) The group of lifefloats must not be stowed in more than four tiers. When stowed in tiers, the separate units must be kept apart by spacers; and

(v) The group of lifefloats must be stowed to prevent shifting with easily detached lashings.

[CGD 84-069, 61 FR 25304, May 20, 1996, as amended at 63 FR 52816, Oct. 1, 1998]

§ 133.135 Rescue boats.

(a) Each OSV must carry at least one rescue boat. Each rescue boat must be approved under approval series 160.156 and equipped as specified in table 133.175 of this part.

(b) Offshore supply vessels, as an alternative to the requirement in paragraph (a) of this section, may carry a motor-propelled workboat or a launch if the workboat or launch must meet the embarkation, launching, and recovery arrangement requirements in § 133.160(a), (c), (d), (e), and (f).

(c) A rescue boat is not required for a vessel operating on the continental shelf of the United States, if—

(1) The OCMI determines the vessel is arranged to allow a helpless person to be recovered from the water;

(2) The recovery of the helpless person can be observed from the navigating bridge; and

(3) The vessel does not regularly engage in operations that restrict its maneuverability.

[CGD 84-069, 61 FR 25304, May 20, 1996, as amended by USCG-2000-7790, 65 FR 58463, Sept. 29, 2000; USCG-2011-0618, 76 FR 60754, Sept. 30, 2011]

§ 133.140 Stowage of rescue boats.

(a) Rescue boats must be stowed as follows:

(1) Each rescue boat must be ready for launching in not more than 5 minutes.

(2) Each rescue boat must be in a position suitable for launching and recovery.

(3) Each rescue boat must be stowed in a way that neither the rescue boat nor its stowage arrangements will interfere with the operation of any survival craft at any other launching station.

(b) Each rescue boat must be provided a means for recharging the rescue boat batteries from the OSV's power supply at a supply voltage not exceeding 50 volts.

(c) Each inflated rescue boat must be kept fully inflated at all times.

§ 133.145 Marine evacuation system launching arrangements.

(a) *Arrangements.* Each marine evacuation system must have the following arrangements:

(1) Each marine evacuation system must be capable of being deployed by one person.

(2) Each marine evacuation system must enable the total number of persons for which it is designed, to be transferred from the OSV into the inflated liferafts within a period of 10 minutes from the time an abandon-ship signal is given.

(3) Each marine evacuation system must be arranged so that liferafts may be securely attached to the platform and released from the platform by a person either in the liferaft or on the platform.

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(4) Each marine evacuation system must be capable of being deployed from the OSV under unfavorable conditions of trim of up to 10 degrees either way and of list of up to 20 degrees either way.

(5) If the marine evacuation system has an inclined slide, the angle of the slide from horizontal must be within a range of 30 to 35 degrees when the OSV is upright and in the lightest seagoing condition.

(6) Each marine evacuation system platform must be capable of being restrained by a bowing line or other positioning system that is designed to deploy automatically, and if necessary, be capable of being adjusted to the position required for evacuation.

(b) *Stowage.* Each marine evacuation system must be stowed as follows:

(1) There must not be any openings between the marine evacuation system's embarkation station and the OSV's side at the OSV's waterline in the lightest seagoing condition.

(2) The marine evacuation system's launching positions must be arranged, as far as practicable, to be straight down the OSV's side and safely clear the propeller and any steeply overhanging positions of the hull.

(3) The marine evacuation system must be protected from any projections of the OSV's structure or equipment.

(4) The marine evacuation system's passage and platform, when deployed; its stowage container; and its operational arrangement must not interfere with the operation of any other lifesaving appliance at any other launching station.

(5) Where appropriate, the marine evacuation system's stowage area must be protected from damage by heavy seas.

(c) *Stowage of associated liferafts.* Inflatable liferafts used in conjunction with the marine evacuation system must be stowed as follows:

(1) Each inflatable liferaft used in conjunction with the marine evacuation system must be close to the system container, but capable of dropping clear of the deployed chute and boarding platform.

(2) Each inflatable liferaft used in conjunction with the marine evacuation

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system must be capable of individual release from its stowage rack.

(3) Each inflatable liferaft used in conjunction with the marine evacuation system must be stowed in accordance with § 133.130.

(4) Each inflatable liferaft used in conjunction with the marine evacuation system must be provided with preconnected or easily connected retrieving lines to the platform.

§ 133.150 Survival craft launching and recovery arrangements: General.

(a) All survival craft required for abandonment by the total number of persons on board must be capable of being launched with their full complement of persons and equipment within 10 minutes from the time the abandon-ship signal is given.

(b) Each launching appliance for a davit-launched liferaft must be approved under approval series 160.163, with an automatic disengaging apparatus approved under approval series 160.170.

(c) Unless expressly provided otherwise, each survival craft must be provided launching appliances or marine evacuation systems, except—

(1) Those survival craft that can be boarded from a position on deck less than 4.5 meters (14.75 feet) above the waterline in the lightest seagoing condition and that have a mass of not more than 185 kilograms (407 pounds);

(2) Those survival craft that can be boarded from a position on deck less than 4.5 meters (14.75 feet) above the waterline in the lightest seagoing condition and that are stowed for launching directly from the stowed position, under unfavorable conditions of trim of 10 degrees and list of 20 degrees either way;

(3) Those survival craft that are carried in excess of the survival craft for 200 percent of the total number of persons on board the OSV, and that have a mass of not more than 185 kilograms (407 pounds);

(4) Those survival craft carried in excess of the survival craft for 200 percent of the total number of persons on board the OSV, and are stowed for launching directly from the stowed position under unfavorable conditions of

trim of 10 degrees and list of 20 degrees either way;

(5) Those survival craft that are provided for use in conjunction with a marine evacuation system, and stowed for launching directly from the stowed position under unfavorable conditions of trim of 10 degrees and list of 20 degrees either way; or

(6) Liferafts installed on liftboats.

(d) Each launching appliance must be arranged so that the fully equipped survival craft the launching appliance serves can be safely launched against unfavorable conditions of trim of up to 10 degrees either way and of list of up to 20 degrees either way,—

(1) When the survival craft is loaded with its full complement of persons; and

(2) When not more than the required operating crew is on board.

(e) A launching appliance must not depend on any means other than gravity or stored mechanical power, independent of the OSV's power supplies, to launch the survival craft the launching appliance serves, in the fully loaded and equipped condition, and also in the light condition.

(f) Each launching appliance's structural attachment to the OSV must be designed to be at least 4.5 times—

(1) The load imparted on the attachment by the launching appliance and its fully loaded survival craft under the most adverse combination of list and trim as required under paragraph (b) of this section; and

(2) The ultimate strength of the construction material.

(g) Each launching appliance must be arranged so that—

(1) All parts requiring regular maintenance by the OSV's crew are readily accessible and easily maintained;

(2) The launching appliance remains effective under conditions of icing;

(3) The same type of release mechanism is used for each similar survival craft carried on board the OSV;

(4) The preparation and handling of each survival craft at any one launching station does not interfere with the prompt preparation and handling of any other survival craft at any other station;

(5) The persons on board the OSV can safely and rapidly board the survival craft;

(6) Each davit-launched liferaft can be boarded by its full complement of persons within 3 minutes from the time the instruction to board is given; and

(7) During preparation and launching, the survival craft, its launching appliance, and the area of water into which it is to be launched is illuminated by lighting supplied from the emergency source of electrical power.

(h) Each launching mechanism must be arranged so it may be actuated by one person, both from a position on the OSV's deck, and from a position within the survival craft. Each launching and recovery arrangement must allow the operator on the deck to observe the survival craft at all times during launching.

(i) Means must be provided outside the machinery space to prevent any discharge of water onto survival craft during abandonment.

[CGD 84-069, 61 FR 25304, May 20, 1996, as amended at 63 FR 52816, Oct. 1, 1998]

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

Survival craft launching and recovery arrangements, in addition to meeting the requirements in § 133.150, must meet the following requirements:

(a) Each fall wire must be of rotation-resistant and corrosion-resistant steel wire rope.

(b) The breaking strength of each fall wire and each attachment used on the fall must be at least six times the load imparted on the fall by the fully-loaded survival craft.

(c) Each fall must be long enough for the survival craft to reach the water with the OSV in its lightest seagoing condition, under unfavorable conditions of trim and with the OSV listed not less than 20 degrees either way.

(d) Each unguarded fall must not pass near any operating position of the winch, such as hand cranks, pay-out wheels, and brake levers.

(e) Each winch drum must be arranged so the fall wire winds onto the drum in a level wrap. A multiple drum winch must be arranged so that the falls wind off at the same rate when

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lowering, and onto the drums at the same rate when hoisting.

(f) Each fall, where exposed to damage or fouling, must have guards or equivalent protection. Each fall that leads along a deck must be covered with a guard that is not more than 300 millimeters (1 foot) above the deck.

(g) The lowering speed for a fully loaded survival craft must be not less than that obtained from the following formula:

(1) $S = 0.4 + (0.02 H)$, where S is the speed of lowering in meters per second, and H is the height in meters from the davit head to the waterline at the lightest seagoing condition.

(2) $S = 79 + (1.2 H)$, where S is the speed of lowering in feet per minute, and H is the height in feet.

(h) The lowering speed for a survival craft loaded with all of its equipment must be not less than 70 percent of the speed required under paragraph (g) of this section.

(i) The lowering speed for a fully loaded survival craft must be not more than 1.3 meters per second (256 feet per minute).

(j) If a survival craft is recovered by electric power, the electrical installation, including the electric power-operated boat winch, must meet the requirements in part 129 of this chapter. If a survival craft is recovered by any means of power, including a portable power source, safety devices must be provided which automatically cut off the power before the davit arms or falls reach the stops in order to avoid overstressing the falls or davits, unless the motor is designed to prevent such overstressing.

(k) Each launching appliance must be fitted with brakes that meet the following requirements:

(1) The brakes must be capable of stopping the descent of the survival craft or rescue boat and holding it securely when loaded with its full complement of persons and equipment.

(2) The brake pads must, where necessary, be protected from water and oil.

(3) Manual brakes must be arranged so that the brake is always applied unless the operator, or a mechanism acti-

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vated by the operator, holds the brake control in the off position.

[CGD 84-069, 61 FR 25304, May 20, 1996; 61 FR 40281, Aug. 1, 1996]

§ 133.160 Rescue boat embarkation, launching and recovery arrangements.

(a) Each davit for a rescue boat must be approved under approval series 160.132 with a winch approved under approval series 160.115. If the launching arrangement uses a single fall, the davit may be of a type which is turned out manually, and the release mechanism may be an automatic disengaging apparatus approved under approval series 160.170 instead of a lifeboat release mechanism. Each rescue boat must be able to be boarded and launched directly from the stowed position with the number of persons assigned to crew the rescue boat on board. If the rescue boat is also a lifeboat and the other lifeboats are boarded and launched from an embarkation deck, the arrangements must be such that the rescue boat can also be boarded and launched from the embarkation deck.

(b) Each rescue boat must be capable of being launched with the OSV making headway of 5 knots in calm water. A painter may be used to meet this requirement.

(c) Each rescue boat embarkation and launching arrangement must permit the rescue boat to be boarded and launched in the shortest possible time.

(d) Rapid recovery of the rescue boat must be possible when loaded with its full complement of persons and equipment.

(e) Each rescue boat launching appliance must be fitted with a powered winch motor.

(f) Each rescue boat launching appliance must be capable of hoisting the rescue boat when loaded with its full rescue boat complement of persons and equipment at a rate of not less than 0.3 meters per second (59 feet per minute).

[CGD 84-069, 61 FR 25304, May 20, 1996, as amended at 63 FR 52816, Oct. 1, 1998]

§ 133.170 Line-throwing appliance.

(a) *General.* Each OSV must have a line-throwing appliance that is approved under approval series 160.031 or 160.040.

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(b) *Stowage*. The line-throwing appliance and its equipment must be readily accessible for use.

(c) *Additional equipment*. Each OSV must carry the following equipment for the line-throwing appliance:

(1) The equipment on the list provided by the manufacturer with the approved appliance.

(2) An auxiliary line that—

(i) For an appliance approved under approval series 160.040, is at least 450 meters (1,500 feet) long;

(ii) For an appliance approved under approval series 160.031, is at least 150 meters (500 feet) long;

(iii) Has a breaking strength of at least 40 kiloNewtons (9,000 pounds-force); and

(iv) Is, if synthetic, a dark color or certified by the manufacturer to be resistant to deterioration from ultraviolet light.

§ 133.175 Survival craft and rescue boat equipment.

(a) All rescue boat equipment must be as follows:

(1) The equipment must be secured within the boat by lashings, storage in

lockers or compartments, storage in brackets or similar mounting arrangements, or other suitable means.

(2) The equipment must be secured in such a manner as not to interfere with any abandonment procedures or reduce seating capacity.

(3) The equipment must be as small and of as little mass as possible.

(4) The equipment must be packed in a suitable and compact form.

(5) The equipment should be stowed so the items do not—

(i) Reduce the seating capacity;

(ii) Adversely affect the seaworthiness of the survival craft or rescue boat; or

(iii) Overload the launching appliance.

(b) Each rigid liferaft and rescue boat, unless otherwise stated in this paragraph, must carry the equipment specified for it in table 133.175 of this section. Each item in the table has the same description as in § 199.175 of this chapter.

NOTE: Item numbers in the first column of Table 133.175 are not consecutive because not all of the items listed in section 199.175 are required on OSVs.

TABLE 133.175—SURVIVAL CRAFT EQUIPMENT

Item No.	Item	Oceans		Coastwise	
		Rigid liferaft (SOLAS A Pack)	Rescue boat	Rigid liferaft (SOLAS B Pack)	Rescue boat
1	Bailer ¹	1	1	1	1
3	Boathook		1		1
4	Bucket ²		1		1
5	Can opener	3			
6	Compass		1		1
8	Drinking cup	1			
9	Fire extinguisher		1		1
10	First-aid kit	1	1	1	1
11	Fishing kit	1			
12	Flashlight	1	1	1	1
14	Heaving line	1	2	1	2
15	Instruction card	1		1	
17	Knife ^{1,3}	1	1	1	1
18	Ladder		1		1
19	Mirror, signalling	1		1	
20	Oars, units ⁴		1		1
	Paddles	2		2	
21	Painter	1	1	1	1
22	Provisions (units per person)	1			
23	Pump ⁵		1		1
24	Radar reflector	1	1	1	1
26	Repair kit ⁵		1		1
27	Sea anchor	2	1	2	1
28	Searchlight		1		1
29	Seasickness kit (units per person)	1		1	
30	Signal, smoke	2		1	
31	Signal, hand flare	6		6	
32	Signal, parachute flare	4		4	

TABLE 133.175—SURVIVAL CRAFT EQUIPMENT—Continued

Item No.	Item	Oceans		Coastwise	
		Rigid life-raft (SOLAS A Pack)	Rescue boat	Rigid life-raft (SOLAS B Pack)	Rescue boat
34	Sponge ⁵	2	2	2	2
35	Survival instructions	1	.....	1	.....
36	Table of lifesaving signals	1	.....	1	.....
37	Thermal protective aids (percent of persons) ⁶	10%	10%	10%	10%
39	Towline .....	.....	1	.....	1
40	Water (liters per person)	1.5	.....	1	.....
41	Whistle	1	1	1	1

Notes:

¹ Each liferaft equipped for 13 persons or more must carry two of these items.² Not required for inflated or rigid-inflated rescue boats.³ A hatchet counts towards this requirement in rigid rescue boats.⁴ Oars are not required on a free-fall lifeboat; a unit of oars means the number of oars specified by the boat manufacturer.⁵ Not required for a rigid rescue boat.⁶ Sufficient thermal protective aids are required for at least 10% of the persons the survival craft is equipped to carry, but not less than two.

[CGD 84–069, 61 FR 25304, May 20, 1996, as amended by USCG–1999–6216, 64 FR 53227, Oct. 1, 1999]

PART 134—ADDED PROVISIONS FOR LIFTBOATS

Sec.

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 134.180 Piping for fire-main suction.

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 49352, Sept. 19, 1997, unless otherwise noted.

§ 134.100 Applicability.

This part, as well as parts 125 through 133 of this subchapter, applies to each liftboat of United States flag to which this subchapter applies.

§ 134.110 Initial inspection.

Liftboat jacking systems, liftboat legs, liftboat leg pads, and arrangements for supply of water to fire mains, as well as the items listed by § 126.340 of this subchapter, will normally be inspected during the initial inspection to determine whether the liftboat was built in compliance with developed plans and meets applicable regulations.

§ 134.120 Inspection for certification.

Liftboat jacking systems, liftboat legs, liftboat leg pads, and arrangements for supply of water to fire mains, as well as the items listed by § 126.430 of this subchapter, will normally be inspected during an inspection for certification and periodic inspection to determine whether the liftboat is in satisfactory condition and fit for the service intended.

[CGD 82–004 and CGD 86–074, 62 FR 49352, Sept. 19, 1997, as amended by USCG 1999–4976, 65 FR 6507, Feb. 9, 2000]

§ 134.130 New construction.

Each applicant for an original Certificate of Inspection and for approval of plans must submit, as well as three copies of those required by § 127.110 of this subchapter, three copies of the following plans:

- Operating Manual for Liftboats.
- Legs, details of supporting structure, and structural calculations.

§ 134.140 Structural standards.

- Except as provided by paragraph (b) of this section, each liftboat must comply with the ABS's "Rules for Building and Classing Mobile Offshore Drilling Units", assuming a steady wind speed of 100 knots for liftboats in unrestricted service, and 70 knots for liftboats in restricted service under normal operating conditions and 100

knots under severe storm conditions, as follows:

(1) The main hull structure, legs, and supporting structure must comply with Section 3/4.3 of the Rules.

(2) The calculations required by Section 3/4.3 of the Rules must assume the vessel to be in the most adverse loading conditions described by Sections 3/2.1 and 3/4.1 of the Rules.

(3) Unless otherwise agreed upon by the Commandant (CG-521), the calculations on column-buckling required by Section 3/4.3 of the Rules, must employ an effective-length factor, “K”, of not less than 2.0.

(4) The calculations on single-rack jacking systems required by Sections 3/2.1 and 3/4.1 of the Rules must include an extra bending moment caused by the most adverse eccentric loading of the legs.

(b) Standards of classification societies other than the ABS, and other established standards acceptable to the Commandant (CG-521), may be used.

(c) Upon submittal of the plans required by §§127.110 and 133.130 of this subchapter, the standard used in the design must be specified.

(d) If no established standard is used in the design, detailed design calculations must be submitted with the plans required by §§127.110 and 133.130 of this subchapter.

[CGD 82-004 and CGD 86-074, 62 FR 49352, Sept. 19, 1997, as amended by USCG-2007-29018, 72 FR 53966, Sept. 21, 2007; USCG-2009-0702, 74 FR 49235, Sept. 25, 2009]

§ 134.150 Liftboat-jacking systems.

(a) For this subchapter, liftboat jacking systems are vital systems and must comply with Sections 4/1.13.1 through 4/1.13.3 of the ABS’s “Rules for Building and Classing Mobile Offshore Drilling Units” as well as meet the applicable requirements of part 128 of this subchapter.

(b) Each control system for a liftboat jacking system must be designed so that loss of power, loss of pressure in the hydraulic system, or low hydraulic-fluid level will activate a visible and audible alarm at the operating station and will not result in the liftboat’s uncontrolled descent.

§ 134.160 Freeboard markings.

Freeboard markings required by §174.260 of this subchapter must be both permanently scribed or embossed and painted white or yellow on a dark background.

§ 134.170 Operating manual.

(a) Each liftboat must have aboard an operating manual approved by the Coast Guard as complying with this section.

(b) The operating manual must be available to, and written so as to be easily understood by, the crew members of the liftboat and must include the following:

(1) A table of contents and general index.

(2) A general description of the vessel, including—

(i) Major dimensions;

(ii) Tonnages; and

(iii) Load capacities for—

(A) Various cargoes;

(B) Crane hook; and

(C) Helicopter-landing deck.

(3) Designed limits for each mode of operation, including—

(i) Draft;

(ii) Air gap;

(iii) Wave height;

(iv) Wave period;

(v) Wind;

(vi) Current;

(vii) Temperatures; and

(viii) Other environmental factors.

(4) The heaviest loads allowable on deck.

(5) Information on the use of any special cross-flooding fittings and on the location of valves that may require closure to prevent progressive flooding.

(6) Guidance on preparing the vessel for heavy weather and on what to do when heavy weather is forecast, including when critical decisions or acts—such as leaving the area and heading for a harbor of safe refuge, or evacuating the vessel—should be accomplished.

(7) Guidance on operating the vessel while changing mode and while preparing the vessel to make a move, and information on how to avoid structural damage from shifting loads during heavy weather.

(8) Information on inherent operational limitations for each mode and

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on changing modes, including pre-loading instructions.

(9) Guidance on the proper procedures for discovering the flooding of a normally buoyant leg or leg pad, precautionary information concerning the effects on stability of flooded legs, and what to do upon discovering the flooding of a normally buoyant leg or leg pad.

(10) A description, a diagram, operating guidance for the bilge system, and an alternative method of dewatering.

(11) A general arrangement diagram showing the locations of—

(i) Watertight and weathertight compartments;

(ii) Openings in the hull and structure;

(iii) Vents and closures;

(iv) Shutdowns for mechanical and electrical emergencies, and for emergencies affecting ventilation;

(v) Alarms for flooding and for too-high and too-low levels;

(vi) Fire and gas detectors; and

(vii) Access to different compartments and decks.

(12) A list of shutdown locations for emergencies and guidance on restarting mechanical and electrical equipment and equipment for ventilation after shutdowns.

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(13) A diagram of the hazardous locations (if applicable).

(14) A diagram of the emergency-power system.

(15) Stability information setting forth the maximum allowable height of the center of gravity in relation to draft data, displacement, and other applicable parameters unique to the design of the unit to determine compliance with the intact and damage stability criteria, under §§174.250 and 174.255 of this chapter.

(16) Curves of form as required under §170.075(a)(3) of this chapter.

§ 134.180 Piping for fire-main suction.

(a) Except as provided by paragraph (b) of this section, suction lines must comply with §132.110 of this subchapter.

(b) Suction lines that extend below the main deck outside the hull plating and that supply the fire pump with the liftboat in the elevated mode must be metallic, unless they comply with §56.60–25(c) of this chapter for vital fresh-water and salt-water service, except that they may be of unlimited length.

PARTS 135–139 [RESERVED]