

SUBCHAPTER I-A—MOBILE OFFSHORE DRILLING UNITS

PART 107—INSPECTION AND CERTIFICATION

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AUTHORITY: 43 U.S.C. 1333; 46 U.S.C. 3306, 3307; 46 U.S.C. 3316; Department of Homeland Security Delegation No. 0170.1; §107.05 also issued under the authority of 44 U.S.C. 3507.

SOURCE: CGD 73-251, 43 FR 56802, Dec. 4, 1978, unless otherwise noted.

EDITORIAL NOTE: Nomenclature changes to part appear by USCG-2012-0832, 77 FR 59780, Oct. 1, 2012.

Subpart A—General

§ 107.01 Purpose; preemptive effect.

(a) This subchapter prescribes rules for the design, construction, equipment, inspection and operation of mobile offshore drilling units operating under the U.S. flag.

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

[CGD 73-251, 43 FR 56802, Dec. 4, 1978, as amended by USCG-2006-24797, 77 FR 33881, Jun. 7, 2012]

§ 107.01-3 Right of appeal.

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

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

§ 107.05 OMB control numbers assigned pursuant to the Paperwork Reduction Act.

(a) *Purpose.* This section collects and displays the control numbers assigned to information collection and record-keeping requirements in this subchapter by the Office of Management and Budget (OMB) pursuant to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 *et seq.*). The Coast Guard intends that this section comply with the requirements of 44 U.S.C. 3507(f) which

requires that agencies display a current control number assigned by the Director of the OMB for each approved agency information collection requirement.

(b) *Display.*

46 CFR part or section where identified or described	Current OMB control No.
§ 107.305	1625-0038
§ 107.309	1625-0038
§ 109.227	1625-0064

[49 FR 38121, Sept. 27, 1984, as amended by CGD 89-037, 57 FR 41823, Sept. 11, 1992; USCG-2004-18884, 69 FR 58348, Sept. 30, 2004]

§ 107.111 Definitions.

As used in this subchapter:

Accommodation means a cabin or other covered or enclosed place intended to carry persons.

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

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.

Column stabilized unit means a unit with the main deck connected to the underwater hull of footings by columns or caissons.

Commandant means the Commandant of the Coast Guard or his authorized representative.

District Commander means an officer of the Coast Guard who commands a Coast Guard District described in 33 CFR Part 3 or his authorized representative.

Drillship means a surface type unit with a single shipshape displacement hull.

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.

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

Free-fall launching means the method of launching a survival craft whereby the craft, with its full complement of persons and equipment on board, is released and allowed to fall into the sea without any restraining apparatus.

Headquarters means Office of the Commandant, U.S. Coast Guard, Washington, D.C. 20593-0001.

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

Industrial systems and components means any machinery or equipment except diving systems on board a mobile offshore drilling unit for use in the industrial function of the unit.

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 service means operation of a mobile offshore drilling unit on an international voyage or in waters under the jurisdiction of foreign nations or the United Nations.

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.

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

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 designated by an Officer in Charge, Marine Inspection, as a marine inspector.

Master or Person in charge means a person designated under §109.107.

Mobile offshore drilling unit or unit means a vessel, except a public vessel of the United States, capable of engaging in drilling operations for the exploitation or exploitation of subsea resources that is—

- (1) Seagoing and 300 or more gross tons and self-propelled by motor;
- (2) Seagoing and 100 or more gross tons and non-self-propelled; or
- (3) More than 65 feet in length and propelled by steam.

Muster station means the place where the crew and industrial personnel assemble before boarding a survival craft.

Non-self-propelled unit means a unit which is not self-propelled.

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

Officer in Charge, Marine Inspection means an officer of the Coast Guard who commands a Marine Inspection Zone described in 33 CFR Part 3 or his authorized representative.

Pilot boarding equipment means a pilot ladder, accommodation ladder, pilot hoist, or combination of them as required by this subchapter.

Point of access means the place on deck of a vessel where a person steps onto or off of pilot boarding equipment.

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

Retrieval means the safe recovery of survivors.

Seagoing condition means the operating condition of the unit with the personnel, equipment, fluids, and ballast necessary for safe operation on the waters where the unit operates. For bottom-bearing mobile offshore drilling units (MODU), the term also applies in the bottom-bearing mode, but the lightest seagoing condition is considered to be the highest anticipated operating condition.

Self-elevating unit means a unit with moveable legs capable of raising its hull above the surface of the sea.

Self-propelled unit means a unit that has propulsion machinery that provides for independent underway navigation.

Surface type unit means a unit with a ship shape or barge type displacement hull of single or multiple hull construction intended for operation in the floating condition.

Survival craft means a craft capable of sustaining the lives of persons in distress after abandoning the unit on which they were carried. The term includes lifeboats and liferafts, but does not include rescue boats.

Watertight means designed and constructed to withstand a static head of water without any leakage, except that *watertight equipment* means enclosed equipment so constructed that a stream of water from a hose (not less than 1 inch in diameter) under head of about 35 feet from a distance of about 10 feet, and for a period of 5 minutes, can be played on the apparatus without leakage.

Weathertight means that water will not penetrate into the unit in any sea condition, except that *weathertight equipment* means equipment so constructed or protected that exposure to a beating rain will not result in the entrance of water.

Widely-separated locations as the term applies to the location of lifeboats on self-elevating units, means locations on different sides or ends of the unit separated by sufficient distance or structure to protect the lifeboats in one location from a fire or explosion occurring at or near the lifeboats in another location on the unit. Locations across from each other at the apex of a unit with a triangular deck are not widely-separated locations unless there is a substantial solid structure between them.

[CGD 73-251, 43 FR 56802, Dec. 4, 1978, as amended by CGD 79-032, 49 FR 25455, June 21, 1984; CGD 88-070, 53 FR 34534, Sept. 7, 1988; CGD 84-069, 61 FR 25289, May 20, 1996; 63 FR 52814, Oct. 1, 1998; USCG 1999-4976, 65 FR 6503, Feb. 9, 2000]

§ 107.113 Industrial personnel.

Industrial personnel are all persons, exclusive of the required crew as set forth in the Certificate of Inspection, carried on board a mobile offshore

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drilling unit for the sole purpose of carrying out the industrial business or functions of the unit.

§ 107.115 Incorporation by reference.

(a) The standards referred to in this subchapter are incorporated by reference. The incorporation by reference was approved by the Director of the Federal Register under the provisions of 1 CFR Part 51 on November 7, 1978.

(b) The standards are on file in the FEDERAL REGISTER library and are available from the appropriate organizations whose addresses are listed below:

(1) American Bureau of Shipping, ABS Plaza, 16855 Northchase Drive, Houston, TX 77060.

(2) American National Standards Institute Standards (ANSIS), American Society of Mechanical Engineers (ASME) International, Three Park Avenue, New York, NY 10016-5990.

(3) American Petroleum Institute, 1220 L Street NW., Washington, D.C. 20005-4070.

(4) International Cargo Gear Bureau, Inc., 321 West 44th Street, New York, New York 10036, on the Internet at <http://www.icgb.com>.

(5) National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269-9101.

(6) Underwriters Laboratories, 12 Laboratory Drive, Research Triangle Park, NC 27709-3995.

[CGD 73-251, 43 FR 56802, Dec. 4, 1978]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 107.115, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.fdsys.gov.

§ 107.117 Coast Guard addresses.

When approval of the Commandant is required under this subchapter, the following addresses are to be used:

(a) For approval by Commandant (CG-CVC)—

Commandant (CG-CVC), U.S. Coast Guard, 2100 2nd St. SW., Stop 7581, Washington, DC 20593-7581.

(b) For approval by Commandant (CG-ENG)—

Commandant (CG-521), U.S. Coast Guard, 2100 2nd St. SW., Stop 7126, Washington, DC 20593-7126.

[CGD 73-251, 43 FR 56802, Dec. 4, 1978, as amended by CGD 82-063b, 48 FR 4781, Feb. 3, 1983; CGD 88-070, 53 FR 34534, Sept. 7, 1988; CGD 95-072, 60 FR 50464, Sept. 29, 1995; CGD 96-041, 61 FR 50730, Sept. 27, 1996; USCG-2009-0702, 74 FR 49232, Sept. 25, 2009]

Subpart B—Inspection and Certification

§ 107.201 Purpose.

This subpart prescribes rules for the—

(a) Original inspection and issuance of an original Certificate of Inspection required by 46 U.S.C. 3301, 3307 and 3309;

(b) Inspection for certification and renewal of a Certificate of Inspection required by 46 U.S.C. 3301, 3307, 3309;

(c) Annual and periodic inspections required by 46 U.S.C. 3308;

(d) Inspection after an accident required by 46 U.S.C. 3308; and

(e) Inspection of repairs or alterations, or both, required by 46 U.S.C. 3308 and 3313;

(f) Amendments to Certificates of Inspection;

(g) Issuance of Temporary Certificate of Inspection; and

(h) Issuance of Permit to Proceed to Another Port for Repairs.

[CGD 73-251, 43 FR 56802, Dec. 4, 1978, as amended by CGD 83-067, 49 FR 39161, Oct. 4, 1984; USCG 1999-4976, 65 FR 6503, Feb. 9, 2000]

§ 107.205 Alternate compliance.

(a) In place of compliance with other applicable provisions of this subchapter, the owner or operator of a vessel subject to plan review and inspection under this subchapter for initial issuance or renewal of a Certificate of Inspection may comply with the Alternate Compliance Program provisions of part 8 of this chapter.

(b) For the purposes of this section, a list of authorized classification societies, including information for ordering copies of approved classification society rules and supplements, is available from Commandant (CG-ENG), 2100 2nd St. SW., Stop 7126, Washington, DC 20593-7126; telephone (202) 372-1372; or fax (202) 372-1925. Approved classification society rules and supplements are

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incorporated by reference into 46 CFR 8.110(b).

[CGD 95-010, 62 FR 67536, Dec. 24, 1997, as amended by USCG-1999-5004, 64 FR 30439, June 8, 1999; USCG-2004-18884, 69 FR 58348, Sept. 30, 2004; USCG-2006-25697, 71 FR 55746, Sept. 25, 2006; USCG-2009-0702, 74 FR 49233, Sept. 25, 2009]

§ 107.211 Original Certificate of Inspection.

(a) The owner or builder of a unit applies for an inspection for an original Certificate of Inspection by submitting before construction is started:

(1) A completed Application for Inspection of U.S. Vessel, Form CG-3752, to the Officer in Charge, Marine Inspection, of the marine inspection zone in which the unit is to be constructed; and

(2) Plans and information indicating the proposed arrangement and construction of the unit to the Coast Guard in accordance with Subpart C of this part.

(b) An original Certificate of Inspection is issued if the Coast Guard finds, during the inspections conducted while the unit is being constructed, that a unit contracted for on or after January 3, 1979 meets § 107.231.

(c) An original Certificate of Inspection is issued if the Coast Guard finds that an uncertificated unit contracted for before January 3, 1979 meets the applicable requirements of this Subchapter as specified in the Navigation and Vessel Inspection Circular, “*Inspection and Certification of Existing Mobile Offshore Drilling Units*” (Appendix A). Existing structure, arrangements, materials, equipment, and facilities will be considered satisfactory so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Repairs and minor alterations may be made to the same standards as originally used. Major alterations and conversions shall be in compliance with the provisions of each subpart of this part to the satisfaction of the Officer in Charge, Marine Inspection.

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

[CGD 73-251, 43 FR 56802, Dec. 4, 1978, as amended by USCG 1999-4976, 65 FR 6503, Feb. 9, 2000]

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§ 107.215 Renewal of Certificate of Inspection.

(a) The master, owner, or agent of a certificated unit may apply for an inspection for the renewal of a Certificate of Inspection by submitting a completed Application for Inspection of U.S. Vessel, Form CG-3752, to the Officer in Charge, Marine Inspection, in or nearest to the port where the inspection will be made.

(b) The master, owner, or agent of a certificated unit operating in international service may apply for renewal of a Certificate of Inspection by submitting a completed Application for Inspection of U.S. Vessel Form CG-3752, to the appropriate Officer in Charge, Marine Inspection, at least 30 days before the expiration date that appears on the unit’s unexpired Certificate of Inspection.

(c) A Certificate of Inspection is renewed if the Coast Guard finds, during the inspection for certification, that—

(1) A unit contracted for on or after January 3, 1979 meets the requirements of this Subchapter; or

(2) A unit contracted for before January 3 1979, and issued a Certificate of Inspection under Subchapter I of this chapter, continues to meet the requirements of that subchapter and meets the applicable requirements of this subchapter as specified in Navigation and Vessel Inspection Circular, “*Inspection and Certification of Existing Mobile Offshore Drilling Units*” (Appendix A).

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

[CGD 73-251, 43 FR 56802, Dec. 4, 1978, as amended by USCG 1999-4976, 65 FR 6503, Feb. 9, 2000]

§ 107.219 Permit to proceed to another port for repairs.

(a) If a unit fails to meet the requirements in § 107.231, and the Coast Guard withholds reissuance of a Certificate of Inspection, or suspends an unexpired Certificate of Inspection, as described in § 107.279, a Permit to Proceed to Another Port for Repairs (Form CG-948) is issued by the Coast Guard if—

(1) The owner, master, person in charge, or agent makes a written request for a permit to the Officer in

Charge, Marine Inspection, that includes—

- (i) The reason the permit is requested;
- (ii) The port in which the repairs are to be made; and
- (iii) The period of time for the voyage;

(2) The Officer in Charge, Marine Inspection finds that the unit is seaworthy for the voyage.

(b) A Permit to Proceed to Another Port for Repairs states the conditions under which it was issued and is in force for the period of the voyage to the port in which the repairs are to be made.

§ 107.223 Temporary Certificate of Inspection: Period in effect.

A Temporary Certificate of Inspection, issued under 46 U.S.C. 3309 is effective until a Certificate of Inspection is issued to the unit.

[CGD 73-251, 43 FR 56802, Dec. 4, 1978, as amended by CGD 83-067, 49 FR 39161, Oct. 4, 1984]

§ 107.227 Certificate of Inspection Amendment.

The Coast Guard issues a Certificate of Inspection Amendment, Form CG-858, to a certificated unit if a requirement for equipment and data listed on the unexpired Certificate of Inspection is changed.

§ 107.231 Inspection for certification.

A unit is issued a Certificate of Inspection under §107.211 or §107.215(c) if the inspector finds the following:

- (a) The unit and its equipment comply with—
 - (1) Part 108 of this subchapter;
 - (2) Subchapter J of this chapter, Electrical Engineering;¹
 - (3) Subchapter F of this chapter, Marine Engineering;²
 - (4) Subchapter E of this chapter, Load Lines;³

¹Requirements for industrial systems and components are in Subpart 111.94 of this chapter.

²Requirements for industrial systems and components are in Subpart 58.60 of this chapter.

³Requirements for load lines are not applicable to bottom supported units when they

(5) Part 64 or Part 98 of this chapter, or both, if the unit carries marine portable tanks or portable tanks;

(6) The vessel design and equipment requirements of the oil pollution regulations (33 CFR Part 155, Subpart B);

(7) The Rules of the Road requirements for the waters in which the unit navigates, contained in—

- (i) 33 U.S.C. Chapters 3, 4, 5, or 21; and
- (ii) 33 CFR Parts 80, 85, or 86.

(8) Subchapter S of this chapter.

LIFESAIVING EQUIPMENT

(b) The survival craft and rescue boat launching appliances are in proper condition and operating properly at loads ranging from light load to full load.

(c) The lifeboats and rescue boats, including engines and release mechanisms are in proper condition and operating properly.

(d) The flotation equipment such as lifebuoys, lifejackets, immersion suits, work vests, lifefloats, buoyant apparatus, and associated equipment are in proper condition.

(e) Each inflatable liferaft and inflatable lifejacket has been serviced as required under this chapter;

(f) Each hydrostatic release unit, other than a disposable hydrostatic release unit, has been serviced as required under this chapter.

(g) The crew has the ability to effectively carry out abandonment and fire fighting procedures.

FIRE FIGHTING EQUIPMENT

(h) Each hand portable fire extinguisher and each semiportable fire extinguisher is inspected, and serviced if required, in accordance with §107.235(a).

(i) Each fixed fire-extinguishing system is inspected, and serviced if required, in accordance with §107.235(b).

(j) Each fire main system meets the testing requirements in §107.251.

(k) Each fire hose meets the testing requirements in §107.257.

CRANES

(1) The rated load test for cranes in §107.260 is met.

are being supported by, or being lowered to or raised from the seabed.

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(m) Each crane is inspected and tested in accordance with § 107.258.

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- (n) Each watertight door is operative.
- (o) Each valve with a remote control is operative.
- (p) Each means of escape on the unit is safe for the intended service.
- (q) There is not an accumulation of oil which might create a fire hazard on tank tops, decks, in drip pans, machinery spaces, and pumproom bilges.
- (r) Each accommodation space is sanitary.
- (s) The unit meet the drydocking requirement in §107.261 or the special examination in §107.265.

(t) The unit meets the equipment and data information requirements on its certificate of inspection.

(u) Each record in Subpart D of Part 109 is maintained as prescribed.

(v) Tests and inspections of the lifesaving equipment shall be carried out during the initial inspection for certification, and whenever any new item of lifesaving equipment is installed on the unit. The tests and inspections shall determine that the installation of each item of lifesaving equipment is consistent with each condition of its approval, as listed on its Coast Guard Certificate of Approval. The tests and inspections shall also 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 10 percent overload;

(2) The proper condition and operation of lifeboats and rescue boats, including engines and release mechanisms;

(3) The proper condition of flotation equipment such as lifebuoys, life-jackets, immersion suits, work vests, and associated equipment;

(4) The proper condition of distress signaling equipment, including

EPIRB's, SART's, and pyrotechnic signaling devices;

(5) The proper condition of line-throwing appliances;

(6) The proper condition and operation of embarkation and debarkation appliances, including embarkation-debarkation ladders, and alternate means of escape;

(7) The ability of the crew to effectively carry out abandonment and fire-fighting procedures; and

(8) The ability to meet the egress and survival craft launching requirements of this part.

INSTALLATION TESTS

(w) Piping for each halocarbon and inert gas extinguishing system must be tested in accordance with 46 CFR 95.16–60.

(x) Piping for each carbon dioxide extinguishing system meets the installation test in §108.449 of this chapter.

(y) Each sliding watertight door meets the installation tests in §163.001–6(b) of this chapter.

OTHER TESTS AND INSPECTIONS

(z) The unit and its equipment meet any other test or inspection deemed necessary by the inspector to determine if they are suitable for the service in which they are to be employed.

[CGD 73–251, 43 FR 56802, Dec. 4, 1978, as amended by CGD 79–023, 48 FR 51008, Nov. 4, 1983; CGD 82–075a, 49 FR 4485, Feb. 7, 1984; CGD 84–069, 61 FR 25290, May 20, 1996; 63 FR 52814, Oct. 1, 1998; USCG–2006–24797, 77 FR 33881, Jun. 7, 2012]

§ 107.235 Servicing of hand portable fire extinguishers, semi-portable fire extinguishers and fixed fire extinguishing systems.

(a) Each hand portable fire extinguisher and each semi-portable fire extinguisher on board the unit must be serviced as set out in Table 107.235 and examined for excessive corrosion and general condition.

TABLE 107.235

Type extinguisher	Test and servicing required
Soda Acid	Discharge, clean hose and inside of extinguisher thoroughly. Recharge.
Foam	Discharge, clean hose and inside of extinguisher thoroughly. Recharge.
Pump Tank (water or antifreeze)	Discharge, clean hose and inside of extinguisher thoroughly. Recharge with clean water or antifreeze.

TABLE 107.235—Continued

Type extinguisher	Test and servicing required
Cartridge operated (water, antifreeze or loaded stream).	Examine pressure cartridge and replace if end is punctured or if cartridge is otherwise determined to have leaked or to be in unsuitable condition. Remove liquid, clean hose and inside of extinguisher thoroughly. Recharge with clean water, solution, or antifreeze. Insert charged cartridge.
Carbon Dioxide	Weigh cylinders. Recharge if weight loss exceeds 10 percent. Inspect hose and nozzle to be sure they are clear.
Dry chemical (cartridge-operated type)	Examine pressure cartridge and replace if end is punctured or if cartridge is otherwise determined to have leaked or to be in unsuitable condition. Inspect hose and nozzle to see if they are clear. Insert charged cartridge. Be sure dry chemical is free-flowing (not caked) and chamber contains full charge.
Dry chemical (stored pressure type)	See that pressure gage is in operating range. If not, or if seal is broken, weigh or otherwise determine that full charge of dry chemical is in extinguisher. Recharge if pressure is low or if dry chemical is needed.

(b) Each fixed fire extinguishing system must be examined for excessive corrosion and general condition and checked and serviced as indicated, depending on the extinguishing agent used by the system.

(1) *Carbon dioxide*: Weigh cylinders. Recharge cylinder if weight loss exceeds 10 percent of the weight of the charge. Test time delays, alarms, and ventilation shutdowns with carbon dioxide, nitrogen, or other nonflammable gas as stated in the system manufacturer's instruction manual. Inspect hoses for damage or decay. Ensure that nozzles are unobstructed. Cylinders must be tested and marked, and all flexible connections on fixed carbon dioxide systems must be tested or renewed, as required by 46 CFR 147.60 and 147.65.

(2) *Halon 1301 or Halocarbon*: Recharge or replace if weight loss exceeds 5 percent of the weight of the charge or, if cylinder has a pressure gauge, recharge cylinder if pressure loss exceeds 10 percent, adjusted for temperature. Test time delays, alarms, and ventilation shutdowns with carbon dioxide, nitrogen, or other nonflammable gas as stated in the system manufacturer's instruction manual. Inspect hoses for damage or decay. Ensure that nozzles are unobstructed. Cylinders must be tested and marked, and all flexible Halon 1301 and halocarbon connections must be tested or renewed as required by 46 CFR 147.60 and 147.65 or 147.67. Note that Halon 1301 system approvals have expired, but that existing systems may be retained if they are in good and serviceable condition to the satisfaction of the Coast Guard inspector.

(3) *Inert gas*: Recharge or replace cylinder if cylinder pressure loss exceeds 5 percent of specified gauge pressure, adjusted for temperature. Test time delays, alarms, and ventilation shutdowns with carbon dioxide, nitrogen, or other nonflammable gas as stated in the system manufacturer's instruction manual. Inspect hoses for damage or decay. Ensure that nozzles are unobstructed. Cylinders must be tested and marked, and all flexible connections must be tested or renewed as required by 46 CFR 147.60 and 147.66.

(4) *Foam, except premix systems*: Discharge foam for approximately 15 seconds from a nozzle designated by the marine inspector. Discharge water from all other lines and nozzles. Submit a sample of the foam liquid to the manufacturer or its authorized representative for determination of specific gravity, pH, percentage of water dilution, and solid content and for certification as a suitable firefighting foam.

(5) *Premix aqueous film forming foam*: Remove the pressure cartridge and replace the cartridge if the seal is punctured, sampling the premix solution in accordance with the manufacturer's instructions, and replacing any cylinders that are discharged.

[CGD 73-251, 43 FR 56802, Dec. 4, 1978, as amended by CGD 84-044, 53 FR 7749, Mar. 10, 1988; USCG-2006-24797, 77 FR 33881, Jun. 7, 2012]

§ 107.251 Testing of the fire main.

Each fire main system must be opened and the pressure checked at—

- (a) The most remote outlet; and
- (b) The highest outlet.

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§ 107.257 Testing of fire hose.

Each fire hose must be subjected to a test pressure equivalent to the maximum pressure to which it may be subjected during operation. However, each fire hose must be subjected to a pressure of at least 100 p.s.i.

§ 107.258 Crane certification.

(a) The Coast Guard may accept current certificates issued by approved organizations as evidence of condition and suitability of cranes. The following organizations are approved by the Coast Guard as crane certifying authorities:

(1) American Bureau of Shipping, ABS Plaza, 16855 Northchase Drive, Houston, TX 77060.

(2) International Cargo Gear Bureau, Inc., 321 West 44th Street, New York, NY 10036, on the Internet at <http://www.icgb.com>.

(b) Crane certification must be based upon—

(1) A review of plans submitted under § 107.309; and

(2) The continuing program of tests and inspections in § 107.259.

(c) Each load test and inspection by the certifying authority must be recorded in the unit's Crane Record Book required in § 109.437.

[CGD 73-251, 43 FR 56802, Dec. 4, 1978, as amended by CGD 96-041, 61 FR 50730, Sept. 27, 1996; USCG-2000-7790, 65 FR 58461, Sept. 29, 2000; USCG-2007-29018, 72 FR 53966, Sept. 21, 2007; USCG-2008-0906, 73 FR 56510, Sept. 29, 2008]

§ 107.259 Crane inspection and testing.

(a) Each crane must be inspected and tested in accordance with Section 3 of the American Petroleum Institute (A.P.I.) *Recommended Practice for Operation and Maintenance of Offshore Cranes*, API RP 2D, First Edition (October 1972) with supplement 1, except that the rated load test must be performed in accordance with § 107.260.

(b) The tests are witnessed and the inspections are conducted by—

(1) A Coast Guard marine inspector; or

(2) The American Bureau of Shipping (A.B.S.), or the International Cargo Gear Bureau, Inc. (I.C.G.B.) for cranes under certification by these organizations.

(c) If the tests and inspections are conducted by the A.B.S. or the I.C.G.B., the surveyor shall certify that the tests and inspections were conducted in accordance with the A.P.I. specification; or modified by § 107.260.

§ 107.260 Rated load test for cranes.

(a) To meet the requirements in § 107.231(1), each crane must meet the following rated load test at both the maximum and minimum boom angles usually employed in material transfers over the side of the unit:

Rated load of assembled gear	Proof load
Less than or equal to 20 tons ...	25 pct in excess.
Greater than 20 tons but less than or equal to 50 tons.	5 tons in excess.
Greater than 50 tons	10 pct in excess.

(b) The weight of the hook, hook blocks, slings, rib, and other rigging, except the hoist rope, must be considered part of the load for the rated load test.

(c) The rated load test must be performed—

(1) When the crane is installed;

(2) Each 60 months; and

(3) After repairs or alterations to any structural component of the crane.

[CGD 73-251, 43 FR 56802, Dec. 4, 1978, as amended by USCG-1999-6216, 64 FR 53226, Oct. 1, 1999; USCG 1999-4976, 65 FR 6504, Feb. 9, 2000]

§ 107.261 Drydock or special examination.

(a) Except as provided in paragraphs (b), (c), and (d), each unit must be drydocked in the presence of a Coast Guard inspector at least once during each 24 month period after it is issued a Certificate of Inspection.

(b) If a unit is column-stabilized, it may be specially examined in lieu of drydocking in accordance with § 107.265 in the presence of a Coast Guard inspector.

(c) If a unit is self-elevating, it may be specially examined in lieu of drydocking in accordance with § 107.267 in the presence of a Coast Guard inspector.

(d) If a unit is a surface type, it may be specially examined in lieu of drydocking in accordance with § 107.265

in the presence of a Coast Guard inspector if the examination is specifically approved by the Commandant.

(e) The master, person in charge, owner, or agent of a certificated unit must notify the appropriate Officer in Charge, Marine Inspection before the unit is drydocked, or specially examined.

(f) The master, person in charge, owner, or agent of a certificated unit operating in international service must notify the appropriate Officer in Charge, Marine Inspection at least 60 days before the unit is drydocked or specially examined under §107.265 or §107.267.

§107.265 Special examination in lieu of drydocking for column stabilized units or surface type units when specifically approved by the Commandant.

(a) A column stabilized unit, or surface type unit when approved by the Commandant, must be specially examined in accordance with a plan—

(1) Submitted in accordance with paragraph (b) of this section; and

(2) Accepted by the Commandant (CG-CVC).

(b) To meet the requirements in paragraph (a) of this section, the owner or operator of the unit must submit a plan to the Coast Guard that provides the methods used to determine the condition of the hull and that contains the following information:

(1) The planned location where the unit is to be examined.

(2) The draft at which the unit is to be examined.

(3) The names of the diver or diving company selected for the examination.

(4) The method of visual presentation for the examination.

(5) The method used to clean the underwater portion of the hull.

(6) The method and location of gauging the underwater portion of the hull.

(7) The number of underwater hull fittings and number of compartments to be opened.

(8) The underwater high stress areas and the welds in those areas to be examined.

[CGD 73-251, 43 FR 56802, Dec. 4, 1978, as amended by CGD 95-072, 60 FR 50464, Sept. 29, 1995; CGD 96-041, 61 FR 50730, Sept. 27, 1996; USCG-2009-0702, 74 FR 49233, Sept. 25, 2009]

§107.267 Special examination in lieu of drydocking for self-elevating units.

(a) A self-elevating unit must be specially examined in accordance with a plan—

(1) Submitted in accordance with paragraph (b) of this section; and

(2) Approved by the Commandant (CG-CVC).

(b) To meet the requirements in paragraph (a) of this section, the owner or operator of the unit must submit a plan to the Commandant (CG-CVC) that provides for—

(1) Examination of the unit's hull while it is in the elevated position; and

(2) Examination of the supporting mat, spud cans, or footings while the unit is afloat.

(c) The plan required in paragraph (b) of this section must contain the following information:

(1) The planned location where the unit is to be examined.

(2) The methods to be used to conduct the hull examination.

(3) The method of visual presentation for examination of the underwater components.

(4) The methods of determining the condition of the underwater components.

(5) The underwater high stress areas and the welds in those areas that are to be examined.

(6) The names of the diver or diving company selected for the examination.

[CGD 73-251, 43 FR 56802, Dec. 4, 1978, as amended by CGD 95-072, 60 FR 50464, Sept. 29, 1995; CGD 96-041, 61 FR 50730, Sept. 27, 1996; USCG-2009-0702, 74 FR 49233, Sept. 25, 2009]

§ 107.269 Annual inspection.

(a) Your mobile offshore drilling unit (MODU) must undergo an annual inspection within the 3 months before or after each anniversary date, except as specified in §107.270.

(b) 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.

(c) The scope of the annual inspection is the same as the inspection for certification as specified in §107.231, except §107.231(x) and (y), but in less detail unless the cognizant OCMI finds

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deficiencies or determines that a major change has occurred since the last inspection. If deficiencies are found or a major change to the MODU has occurred, the OCMI will conduct an inspection more detailed in scope to ensure that the MODU is in satisfactory condition and fit for the service for which it is intended. If your MODU passes the annual inspection, the OCMI will endorse your current Certificate of Inspection.

(d) If the annual inspection reveals deficiencies in your MODU's maintenance, you must make any or all repairs or improvements within the time period specified by the OCMI.

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

[USCG 1999-4976, 65 FR 6504, Feb. 9, 2000, as amended by USCG-2009-0702, 74 FR 49233, Sept. 25, 2009]

§ 107.270 Periodic inspection.

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

(b) 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.

(c) The scope of the periodic inspection is the same as that for the inspection for certification, as specified in §107.231 except §107.231(x) and (y). The OCMI will insure that the MODU is in satisfactory condition and fit for the service for which it is intended. If your MODU passes the periodic inspection, the marine inspector will endorse your current Certificate of Inspection.

(d) If the periodic inspection reveals deficiencies in your MODU's maintenance, you must make any or all repairs or improvements within the time period specified by the OCMI.

(e) Nothing in this subpart limits the marine inspector from conducting such tests or inspections he or she deems

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necessary to be assured of the vessel's seaworthiness.

[USCG 1999-4976, 65 FR 6504, Feb. 9, 2000]

§ 107.271 Inspection: Alterations.

After plans are approved for alterations affecting the safety of the unit the Coast Guard conducts inspections of the affected—

- (a) Hull;
- (b) Machinery; or
- (c) Equipment.

§ 107.275 Other inspections.

When the Coast Guard receives the report required in §109.411 or §109.425, the Coast Guard conducts the following inspections of a unit to determine if the unit meets the requirements under which it was issued its original Certificate of Inspection:

- (a) An inspection after an accident.
- (b) An inspection after a defect is found that affects—
 - (1) The seaworthiness of the unit; or
 - (2) The safety or efficiency of a life-saving device, or firefighting device.
- (c) An inspection of repairs made because of an accident or a defect.

§ 107.279 Certificate of Inspection: Failure to meet requirements.

If a unit fails to meet the requirements in §107.231, the Coast Guard may—

- (a) Withhold issuance of an original Certificate of Inspection after an original inspection for certification, until the unit meets the requirements in §107.231;
- (b) Withhold renewal of the Certificate of Inspection until the MODU meets the requirements of §107.231, except §107.231(x) and (y).
- (c) Suspend a valid Certificate of Inspection after an annual or periodic inspection until the MODU meets the requirements of §107.231, except §107.231(x) and (y).
- (d) Revoke a valid Certificate of Inspection after an annual or periodic inspection if the unit operates without complying with Coast Guard orders to correct unlawful conditions.
- (e) Revoke or suspend an unexpired Certificate of Inspection;
- (f) Withhold issuance of a safety equipment certificate;

- (g) Withhold renewal of safety equipment certificate;
- (h) Suspend an unexpired safety equipment certificate;
- (i) Revoke an unexpired safety equipment certificate; and
- (j) Withhold, suspend, or revoke an exemption certificate.

[CGD 73-251, 43 FR 56802, Dec. 4, 1978, as amended by USCG-1999-6216, 64 FR 53226, Oct. 1, 1999; USCG 1999-4976, 65 FR 6504, Feb. 9, 2000]

§ 107.283 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 §§ 107.269 and 107.270 and your Certificate of Inspection must be endorsed.

[USCG 1999-4976, 65 FR 6504, Feb. 9, 2000]

Subpart C—Plan Approval

§ 107.301 Purpose.

This subpart prescribes procedures for submitting plans and specifications for plan approval and describes the information that must be submitted.

§ 107.305 Plans and information.

Each applicant for approval of plans must submit three copies of each of the following described plans, specifications, and structural calculations concerning the construction, arrangement, required equipment, and safety features of the unit:

GENERAL

- (a) Specifications.
- (b) General arrangement plan of decks, holds, inner bottoms, etc. including inboard and outboard profile.

HULL STRUCTURE¹

- (c) *Inner bottom plating and framing.

¹The asterisk (*) indicates items that are approved by the American Bureau of Shipping for vessels classed by it. Items approved by the American Bureau of Shipping are generally accepted as satisfactory unless the law or Coast Guard regulations contain requirements that are not covered by the American Bureau of Shipping.

- (d) *Midship section.
- (e) *Shell plating and framing.
- (f) *Stern, stern frame, and rudder.
- (g) *Structural deck plans for strength decks.
- (h) *Pillars and girders.
- (i) *Watertight and oiltight bulkheads.
- (j) *Foundations for main machinery and boilers.
- (k) *Arrangement of ports, doors, and airports in shell plating.
- (l) *Hatch coamings and covers in weather and watertight decks.
- (m) *Details of hinged subdivision watertight doors and operating gear.
- (n) *Scuppers and drains penetrating shell plating.
- (o) Arrangement of cranes.
- (p) For self-elevating units, column stabilized units, and units with special hull configuration, structural calculations and plans showing special structural features.

STABILITY

- (q) The plans and information required by Subchapter S of this chapter.
- (r) For vessels of 100 meters (328 feet) or more in length contracted for on or after September 7, 1990, a plan must be included which shows how visibility from the navigation bridge will meet the standards contained in § 108.801 of this subchapter.
- (s)–(u) [Reserved]

FIRE CONTROL

- (v) General arrangement plans showing, for each deck, the control stations, fire sections enclosed by fire resisting bulkheads, alarm and extinguishing systems, fire extinguishers, means of access to compartments and other decks, and the ventilation system, including location of ventilation shutdowns, positions of dampers, and the numbers identifying each system.
- (w) Ventilation diagram, including dampers and other fire control features.
- (x) Details of fire alarm systems.
- (y) Details of fixed fire extinguishing systems.

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MARINE ENGINEERING

(z) Plans required for marine engineering equipment and systems by Subchapter F of this chapter.

ELECTRICAL ENGINEERING

(aa) Plans required for electrical engineering equipment and systems by Subchapter J of this chapter.

LIFE SAVING EQUIPMENT

(bb) The location and arrangement of each lifesaving system including each embarkation deck, showing each overboard discharge and clearances from projections and obstructions in the way of launching lifeboats, rescue boats, and liferafts throughout the range of list and trim angles required under part 108, subpart E of this chapter.

(cc) The design weight of each lifeboat, rescue boat, and davit-launched liferaft when fully equipped and loaded.

(dd) Working loads of davits and winches.

(ee) Types and sizes of falls.

(ff) Manufacturer's name and identification of each item of equipment.

PERSONNEL ACCOMMODATIONS

(gg) Arrangement plans showing each accommodation space, ventilation, and means of escape.

CONSTRUCTION PORTFOLIO²

(hh) A construction portfolio must be prepared for each unit and must be approved by the Coast Guard. The portfolio must document the location and extent of application of different grades and strengths of materials and include a description of the materials and welding procedures employed and any other relevant construction information. The portfolio must contain the following:

(1) Structural plans showing areas incorporating different grades and strengths of materials. A simplified plan may be included in the portfolio if it adequately defines the different areas of application.

²This portfolio may be included in the operating manual required in § 109.121.

(2) A list of different grades or strengths of material that conform to American Bureau of Shipping (ABS) or American Society of Testing and Materials (ASTM) specifications. For materials that do not conform to ABS or ASTM specifications, complete specifications, including chemical and physical properties, special testing and any heat treatment.

(3) Each approved weld procedure for the fabrication of each structure using different grades or strengths of material and each approved weld test procedure.

(4) Information, restrictions or prohibitions regarding repairs or modifications.

OPERATING MANUAL

(ii) The operating manual required in § 109.121. If an approved manual is changed, only the pages affected by the change need be submitted if the manual is bound in such a way as to allow old pages to be removed easily and new ones inserted and if the manual has a record of page changes.

[CGD 73-251, 43 FR 56802, Dec. 4, 1978, as amended by CGD 79-023, 48 FR 51008, Nov. 4, 1983; CGD 83-071, 52 FR 6978, Mar. 6, 1987; CGD 85-099, 55 FR 32248, Aug. 8, 1990; CGD 88-032, 56 FR 35826, July 29, 1991; CGD 84-069, 61 FR 25290, May 20, 1996; 63 FR 52814, Oct. 1, 1998]

§ 107.309 Crane plans and information.

(a) Three copies of each of the following must be submitted:

(1) Stress and arrangement diagrams, bill of materials, and supporting calculations for all structural components listed in API Spec. 2C, Second Edition, February 1972 (with supplement 2).

(2) Drawings of foundations and substructures with supporting calculations for support and stability of each crane under its rated load.

(3) Plans showing the installation of the safety features required in § 108.601.

(4) Drawings of the means provided to stop motion and set brakes during a power failure.

NOTE TO § 107.309(a)(4): These plans must be submitted to the Coast Guard, if the crane is not certified. If the crane is to be certified, four copies must be sent to the American Bureau of Shipping or the International Cargo Gear Bureau, Inc.

(b) In addition to the plans and information required in paragraph (a), the following plans and information must be submitted to the Coast Guard only:

(1) One line diagrams of the electrical power circuits of the electric power crane overload protection required in Subpart 111.50 of this chapter.

(2) Diagrams of the hydraulic or pneumatic power and control systems, as required by Subpart 58.30-40 or 58.30-50 of this chapter, as applicable.

[CGD 73-251, 43 FR 56802, Dec. 4, 1978, as amended by USCG-2008-0906, 73 FR 56510, Sept. 29, 2008]

§ 107.317 Addresses for submittal of plans, specifications, and calculations.

The copies of each plan, specification, and calculation required under § 107.305 and § 107.309 must be submitted to one of the following as applicable:

(a) The Officer in Charge, Marine Inspection, in the zone in which the unit is to be built or altered.

(b) By visitors to the Commanding Officer, 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/MSC>.

(c) The American Bureau of Shipping, (ABS) ABS Plaza, 16855 Northchase Drive, Houston, TX 77060.

NOTE: For classed vessels, the American Bureau of Shipping will, upon request by the submitter, arrange to forward the plans indicated with an asterisk in § 107.305 to the Coast Guard indicating ABS's action thereon.

(d) International Cargo Gear Bureau, Inc., 321 West 44th Street, New York, NY 10036, on the internet at <http://www.icgb.com>.

[CGD 73-251, 43 FR 56802, Dec. 4, 1978, as amended by CGD 85-048b, 51 FR 15498, Apr. 24, 1986; CGD 89-025, 54 FR 19571, May 8, 1989; CGD 96-041, 61 FR 50730, Sept. 27, 1996; USCG-2000-7790, 65 FR 58461, Sept. 29, 2000; USCG-2007-29018, 72 FR 53966, Sept. 21, 2007; USCG-2008-0906, 73 FR 56510, Sept. 29, 2008; USCG-2009-0702, 74 FR 49233, Sept. 25, 2009]

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

§ 107.401 Purpose and definition.

(a) The International Convention for Safety of Life at Sea, 1974, requires one or more of the certificates described in this subpart to be carried on self-propelled vessels of 500 gross tons or over engaged in international voyages. This subpart prescribes rules for the issuance of these certificates to mobile offshore drilling units.

(b) “International voyage” has the same meaning as stated in Regulation 2(d) of part A, chapter I in the International Convention for Safety of Life at Sea, 1974. (SOLAS 74), which is: “a voyage from a country to which the present Convention applies to a port outside such country, or conversely. The Coast Guard has interpreted this definition to include the following:

(1) A voyage from a country to which SOLAS 1974 applies, to a port outside that country or the reverse;

(2) A voyage from any territory, including the Commonwealth of Puerto Rico, all possessions of the United States, and all lands held by the United States under a protectorate or mandate, whose international relations are the responsibility of a contracting SOLAS 74 government, or which is administered by the United Nations, to a port outside that territory or the reverse;

The Coast Guard has interpreted this definition to not include a “Great Lakes voyage” which means a voyage solely on the Great Lakes of North America and the St. Lawrence River west of a straight line drawn from Capedes Rosiers to West Point, Anticosti Island and, on the north side of Anticosti Island, the 63rd Meridian.

[CGD 73-251, 43 FR 56802, Dec. 4, 1978, as amended by CGD 90-008, 55 FR 30662, July 26, 1990]

§ 107.405 Safety Equipment Certificate.

(a) A self-propelled unit of at least 500 gross tons that engages in international voyages is issued a safety equipment certificate if the inspector issues it a certificate of inspection under § 107.211 or § 107.215 and it meets

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chapter 3 of the International Convention for Safety of Life at Sea, 1974.

(b) A Safety Equipment Certificate expires 60 months after the date of issue.

[CGD 73–251, 43 FR 56802, Dec. 4, 1978, as amended by CGD 90–008, 55 FR 30662, July 26, 1990; USCG 1999–4976, 65 FR 6504, Feb. 9, 2000]

§ 107.409 Safety Construction Certificate.

(a) Application for a Safety Construction Certificate is made by indicating in the space provided on the Application for Inspection Form CG–3752 whether the American Bureau of Shipping or the Coast Guard is to issue the certificate.

(b) The American Bureau of Shipping or the Coast Guard may issue a self-propelled unit of at least 500 gross tons that engages on international voyages a Safety Construction Certificate if the unit meets the requirements in Regulation 12 (a)(ii), Chapter I of the International Convention for Safety of Life at Sea, 1974.

(c) A Safety Construction Certificate expires 60 months after the date of issue.

(d) If a unit fails to meet the requirements in Regulation 12(a)(ii), the Coast Guard may—

(1) Suspend an unexpired Safety Construction Certificate; and

(2) Revoke an unexpired Safety Construction Certificate.

[CGD 73–251, 43 FR 56802, Dec. 4, 1978, as amended by CGD 90–008, 55 FR 30662, July 26, 1990]

§ 107.413 Exemption certificate.

(a) An owner or operator of a unit may request an exemption from the requirements of the International Convention for Safety of Life at Sea, 1974 (SOLAS 74) by writing to the appropriate OCMI.

(b) The Commandant (CG–CVC) may exempt a self-propelled unit of at least 500 gross tons on an international voyage from any of the requirements in the International Convention for Safety of Life at Sea, 1974 (SOLAS 74) if the unit meets the conditions of Regulation 4 of Part A, Chapter I, of SOLAS 74 which states the following:

a. A ship which is not normally engaged on international voyages but which, in exceptional circumstances, is required to undertake a single international voyage may be exempted by the Administration from any of the requirements of the present Regulations provided that it complies with safety requirements which are adequate in the opinion of the Administration for the voyage which is to be undertaken by the ship.

b. The Administration may exempt any ship which embodies features of a novel kind from any of the provisions of Chapters II–1, II–2, III and IV of these Regulations the application of which might seriously impede research into the development of such features and their incorporation in ships engaged on international voyages. Any such ship shall, however, comply with safety requirements which, in the opinion of that Administration, are adequate for the service for which it is intended and are such as to ensure the overall safety of the ship and which are acceptable to the Governments of the States to be visited by the ship. The Administration which allows any such exemption shall communicate to the Organization particulars of same and the reasons therefor which the Organization shall circulate to the Contracting Governments for their information.

(c) The Commandant (CG–CVC) may exempt a self-propelled unit of at least 500 gross tons on an international voyage from the requirements of Chapter III (Lifesaving Appliances, &C.) of SOLAS 74 if the unit meets the conditions of Regulation 2 of chapter III which states in part:

The Administration may, if it considers that the sheltered nature and conditions of the voyage are such as to render the application of any specific requirements of this chapter unreasonable or unnecessary, exempt from those requirements individual ships or classes of ships which, in the course of their voyage, do not proceed more than 20 miles from the nearest land.

(d) The Commandant (CG–CVC) may exempt a unit from the requirements of Chapters II–1 (Construction—Subdivision and stability, machinery and electrical installations) or II–2 (Construction—Fire protection, fire detection and fire extinction) of SOLAS 74 if the unit meets the conditions of Regulation 1–4 of Part A Chapter II–1 or Regulation 1–4.1 of Part A Chapter II–2, respectively, of SOLAS 74 which state the following: The Administration of a

State may, if it considers that the sheltered nature and conditions of the voyage are such as to render the application of any specific requirements of this chapter unreasonable or unnecessary, exempt from those requirements individual ships or classes of ships entitled to fly the flag of the State which, in the course of their voyage, do not proceed more than 20 miles from the nearest land.

(e) An Exemption Certificate is in force for the period of validity of the certificate to which it refers.

[CGD 73-251, 43 FR 56802, Dec. 4, 1978, as amended by CGD 90-008, 55 FR 30662, July 26, 1990; CGD 95-072, 60 FR 50464, Sept. 29, 1995; CGD 96-041, 61 FR 50730, Sept. 27, 1996; USCG-2009-0702, 74 FR 49233, Sept. 25, 2009]

§ 107.415 Safety Management Certificate.

(a) All self-propelled mobile offshore drilling units 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 company'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]

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AUTHORITY: 43 U.S.C. 1333; 46 U.S.C. 3102, 3306; Department of Homeland Security Delegation No. 0170.1.

SOURCE: CGD 73-251, 43 FR 56808, Dec. 4, 1978, unless otherwise noted.

Subpart A—General

§ 108.101 Incorporation by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a). To enforce any edition other than that specified in paragraph (b) of this section, the Coast Guard must publish notice of change in the FEDERAL REGISTER and make the material available to the public. All approved material is on file at the U.S. Coast Guard, Office of Design and Engineering Standards (CG-ENG, 2100 2nd St. SW., Stop 7126, Washington, DC 20593-7126 or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. All material is available from the sources indicated in paragraph (b) of this section.

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

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. 108.500
- ASTM F 1014-92, Standard Specification for Flashlights on Vessels 108.497
- ASTM F 1121-87 (1993), Standard Specification for International Shore Connections for Marine Fire Applications. 108.427

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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, 17 November 1983. 108.105.
Resolution A.649(16), Code for the Construction and Equipment of Mobile Offshore Drilling Units (MODU Code), 19 October 1989 with amendments of June 1991. 108.503.
Resolution A.658(16), Use and Fitting of Retro-reflective Materials on Life-saving Appliances, 20 November 1989. 108.645; 108.649.
Resolution A.760(18), Symbols Related to Life-saving Appliances and Arrangements, 17 November 1993. 108.646; 108.647; 108.649; 108.655.

National Fire Protection Association (NFPA)

1 Batterymarch Park, Quincy, MA 02269-9101.
NFPA 13-1996, Standard for the Installation of Sprinkler Systems 108.430

[88-032, 56 FR 35826, July 29, 1991, as amended by CGD 95-072, 60 FR 50464, Sept. 29, 1995; CGD 84-069, 61 FR 25290, May 20, 1996; CGD 96-041, 61 FR 50730, Sept. 27, 1996; CGD 97-057, 62 FR 51046, Sept. 30, 1997; CGD 95-028, 62 FR 51208, Sept. 30, 1997; USCG 1999-5151, 64 FR 67182, Dec. 1, 1999; USCG-2009-0702, 74 FR 49233, Sept. 25, 2009; USCG-2012-0832, 77 FR 59781, Oct. 1, 2012]

§ 108.102 Preemptive effect.

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

[USCG-2006-29747, 77 FR 33882, Jun. 7, 2012]

§ 108.103 Equipment not required on a unit.

Each item of lifesaving and fire-fighting equipment carried on board the unit in addition to equipment of the type required under this subchapter, must—

- (a) Be approved; or
(b) Be acceptable to the cognizant OCMI, for use on the unit.

[CGD 84-069, 61 FR 25291, May 20, 1996]

§ 108.105 Substitutes for required fittings, material, apparatus, equipment, arrangements, calculations, and tests.

(a) Where this subchapter requires a particular fitting, material, apparatus, equipment, arrangement, calculation or test, the Commandant (CG-ENG) may accept any substitution that is at least as effective as that specified. If necessary, the Commandant (CG-ENG) may require engineering evaluations and tests to demonstrate the equivalence of the substitution.

(b) In any case where it is shown to the satisfaction of the Commandant that the use of any particular equip-

ment, apparatus, arrangement, or test is unreasonable or impracticable, the Commandant may permit the use of alternate equipment, apparatus, arrangement, or test to such an extent and upon such condition as will insure, to his satisfaction, a degree of safety consistent with the minimum standards set forth in this subchapter.

(c) The Commandant (CG-ENG) may accept a novel lifesaving appliance or arrangement, if it provides a level of safety equivalent to the requirements of this part and 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 a unit's construction and when any modification to the lifesaving arrangement is done after construction, the 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 of the lifesaving appliances or arrangements to be inadequate.

[CGD 73-251, 43 FR 56808, Dec. 4, 1978, as amended by CGD 95-072, 60 FR 50465, Sept. 29, 1995; CGD 84-069, 61 FR 25291, May 20, 1996; USCG-2009-0702, 74 FR 49233, Sept. 25, 2009; USCG-2012-0832, 77 FR 59781, Oct. 1, 2012]

§ 108.109 Classification society standards.

(a) Any person who desires to use the rules of a classification society, other than the American Bureau of Shipping, to meet requirements in this Subchapter must request recognition of that society from the Commanding Officer, Marine Safety Center. The relevant rules must be submitted with the request.

[CGD 73-251, 43 FR 56808, Dec. 4, 1978, as amended by CGD 95-072, 60 FR 50465, Sept. 29, 1995]

Subpart B—Construction and Arrangement

HULL STRUCTURE

§ 108.113 Structural standards.

Except as provided in § 108.109, each unit must meet the structural standards of the American Bureau of Shipping's *Rules for Building and Classing Offshore Mobile Drilling Units, 1978*.

§ 108.114 Appliances for watertight and weathertight integrity.

(a) Appliances to ensure watertight integrity include watertight doors, hatches, scuttles, bolted manhole covers, or other watertight closures for openings in watertight decks and bulkheads.

(b) Appliances to ensure weathertight integrity include weathertight doors and hatches, closures for air pipes, ventilators, ventilation intakes and outlets, and closures for other openings in deckhouses and superstructures.

(c) Each internal opening fixed with appliances to ensure watertight integrity which are used intermittently during operation of the unit while afloat must meet the following:

(1) Each door, hatch, and scuttle must—

(i) Be remotely controlled from a normally manned control station, and be operable locally from both sides of the bulkhead; or

(ii) If there is no means of remote control there must be an alarm system which signals whether the appliance is open or closed both locally at each appliance and in a normally manned control station.

(2) Each closing appliance must remain watertight under the design water pressure of the watertight boundary of which it is a part.

(d) Each external opening fitted with an appliance to ensure weathertight integrity must be located so that it would not be submerged below the final equilibrium waterline if the unit is subjected simultaneously to—

(1) Damage causing flooding described in § 174.075 through § 174.085 of this chapter; and

(2) A wind heeling moment calculated in accordance with § 174.055 of this chapter using a wind velocity of 50 knots (25.8 meters per second).

[CGD 73-251, 43 FR 56808, Dec. 4, 1978, as amended by CGD 79-023, 48 FR 51008, Nov. 4, 1983]

FIRE PROTECTION: GENERAL

§ 108.123 Isolation of combustible material.

Each internal combustion engine exhaust, boiler and galley uptake, and similar heat source must be separated or insulated from combustible materials.

§ 108.127 Storage lockers for combustibles.

Each oil and paint locker must be made of steel or an equivalent material or be completely lined with steel or an equivalent material as described in § 108.131(c) of this subpart.

STRUCTURAL FIRE PROTECTION

§ 108.131 Definitions.

(a) *Standard Fire Test* means the test in which specimens of the relevant bulkheads or decks, having a surface of approximately 4.65 square meters (50 square feet) and a height of 2.44 meters (8 feet) resembling as closely as possible the intended construction and including, where appropriate, at least one joint, are exposed in a test furnace to a series of temperature relationships approximately as follows:

- (1) At the end of 5 minutes—538 °C. (1,000 °F.)
- (2) At the end of 10 minutes—704 °C. (1,300 °F.)
- (3) At the end of 30 minutes—843 °C. (1,550 °F.)
- (4) At the end of 60 minutes—927 °C. (1,700 °F.).

(b) Bulkheads and decks are defined and classed as follows:

(1) *A class bulkhead or deck* means a bulkhead or deck that—

- (i) Is made of steel or other equivalent material; and
- (ii) Prevents the passage of flame and smoke for 60 minutes if subjected to the standard fire test.

(2) *A 60 bulkhead or deck* means an A class bulkhead or deck that—

(i) Is insulated with approved insulation, bulkhead panels, or deck covering;

- (ii) If subjected to the standard fire test for 60 minutes, has an average temperature rise on the unexposed side of the insulated bulkhead or deck of less than 139 °C. (250 °F.) above the temperature before the standard fire test and has a temperature rise at any point on the unexposed surface, including any joint, of less than 180 °C. (325 °F.) above the temperature before the standard fire test.

(3) *B class bulkhead or deck* means a bulkhead or deck that—

- (i) Is made of approved noncombustible material;
- (ii) Prevents flame from passing through it for 30 minutes if subjected to the standard fire test.

(4) *C class bulkhead or deck* means a bulkhead or deck made of approved noncombustible material.

(c) *Equivalent material* means a material that by itself or with insulation

has smoke and fire retardant properties equal to that of the steel required for “A” or “B” class bulkheads or decks and has structural qualities equivalent to steel at the end of the applicable fire exposure.

(d) *Approved material* means a material approved under one of the following subparts of Subchapter Q of this chapter:

- (1) Deck coverings, Subpart 164.006.
- (2) Structural insulation, Subpart 164.007.
- (3) Bulkhead panel, Subpart 164.008.
- (4) Noncombustible materials, Subpart 164.009;
- (5) Interior finishes, Subpart 164.012.

(e) *Stairtower* means a stairway that penetrates more than one deck within the same enclosure, or two or more stairways that—

- (1) Are arranged vertically one above the other; or
- (2) Penetrate both the deck and the overhead within the same enclosure.

(f) *Accommodation space* includes, sleeping, mess, hospital, recreational, toilet, washing and shower spaces, and corridors.

§ 108.133 Hull superstructure, structural bulkheads, decks, and deckhouses.

Each hull superstructure, structural bulkhead, deck, and deckhouse must be made of steel or an equivalent material.

§ 108.135 Boundary bulkheads, decks of galleys, and combustible material lockers.

Each boundary bulkhead and deck of each galley, each combination galley and messroom, and each combustible material storage locker must be an A class bulkhead and A class deck respectively.

§ 108.137 Bulkhead and deck separations of accommodation spaces.

Each boundary bulkhead and deck that separates an accommodation space or control station from the following must be an A class bulkhead and A class deck respectively—

- (a) Machinery space;
- (b) Galley or combination galley and messroom;
- (c) Main pantry;
- (d) Classified space;

(e) Store room.

§ 108.139 Boundary bulkheads and decks of a space containing emergency power.

Each boundary bulkhead and deck of a space containing an emergency electric power source or components of an emergency electric power source must be an A class bulkhead and A class deck respectively. When separate but adjoining spaces are provided for such equipment, boundary bulkhead type construction is not required for the separating partitions common to each space.

§ 108.141 Boundary bulkheads and decks between the emergency power source and service generators.

Each boundary bulkhead and deck of a space containing an emergency electric power source or components of an emergency electric power source that adjoins a space containing a ship's service generator, the components of a ship's service generator, or a classified space must be an A-60 bulkhead and A-60 deck.

§ 108.143 Accommodation space.

(a) Each corridor bulkhead in an accommodation space must be an A class or B class bulkhead except if an A class bulkhead is specifically required by this part.

(b) No door in a corridor bulkhead in an accommodation space may have a louver, except that a stateroom, lounge, or recreation room door may have louvers in its lower half.

(c) Each stairtower, elevator, and dumbwaiter, and other trunk must be enclosed by A class bulkheads.

(d) Each bulkhead not described under paragraph (a) of this section must be either A class, B class, or C class bulkheads.

(e) At least one opening to each stairway must be enclosed by either A class or B class bulkheads and doors.

(f) Each stairtower must have doors at all levels and each must be an A class door.

(g) Each door required by paragraphs (e) and (f) of this section—

(1) Must be self-closing;

(2) May not have any means to permanently hold the door open, except

for magnetic holdbacks that are operated from the bridge or other remote location.

(h) Interior stairs, including stringers and treads, must be made of steel or an equivalent material.

(i) Except in washrooms and toilet spaces, each deck covering in an accommodation space must be made of an approved material, except an overlay on a deck for leveling or finishing that is not more than 9.375 millimeters ($\frac{3}{8}$ inch) thick.

(j) Except as provided in paragraph (l), each ceiling, lining, insulation, and pipe and duct lagging in an accommodation space must be made of an approved material that is noncombustible.

(k) Each sheathing, furring, or holding piece used to secure a bulkhead, ceiling, lining, or insulation in an accommodation space must be made of an approved material that is non-combustible.

(l) No bulkhead, lining, or ceiling in an accommodation space may have a combustible veneer greater than 2 millimeters ($\frac{1}{12}$ inch) in thickness.

(m) Each corridor or hidden space in an accommodation space may be covered by an approved interior finish or a reasonable number of coats of paint. However, no corridor or hidden space may have combustible veneer, trim, or decoration except material approved under Subpart 164.012 of this chapter.

§ 108.145 Hatches and tonnage openings.

Each hatch, except a hatch between storage spaces and each tonnage opening closure, must be made of steel or an equivalent material of the same class as the bulkhead or deck where the opening occurs.

§ 108.147 Certain paints prohibited.

No nitrocellulose or other highly flammable or noxious fume-producing paint or lacquer may be used on a unit.

MEANS OF ESCAPE

§ 108.151 Two means required.

(a) Each of the following must have at least 2 means of escape:

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(1) Each accommodation space with a deck area of at least 27 sq. meters (300 sq. ft.).

(2) Each space, other than an accommodation space, that is continuously manned or used on a regular working basis except for routine security checks.

(3) Weather deck areas where personnel may be normally employed.

(b) When two means of escape are required from a space below the main deck, one the means of escape must provide for a rapid escape through openings that are not required to be watertight by damage stability considerations.

(c) When two means of escape are required from a space above the main deck, one of the means of escape must provide for a rapid escape to a weather deck.

§ 108.153 Location of means of escape.

The required two means of escape must be through exits that minimize the possibility of having both exits blocked if a fire or other casualty occurs in the area.

§ 108.155 Restrictions on means of escape utilized.

A required means of escape may not be a vertical ladder or deck scuttle, except that one of the means of escape may be a vertical ladder or deck scuttle if a stairway would be impracticable.

§ 108.157 Locked doors.

No door to the required means of escape may be designed to lock except—

(a) A crash door or a door that has a locking device that can be easily forced, if on both sides of the door a permanent and easily seen instruction is placed; or

(b) An outside door to a deckhouse if the door can be locked by key only and if the master or person in charge has control of the key to the door's lock.

§ 108.159 Stairways and exterior inclined ladders.

Each stairway, except a stairway in a machinery or storage space, and each exterior inclined ladder must be at least 70 centimeters (28 inches) wide with an angle of inclination from the

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horizontal of not more than 50 degrees, except that special consideration may be given to the installation if a 70 centimeters (28 inch) width is impracticable.

§ 108.160 Vertical ladders.

(a) Each vertical ladder must have rungs that are—

(1) At least 41 centimeters (16 inches) in length;

(2) Not more than 30 centimeters (12 inches) apart, uniform for the length of the ladder; and

(3) At least 18 centimeters (7 inches) from the nearest permanent object in back of the ladder.

(b) Except when unavoidable obstructions are encountered, there must be at least 11.5 centimeters (4½ inches) clearance above each rung.

(c) Except as provided in § 108.540(h)(3)(ii), each exterior vertical ladder more than 6 meters (20 ft.) in length must be fitted with a cage or ladder safety device meeting ANSI Standard 14.3 (1974) for fixed ladders.

(d) No vertical fixed ladders may be made of wood.

[CGD 73–251, 43 FR 56808, Dec. 4, 1978, as amended by USCG–2002–13058, 67 FR 61279, Sept. 30, 2002]

§ 108.161 Dead end corridors.

No dead end corridor may be more than 13 meters (43 feet) long.

§ 108.165 Access to lifeboats and liferafts.

Each unit must be designed to provide direct access to the lifeboat and liferaft embarkation areas.

§ 108.167 Weather deck ladders.

Each unit must have at least one permanent, inclined ladder between each weather deck.

CLASSIFIED LOCATIONS

§ 108.170 Definitions.

(a) Classified locations are those in which flammable hydrocarbon gas or vapors, resulting from the drilling operations, may be present in quantities sufficient to produce an explosive or ignitable mixture. Location of these areas affect the design of the units'

machinery, electrical, and ventilation systems. (See Notes 1 and 2).

(b) For the purpose of this subpart “semi-enclosed location” means a location where natural conditions of ventilation are notably different from those on open decks due to the presence of structures such as roofs, windbreaks, or bulkheads.

NOTES: 1. Further requirements with respect to hazardous locations are contained in part 111, subpart 111.105, of this chapter.

2. For specific requirements for machinery and electrical installations on mobile offshore drilling units see Subchapters “F” and “J” of this chapter.

[CGD 73-251, 43 FR 56808, Dec. 4, 1978, as amended by CGD 94-108, 61 FR 28270, June 4, 1996]

§ 108.171 Class I, Division 1 locations.

The following are Class I, Division 1 locations:

(a) An enclosed space that contains any part of the mud circulating system that has an opening into the space and is between the well and final degassing discharge.

(b) An enclosed or semi-enclosed location that is below the drill floor, and contains a possible source of gas release.

(c) An enclosed space that is on the drill floor, and is not separated by a solid, gas-light floor from the spaces specified in paragraph (b) of this section.

(d) A space that would normally be considered a Division 2 location under §108.173 but where combustible or flammable gases might accumulate.

(e) A location in the weather, or a semi-enclosed location, except as provided in paragraph (b) of this section that is within 1.5 m (5 ft.) of the boundary of any—

(1) Equipment or opening specified in paragraph (a) of this section;

(2) Ventilation outlet, access, or other opening to a Class I, Division 1 space; or

(3) Gas vent outlet.

(f) Except as provided in §108.175, an enclosed space that has an opening into a Class I, Division 1 location.

§ 108.173 Class I, Division 2 locations.

The following are Class I, Division 2 locations:

(a) An enclosed space that has any open portion of the mud circulating system from the final degassing discharge to the mud suction connection at the mud pit.

(b) A location in the weather that is—

(1) Within the boundaries of the drilling derrick up to a height of 3 m (10 ft.) above the drill floor;

(2) Below the drill floor and within a radius of 3 m (10 ft.) of a possible source of gas release; or

(3) Within 1.5 m (5 ft.) of the boundaries of any ventilation outlet, access, or other opening to a Class I, Division 2 space.

(c) A location that is—

(1) Within 1.5 m (5 ft.) of a semi-enclosed Class I, Division 1 location indicated in §108.171(b); or

(2) Within 1.5 m (5 ft.) of a Class I, Division 1 space indicated in §108.171(e).

(d) A semi-enclosed area that is below and contiguous with the drill floor to the boundaries of the derrick or to the extent of any enclosure which is liable to trap gasses.

(e) A semi-enclosed derrick to the extent of its enclosure above the drill floor or to a height of 3 m (10 ft.) above the drill floor, whichever is greater.

(f) Except as provided in §108.175 an enclosed space that has an opening into a Class I, Division 2 location.

§ 108.175 Contiguous locations.

An enclosed space that has direct access to a Division 1 or Division 2 location is the same division as that location, except—

(a) An enclosed space that has direct access to a Division 1 location is not a hazardous location if—

(1) The access has self-closing gas-tight doors that form an air lock;

(2) The ventilation causes greater pressure in the space than in the Division 1 location; and

(3) Loss of ventilation overpressure activates an alarm at a manned station;

(b) An enclosed space that has direct access to a Division 1 location can be considered as a Division 2 location if—

(1) The access has a self-closing, gas-tight door that opens into the space and that has no hold-back device;

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(2) Ventilation causes the air to flow with the door open from the space into the Division 1 location; and

(3) Loss of ventilation activates an alarm at a manned control station; and

(c) An enclosed space that has direct access to a Division 2 location is not a hazardous location if—

(1) The access has a self-closing, gas-tight door that opens into the space and that has no hold-back device;

(2) Ventilation causes the air to flow with the door open from the space into the Division 2 location; and

(3) Loss of ventilation activates an alarm at a manned control station.

§ 108.177 Electrical equipment in classified locations.

Electrical equipment and devices installed in spaces made non-hazardous by the methods indicated in §108.175 must only be essential equipment.

VENTILATION

§ 108.181 Ventilation for enclosed spaces.

(a) Each enclosed space must be vented or ventilated.

(b) There must be a means to close each vent or ventilating system.

(c) Each fan in a ventilating system must have remote controls installed in accordance with part 111, subpart 111.103, of this chapter.

(d) There must be a means to close each doorway, ventilator, and annular space around each funnel or other opening to machinery, stowage, or working spaces. The means must be located outside the space.

(e) Each intake in a ventilating system must be located so as to prevent, as far as practicable, the intake of noxious fumes.

[CGD 73-251, 43 FR 56808, Dec. 4, 1978, as amended by CGD 94-108, 61 FR 28270, June 4, 1996]

§ 108.185 Ventilation for enclosed classified locations.

(a) The ventilation system for each enclosed classified location must be designed to maintain a pressure differential between the enclosed classified location and each non-classified location adjacent to the enclosed classified location, so as to prevent the discharge

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of ignitable gases into the non-classified adjacent locations.

(b) Each air intake must be outside of enclosed classified locations.

(c) Each unit must have alarms that are powered independently of the ventilation motor power and control circuitry and sound at a continuously manned station when—

(1) Gas is present in an enclosed classified location; or

(2) The ventilation system for the space is not working.

(d) Each ventilation system for enclosed classified locations must provide a complete change of air every five minutes.

[CGD 73-251, 43 FR 56808, Dec. 4, 1978, as amended by CGD 94-108, 61 FR 28270, June 4, 1996]

§ 108.187 Ventilation for brush type electric motors in classified spaces.

Ventilation for brush type electric motors in classified locations must meet N.F.P.A. 496-1974 "Standard for Purged and Pressurized Enclosures for Electrical Equipment in Hazardous Locations", except audible and visual alarms may be used if shutting down the motors may cause unsafe conditions.

ACCOMMODATION SPACES

§ 108.193 Restrictions.

(a) There must be no direct communication between the accommodation spaces and any chainlocker, stowage, or machinery space, except through solid, close-fitted doors or hatches.

(b) No access, vent, or sounding tube from a fuel or oil tank may open into any accommodation space, except that accesses and sounding tubes may open into corridors.

§ 108.195 Location of accommodation spaces.

(a) On surface type units, accommodation spaces must not be located forward of a vertical plane located at 5 percent of the unit's length aft of the stem, at the designed summer load line.

(b) On all units, the deckhead of each accommodation space must be above the deepest load line.

§ 108.197 Construction of accommodation spaces.

(a) Each sleeping, mess, recreational, or hospital space that is adjacent to or immediately above a stowage or machinery space, paint locker, drying room, washroom, toilet space, or other odor source must be made odorproof.

(b) Each accommodation space that is adjacent to or immediately above a galley, machinery space, machinery casing, boiler room, or other noise or heat source, must be protected from the heat and noise.

(c) Where the shell or an unsheathed weather deck forms a boundary of an accommodation space, the shell of deck must have a covering that prevents the formation of moisture.

(d) The deckheads of each accommodation space must be a light color.

(e) Each accommodation space in which water may accumulate must have a drain scupper located in the lowest part of the space, considering the average trim of the unit.

(f) Each public toilet space must be constructed and located so that its odors do not readily enter any sleeping, mess, recreational, or hospital space.

§ 108.199 Arrangement of sleeping spaces.

To the extent practicable, each occupation group must be berthed together in sleeping spaces arranged to minimize disturbance created by personnel leaving for or arriving from a working period.

§ 108.201 Size of sleeping spaces.

(a) No sleeping space may berth more than four persons, except that a sleeping space for personnel not regularly employed on a unit may berth up to six persons if the space meets § 108.199 and berthing of six persons in that space is authorized by the Commandant (CG-OES).

(b) Without deducting any equipment used by the occupants, each sleeping space must have for each occupant—

(1) 2.8 square meters (approximately 30 square feet) of deck area; and

(2) 6 cubic meters (approximately 210 cubic feet) of volume.

(c) Each sleeping space must have at least 191 centimeters (approximately 6

feet 3 inches) of headroom over clear deck areas.

[CGD 73-251, 43 FR 56808, Dec. 4, 1978, as amended by CGD 82-063b, 48 FR 4781, Feb. 3, 1983; CGD 95-072, 60 FR 50465, Sept. 29, 1995; CGD 96-041, 61 FR 50730, Sept. 27, 1996; USCG-2009-0702, 74 FR 49233, Sept. 25, 2009; USCG-2012-0832, 77 FR 59781, Oct. 1, 2012]

§ 108.203 Berths and lockers.

(a) Each sleeping space must have a separate berth for each occupant.

(b) No more than one berth may be placed over another.

(c) Each berth must have a framework of hard, smooth material that is not likely to corrode or harbor vermin.

(d) Each berth must be arranged to provide ample room for easy occupancy.

(e) Each berth must be at least 76 centimeters (approximately 30 inches) wide by 193 centimeters (approximately 76 inches) long.

(f) Adjacent berths must be separated by a partition that extends at least 46 centimeters (approximately 18 inches) above the sleeping surface.

(g) The bottom of a lower berth must be at least 30 centimeters (approximately 12 inches) above the deck.

(h) The bottom of an upper berth must be at least 76 centimeters (approximately 2 feet 6 inches) from the bottom of the berth below it and from the deck or any pipe, ventilating duct, or other overhead installation.

(i) Each berth must have a berth light.

(j) Each occupant of a sleeping space must have a readily accessible locker of hard, smooth material.

(k) Each locker must be at least .194 square meters (approximately 300 square inches) in cross section and 1.53 meters (approximately 60 inches) high.

§ 108.205 Wash spaces; toilet spaces; and shower spaces.

(a) For the purposes of this section—

(1) “Private facility” means a toilet, washing, or shower space that is accessible only from one single or double occupancy sleeping space;

(2) “Semi-private facility” means a toilet, washing or shower space that is accessible from either of two one-to-four person occupancy sleeping spaces; and

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(3) "Public facility" means a toilet, washing, or shower space that is not private or semi-private.

(b) Each private facility must have one toilet, one shower, and one washbasin, all of which may be in a single space.

(c) Each semi-private facility must have at least one toilet and one shower, which may be in a single space.

(d) Each room adjoining a semi-private facility must have a washbasin if a washbasin is not installed in a semi-private facility.

(e) Each unit must have enough public facilities to provide at least one toilet, one shower, and one washbasin for each eight persons who occupy sleeping spaces that do not have private or semi-private facilities.

(f) Urinals may be installed in toilet rooms, but no toilet required in this section may be replaced by a urinal.

(g) Each public toilet space and washing space must be convenient to the sleeping space that it serves.

(h) No public facility may open into any sleeping space.

(i) Each washbasin, shower, and bathtub must have hot and cold running water.

(j) Adjacent toilets must be separated by a partition that is open at the top and bottom for ventilation and cleaning.

(k) Public toilet facilities and shower facilities must be separated.

(l) Each public facility that is a toilet space must have at least one washbasin unless the only access to the toilet space is through a washing space.

(m) Each toilet must have an open front seat.

(n) Each washing space and toilet space must be so constructed and arranged that it can be kept in a clean and sanitary condition and the plumbing and mechanical appliances kept in good working order.

(o) Washbasins may be located in sleeping spaces.

§ 108.207 Messrooms.

(a) Each messroom that is not adjacent to the galley that serves it must be equipped with a steamtable.

(b) Each messroom must seat the number of persons expected to eat in the messroom at one time.

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§ 108.209 Hospital spaces.

(a) Each unit carrying twelve or more persons on a voyage of more than three days must have a hospital space.

(b) Each hospital space must be suitably separated from other spaces.

(c) No hospital space may be used for any other purpose, when used for care of the sick.

(d) An entrance to each hospital space must be wide enough and arranged to readily admit a person on a stretcher.

(e) Each berth in a hospital space must be made of metal.

(f) Each upper berth must be hinged and arranged so that it can be secured clear of the lower berth.

(g) Each hospital space must have at least one berth that is accessible from both sides.

(h) Each hospital space must have one berth for every 12 persons or portion thereof on board, who are not berthed in single occupancy rooms, but the number of berths need not exceed six.

(i) Each hospital space must have a toilet, washbasin, and bathtub or shower accessible from the hospital space.

(j) Each hospital space must have clothes lockers, a table, and seats.

§ 108.210 Hospital space not required.

(a) The hospital space required under § 108.209 is not required on a unit if one single or double occupancy sleeping space, designated and equipped as a treatment or isolation room or both is available for immediate medical use, and has—

(1) An entrance that is wide enough and arranged to readily admit a person on a stretcher;

(2) A single berth or examination table that is accessible from both sides; and

(3) A washbasin in or immediately adjacent to it.

§ 108.211 Miscellaneous accommodation spaces.

(a) Each unit must have enough facilities for personnel to wash their own clothes, including at least one tub or sink that has hot and cold running water.

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(b) Each unit must have enough equipment or space for the personnel to dry their own clothes.

(c) Each unit must have an accommodation space that can be used for recreation.

§ 108.213 Heating requirements.

(a) Each accommodation space must be heated by a heating system that can maintain at least 20 °C. (68 °F.).

(b) Radiators and other heating apparatuses must be constructed, located or shielded so as to avoid risk of—

- (1) Fire;
- (2) Danger; and
- (3) Discomfort

to the occupants of each accommodation space.

(c) Each exposed pipe in an accommodation space, leading to a radiator or other heating apparatus must be insulated.

§ 108.215 Insect screens.

(a) Accommodation spaces must be protected against the admission of insects.

(b) Insect screens must be installed when natural ventilation is provided.

RAILS

§ 108.217 Guardrails and bulwarks.

(a) Each unit must have guardrails or bulwarks along the edge of the bridge, of each deck, and of each deck opening.

(b) Each guardrail and bulwark must extend at least one meter (39.37 inches) above the deck except where this height may interfere with the normal operation of the unit, a lesser height may be approved.

(c) Removable guardrails may be installed where operating conditions warrant their use.

§ 108.219 Guardrails.

(a) Except for exposed peripheries of a freeboard or superstructure deck, each guardrail must have at least two evenly spaced courses.

(b) At exposed peripheries of a freeboard or superstructure deck, each guardrail must have at least three courses not more than 38 centimeters (15 in.) apart with the lowest course

not more than 23 centimeters (9 in.) above the deck.

(c) For a rounded gunwale, the guardrail must be at the edge of the flat of the deck.

§ 108.221 Storm rails.

Each unit must have a storm rail in the following locations:

(a) On each deckhouse side that is normally accessible.

(b) On each side of each passageway that is wider than 1.83 meters (6 feet).

(c) On at least one side of each passageway that is less than 1.83 meters (6 feet) wide.

§ 108.223 Guards on exposed equipment.

Each unit must have hand covers, guards, or rails installed on all belts, gears, shafts, pulleys, sprockets, spindles, flywheels or other reciprocating, rotating or moving parts of machinery or equipment normally exposed to contact by personnel.

HELICOPTER FACILITIES

§ 108.231 Application.

Sections 108.231 through 108.241 apply to each unit with a helicopter landing facility.

§ 108.233 Location and size.

(a) Each helicopter deck must be—

(1) At least the size of the rotor diameter of the largest single main rotor helicopter that will be used on the facility; or

(2) If tandem main rotor helicopters use the facility, at least of a size to provide a longitudinal axis of $\frac{9}{10}$ the overall length of the helicopter, and a width of $\frac{3}{4}$ of the overall length of the helicopter.

NOTE: For the purpose of paragraph (a)(2) the overall length is measured across both main rotors in the fore and aft line.

(b) Each helicopter deck must be located so as to provide clear approach/departure paths to enable the largest helicopter using the facility to operate in all weather conditions which allow helicopter operations.

§ 108.235 Construction.

(a) Each helicopter deck must be designed to accommodate the loadings

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(static and dynamic) imposed by operation and stowage of helicopters intended to use the facility as well as environmental loadings (wind, wave, water, snow, etc.) anticipated for the unit.

(b) The adequacy of each helicopter deck for the loadings required in paragraph (a) of this section must be shown by design calculations. Where the placement of a load affects the suitability of a structural member, the load must be evaluated in the most unfavorable position for each member.

(c) The analysis required in paragraph (b) of this section must be based on the dead load of the structure, existing stresses in the deck when it is an integral part of a unit's structure, and each of the following loading conditions:

(1) *Uniform distributed loading.* A loading of 2kg/m² (42 lb/ft²) applied to the helicopter deck area.

(2) *Helicopter landing impact loading.* The limit load established by the limit drop test in 14 CFR 29.725, or a load of not less than 75 percent of the helicopter maximum weight taken on a square area of 0.3×0.3 m (1 ft.×1 ft.) under each main landing gear unit applied anywhere on the helicopter deck area.

(3) *Stowed helicopter loading.* The helicopter maximum weight plus inertial forces from the helicopter due to anticipated unit motions, and applicable environmental loadings including wind loads.

(d) The landing area of each helicopter facility must—

(1) Have a non-skid surface;

(2) Have drainage facilities that prevent the collection of liquids and prevent liquids from spreading to or falling on other parts of the unit;

(3) Have recessed tie-down points; and

(4) Be free of projections, except that landing lights or other projections may be installed around the periphery of the landing deck provided they do not interfere with landing and take-off operations.

(e) The unprotected perimeter of each helicopter facility must have a safety net at least 1.5 meters (4.92 ft.) wide. The outer edge of the net must

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not extend more than 15 centimeters (6 in.) above the surface of the deck.

(f) Each helicopter facility must have both a main and an emergency access/egress route located as far apart from each other as practicable.

§ 108.237 Fuel storage facilities.

(a) Helicopter fuel storage tanks must be installed as far as practicable from—

(1) The landing area; and

(2) Each source of vapor ignition.

(b) Independent tanks must meet Subpart 58.50 of this Chapter.

(c) Marine portable fuel stowage tanks must meet Part 64 of this chapter.

(d) Each marine portable fuel stowage tank must have a means to contain fuel spills or leaks.

[CGD 73–251, 43 FR 56808, Dec. 4, 1978, as amended by USCG–1999–6216, 64 FR 53226, Oct. 1, 1999]

§ 108.239 Fuel transfer equipment.

(a) Each nozzle must be a “deadman” type.

(b) Each hose must have a storage reel.

(c) Each hose must have a static grounding device.

(d) Each electric fuel transfer pump must have a control with a fuel transfer pump operation indicator light at the pump.

(e) There must be a fuel pump shut off at each of the access routes required by §108.235(f).

(f) Each fuel transfer pump and each hose reel must have a means to contain fuel spills or leaks.

(g) Each hose must meet chapter 3 “Aircraft Fueling Hose” of National Fire Protection Association Standard for Aircraft Fuel Servicing (N.F.P.A. No. 407–1975).

§ 108.241 Visual aids.

(a) Each helicopter deck must—

(1) Have a wind direction indicator located in an unobstructed area readily visible to helicopter pilots approaching the deck;

(2) Be fitted around the perimeter with yellow and blue lights in alternate order, not more than 3 meters (10 ft.) apart; and

(3) Be marked with—

- (i) The unit's identification;
 - (ii) A continuous line 40 centimeters (16 in.) wide on the perimeter; and
 - (iii) Aiming circles as may be appropriate considering deck configuration, helicopter type, and operational requirements.
- (b) All markings must be in a contrasting color to the surface of the deck.

Subpart C—Stability

§ 108.301 Stability.

Each unit must meet the requirements in Subchapter S of this chapter that apply to Mobile Offshore Drilling Units.

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

Subpart D—Fire Extinguishing Systems

§ 108.401 Fire main system.

Each unit must have a fire main system.

§ 108.403 Fire extinguishing systems: General.

(a) Each of the following on a unit must have an approved fixed gaseous type extinguishing system:

- (1) Each paint locker, oil room, and similar space.
- (2) Each enclosed space containing internal combustion or gas turbine main propulsion machinery.
- (3) Each enclosed space containing internal combustion machinery with an aggregate power of at least 1000 B.H.P.
- (4) Each enclosed space containing a fuel oil unit, including purifiers, valves, or manifolds for main propulsion machinery or internal combustion machinery with an aggregate power of at least 1000 B.H.P.
- (5) Each enclosed ventilation system for electric motors or generators used for vital services including bilge pumps, fire pumps, or propulsion.

(b) Each space containing an oil fired boiler, the fuel oil unit or valves for the boiler, or manifolds in the line between the fuel settling tanks and the boiler on a unit must have a fixed gas

type, foam, or other approved fire extinguishing system.

[CGD 73-251, 43 FR 56808, Dec. 4, 1978, as amended by CGD 95-027, 61 FR 26008, May 23, 1996]

§ 108.403a Fire extinguishing systems: Non-vital services.

Each enclosed ventilating system for electric motors or generators not used for vital services must have an access into the system for firefighting or be protected by a fixed fire protection system.

§ 108.404 Selection of fire detection system.

(a) If a fire detector is in a space, it must provide effective detection of fires most likely to occur in the space.

(b) The fire detection system must be designed to minimize false alarms.

§ 108.405 Fire detection system.

(a) Each fire detection system and each smoke detection system on a unit must—

- (1) Be approved by the Commandant; and
- (2) Have a visual alarm and an audible alarm in the pilothouse or at a normally manned control station for the system.

(b) Each fire detection system must be divided into zones to limit the area covered by any particular alarm signal.

(c) Each visual alarm must—

- (1) Have a chart or diagram next to the alarm that shows the location of the zones in the system and that contains the instructions for operating, and testing the system;
- (2) When activated show the zone in the system where fire has been detected; and
- (3) Be in a noticeable location in the pilothouse or control station.

§ 108.407 Detectors for electric fire detection system.

(a) Each detector in an electric fire detection system must be located where—

- (1) No portion of the overhead of a space protected is more than 3 meters (10 feet) from a detector;
- (2) Beams and girders extending below the ceiling of the space protected

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and any other obstructions do not detract from the effectiveness of the detector; and

(3) Damage to the detector is unlikely to occur if it is not protected.

(b) Each detector must be set to activate at not less than 57 °C (135 °F) and at not more than 73 °C (165 °F), except that if a space normally has a high ambient temperature each detector may be set to activate at not less than 80 °C (175 °F) and not more than 107 °C (225 °F).

§ 108.409 Location and spacing of tubing in pneumatic fire detection system.

(a) All tubing in a pneumatic fire detection system must be on the overhead or within 300 millimeters (12 inches) of the overhead on a bulkhead in a location where—

(1) No portion of the overhead is more than 3.6 meters (12 feet) from the nearest point of tubing;

(2) Beams or girders extending below the ceiling or other obstructions do not detract from the effectiveness of the tubing; and

(3) Damage to the tubing, is unlikely to occur if it is not protected.

(b) If tubing in a tubing circuit is installed in an enclosed space, at least 5% of the tubing in the circuit must be exposed in the space, except that at least 7.6 meters (25 feet) of tubing must always be exposed in the space.

(c) A pneumatic fire detection system must be set to activate after approximately a 22 °C. (40 °F.) per minute increase in temperature at the center of the circuit in the system.

§ 108.411 Smoke detection system.

Each smoke accumulator in a smoke detection system must be located on the overhead of the compartment protected by the system in a location—

(a) Where no portion of the overhead of the compartment is more than 12 meters (40 feet) from an accumulator;

(b) That is no closer to the opening of a ventilator than 3 times the diameter or equivalent size of the opening.

(c) Where damage to the accumulator is unlikely to occur if it is not protected.

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§ 108.413 Fusible element fire detection system.

(a) A fusible element fire detection system may be installed.

(b) The arrangements for the system must be acceptable to the Commandant.

FIRE MAIN SYSTEM

§ 108.415 Fire pump: General.

A fire main system must have at least two independently driven fire pumps that can each deliver water at a continuous pitot tube pressure of at least 3.5 kilograms per square centimeter (approximately 50 pounds per square inch) at least two fire hose nozzles that are connected to the highest two fire hydrants on the unit. Alternative designs that meet the pressure requirement of this paragraph will be considered for column stabilized and self elevating units.

§ 108.417 Fire pump components and associated equipment.

(a) Each fire pump in a fire main system must have a relief valve on its discharge side that is set to relieve at 1.75 kilograms per square centimeter (approximately 25 pounds per square inch) in excess of the pump discharge pressure necessary to meet the pressure required in § 108.415 for the pump or 8.6 kilograms per square centimeters (approximately 125 pounds per square inch), whichever is greater. A relief valve may be omitted if the pump operating under shut off condition is not capable of developing the pressure described in § 108.415 plus 1.75 kilograms per square centimeter (25 pounds per square inch).

(b) Each fire pump in a fire main system must have a pressure gauge on its discharge side.

(c) Fire pumps may be used for other purposes. One of the required pumps must be kept available for use on the fire system at all times. If a fire pump is used in a system other than the fire main system, except for branch lines connected to the fire main for deck washing, each pipe connecting the other system must be connected to the pump discharge through a shut off valve at a manifold near the pump. If the fire pump exceeds the pressure in

§108.417(a), the pipe leading from the discharge manifold to other portions of the fire main system must have a reducing station and a pressure gauge in addition to the pressure gauge required by paragraph (b) of this section.

(d) If a fire pump has a reducing station, the relief valve required by paragraph (a) of this section for the pump and the additional pressure gauge required in paragraph (c) of this section must not be located on the discharge side of the reducing station.

(e) An oil line must not be connected to a fire pump.

[CGD 73-251, 43 FR 56808, Dec. 4, 1978, as amended by CGD 95-028, 62 FR 51208, Sept. 30, 1997]

§ 108.419 Fire main capacity.

The diameter of the fire main must be sufficient for the effective distribution of the maximum required discharge from two fire pumps operating simultaneously.

§ 108.421 Location of fire pumps and associated equipment.

Each fire pump required by §108.415, and the source of power, controls, sea connections for the fire pump, and booster pumps, if installed, must be installed in locations where, if a fire occurs in an enclosed space, all of the fire pumps on the unit are not made inoperative, except that if compliance with this requirement is impracticable, a gas type extinguishing system may be installed to protect at least one of the fire pumps, its source of power, and controls.

§ 108.423 Fire hydrants and associated equipment.

(a) A fire main system must have enough fire hydrants so that each accessible space may be sprayed with at least two spray patterns of water.

(b) In a main machinery space, except a shaft alley with no assigned space for stowage of combustibles, each spray pattern of water must be from one length of fire hose and each must be from a separate outlet. In all other spaces at least one spray pattern of water must be from one length of fire hose.

(c) No outlet on a fire hydrant may point above the horizontal.

(d) Each fire hydrant must have at least one spanner and at least one fire hose rack or reel.

§ 108.425 Fire hoses and associated equipment.

(a) Each length of fire hose in a fire main system must be—

(1) Of 1½ or 2½ inch nominal hose size diameter;

(2) Of 50 foot nominal hose size length; and

(3) Lined commercial fire hose that meets Standard 19 of the Underwriters' Laboratories, Inc., (1971 edition) or Federal Specification ZZ-H-451f.

(b) Fire station hydrant connections shall be brass, bronze, or other equivalent metal. Couplings shall either:

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

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

(c) Each nozzle for a firehose in a fire main system must be a combination solid stream and water spray firehose nozzle that is approved under subpart 162.027. Combination solid stream and water spray nozzles previously approved under subpart 162.027 of this chapter may be retained so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection.

(d) A combination solid stream and water spray firehose nozzle previously approved under subpart 162.027 of this chapter, must have a low-velocity water spray applicator also previously approved under subpart 162.027 of this chapter when installed in—

(1) Machinery spaces containing oil fired boilers, internal combustion machinery or oil fuel units; and

(2) Helicopter decks.

[CGD 73-251, 43 FR 56808, Dec. 4, 1978, as amended by CGD 95-027, 61 FR 26008, May 23, 1996; CGD 95-028, 62 FR 51208, Sept. 30, 1997]

§ 108.427 International shore connection.

A fire main system on a unit in international service must have—

(a) At least one international shore connection that meets ASTM F 1121

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(incorporated by reference, see § 105.01-3).

(b) A cutoff valve and check valve for each connection; and

(c) Facilities available enabling the connection to be used on either side of the unit.

[CGD 73-251, 43 FR 56808, Dec. 4, 1978, as amended by CGD 88-032, 56 FR 35826, July 29, 1991; USCG-2000-7790, 65 FR 58462, Sept. 29, 2000]

§ 108.429 Fire main system protection.

(a) Each pipe and fire hydrant in a fire main system must be installed to the extent practicable in locations that are not exposed to damage by materials that are moved on or onto the deck.

(b) Each part of the fire main system located on an exposed deck must either be protected against freezing or be fitted with cutout valves and drain valves to shut off and drain the entire exposed system in freezing weather.

AUTOMATIC SPRINKLING SYSTEMS

§ 108.430 General.

Automatic Sprinkler Systems shall comply with NFPA 13-1996.

[CGD 95-028, 62 FR 51208, Sept. 30, 1997]

FIXED CARBON DIOXIDE FIRE EXTINGUISHING SYSTEMS

§ 108.431 Carbon dioxide systems: General.

(a) Sections 108.431 through 108.457 apply to high pressure carbon dioxide fire extinguishing systems.

(b) Low pressure systems, that is, those in which the carbon dioxide is stored in liquid form at low temperature, must be approved by the Commandant.

(c) Each carbon dioxide system cylinder must be fabricated, tested, and marked in accordance with §§ 147.60 and 147.65 of this chapter.

[CGD 73-251, 43 FR 56808, Dec. 4, 1978, as amended by CGD 84-044, 53 FR 7749, Mar. 10, 1988]

§ 108.433 Quantity of CO₂: General.

Each CO₂ system must have enough gas to meet the quantity requirements of § 108.439 for the space requiring the greatest amount of CO₂.

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§ 108.437 Pipe sizes and discharge rates for enclosed ventilation systems for rotating electrical equipment.

(a) The minimum pipe size for the initial charge must meet table 108.441 and the discharge of the required amount of CO₂ must be completed within 2 minutes.

(b) The minimum pipe size for the delayed discharge must be at least 1.25 centimeters (½ inch) standard pipe.

(c) The pipe used for the initial discharge must not be used for the delayed discharge, except systems having a volume of less than 57 cubic meters (2,000 cubic feet).

§ 108.439 Quantity of CO₂ for protection of spaces.

(a) The number of pounds of CO₂ required to protect a space must be equal to the gross volume of the space divided by the appropriate factor from Table 108.439.

(b) If a machinery space includes a casing, the gross volume of the space may be calculated using the reductions allowed in 46 CFR 95.10-5(e).

(c) If fuel can drain from a space to an adjacent space or if two spaces are not entirely separate, the requirements for both spaces must be used to determine the amount of CO₂ to be provided and the CO₂ system must be arranged to discharge into both spaces simultaneously.

TABLE 108.439—CO₂ Supply Factors
[Gross volume of space in cubic feet]

Over	Not over	Factor
0	500	15
500	1,600	16
1,600	4,500	18
4,500	50,000	20
50,000 .....	.....	22

§ 108.441 Piping and discharge rates for CO₂ systems.

(a) The size of branch lines to spaces protected by a CO₂ system must meet Table 108.441.

(b) Distribution piping within a space must be proportioned from the supply line to give proper distribution to the outlets without throttling.

(c) The number, type, and location of discharge outlets must distribute the CO₂ uniformly throughout the space.

TABLE 108.441—CO₂ System Pipe Size

CO ₂ supply in system, kilograms (pounds)	Minimum pipe size (inches), millimeters (inches)
45 (100)	12.7 (½).
104 (225)	19.05 (¾).
136 (300)	25.4 (1).
272 (600)	31.75 (1¼).
450 (1,000)	38.10 (1½).
1,110 (2,450)	50.80 (2).
1,130 (2,500)	63.5 (2½).
2,023 (4,450)	76.2 (3).
3,229 (7,100)	88.9 (3½).
4,750 (10,000)	101.6 (4).
6,818 (15,000)	114.3 (4½).

(d) The total area of all discharge outlets must be more than 35 percent and less than 85 percent of the nominal cylinder outlet area or the area of the supply pipe, whichever is smaller. The nominal cylinder outlet area in square centimeters is determined by multiplying the factor 0.0313 by the number of kilograms of CO₂ required. (The nominal cylinder outlet area in square inches is determined by multiplying the factor 0.0022 by the number of pounds of CO₂ required). The nominal cylinder outlet area must not be less than 71 square millimeters (0.110 square inches).

(e) A CO₂ system must discharge at least 85 percent of the required amount within 2 minutes.

§ 108.443 Controls and valves.

(a) At least one control for operating a CO₂ system must be outside the space or spaces that the system protects and in a location that would be accessible if a fire occurred in any space that the system protects. Control valves must not be located in a protected space unless the CO₂ cylinders are also in the protected space.

(b) A CO₂ system that protects more than one space must have a manifold with a stop valve, the normal position of which is closed, that directs the flow of CO₂ to each protected space.

(c) A CO₂ system that protects only one space must have a stop valve installed between the cylinders and the discharge outlets in the system, except on a system that has a CO₂ supply of 136 kilograms (300 pounds) or less.

(d) At least one of the control stations in a CO₂ system that protects a machinery space must be as near as

practicable to one of the main escapes from that space.

(e) All distribution valves and controls must be of an approved type.

(f) Each CO₂ system that has a stop valve must have a remote control that operates only the stop valve and must have a separate remote control for releasing the required amount of CO₂ into the space protected by the system.

(g) Each CO₂ system that does not have a stop valve must be operated by a remote control that releases the required amount of CO₂ into the space protected by the system.

(h) Remote controls to each space must be in an enclosure.

(i) Each system must have a manual control at its cylinders for releasing CO₂ from the cylinders, except that if the system has pilot cylinders, a manual control is not required for other than pilot cylinders.

(j) If gas pressure is used to release CO₂ from a system having more than 2 cylinders, the system must have at least 2 pilot cylinders to release the CO₂ from the remaining cylinders.

(k) If the entrance to a space containing the CO₂ supply or controls of a CO₂ system has a lock, the space must have a key to the lock in a break-glass type box that is next to and visible from the entrance.

§ 108.444 Lockout valves.

(a) A lockout valve must be provided on any carbon dioxide extinguishing system protecting a space over 6,000 cubic feet in volume and installed or altered after July 9, 2013. "Altered" means modified or refurbished beyond the maintenance required by the manufacturer's design, installation, operation and maintenance manual.

(b) The lockout valve must be a manually operated valve located in the discharge manifold prior to the stop valve or selector valves. When in the closed position, the lockout valve must provide complete isolation of the system from the protected space or spaces, making it impossible for carbon dioxide to discharge in the event of equipment failure during maintenance.

(c) The lockout valve design or locking mechanism must make it obvious whether the valve is open or closed.

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(d) A valve is considered a lockout valve if it has a hasp or other means of attachment to which, or through which, a lock can be affixed, or it has a locking mechanism built into it.

(e) The master or person-in-charge must ensure that the valve is locked open at all times, except while maintenance is being performed on the extinguishing system, when the valve must be locked in the closed position.

(f) Lockout valves added to existing systems must be approved by the Commandant as part of the installed system.

[USCG-2006-24797, 77 FR 33882, Jun. 7, 2012]

§ 108.445 Alarm and means of escape.

(a) Each CO₂ system that has a supply of more than 136 kilograms (300 pounds) of CO₂, except a system that protects a tank, must have an alarm that sounds for at least 20 seconds before the CO₂ is released into the space.

(b) Each audible alarm for a CO₂ system must have the CO₂ supply for the system as its source of power and must be in a visible location in the spaces protected.

§ 108.446 Odorizing units.

Each carbon dioxide extinguishing system installed or altered after July 9, 2013, must have an approved odorizing unit to produce the scent of wintergreen, the detection of which will serve as an indication that carbon dioxide gas is present in a protected area and any other area into which the carbon dioxide may migrate. "Altered" means modified or refurbished beyond the maintenance required by the manufacturer's design, installation, operation and maintenance manual.

[USCG-2006-24797, 77 FR 33882, Jun. 7, 2012]

§ 108.447 Piping.

(a) Each pipe, valve, and fitting in a CO₂ system must have a bursting pressure of at least 420 kilograms per square centimeter (6,000 pounds per square inch).

(b) All piping for a CO₂ system of nominal size of 19.05 millimeters ($\frac{3}{4}$ inch) inside diameter or less must be at least Schedule 40 (standard weight) and all piping of nominal size over 19.05 millimeters ($\frac{3}{4}$ inch) inside diameter

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must be at least Schedule 80 (extra heavy).

(c) Each pipe, valve, and fitting made of ferrous materials in a CO₂ system must be protected inside and outside from corrosion.

(d) Each CO₂ system must have a pressure relief valve set to relieve between 168 and 196 kilograms per square centimeter (2,400 and 2,800 pounds per square inch) in the distribution manifold or other location that protects the piping when all branch line shut off valves are closed.

(e) The end of each branch line in a CO₂ system must extend at least 50 millimeters (2 inches) beyond the last discharge outlet and be closed with a cap or plug.

(f) Piping, valves, and fittings in a CO₂ system must be securely supported and protected from damage.

(g) Each CO₂ system must have drains and dirt traps located where dirt or moisture can accumulate in the system.

(h) Discharge piping in a CO₂ system may not be used for any other purpose except as part of a fire detection system.

(i) Piping in a CO₂ system that passes through accommodation spaces must not have drains or other openings within these spaces.

§ 108.449 Piping tests.

(a) Each test prescribed in (b), (c), and (d) of this section must be performed upon completion of the piping installation.

(b) When tested with CO₂ or other inert gas under a pressure of 70 kilograms per square centimeter (1000 pounds per square inch), with no additional gas introduced into the system, the leakage in the piping from the cylinders to the stop valves in the manifold must not allow a pressure drop of more than 10.5 kilograms per square centimeter (150 pounds per square inch) per minute for a 2 minute period.

(c) When tested with CO₂ or other inert gas under a pressure of 42 kilograms per square centimeter (600 pounds per square inch), with no additional gas introduced into the system, the leakage in each branch line must not allow a pressure drop of more than 10.5 kilograms per square centimeter

(150 pounds per square inch) per minute for a 2-minute period. The distribution piping must be capped within the protected space.

(d) Small independent systems protecting emergency generator rooms, lamp lockers and similar small spaces need not meet the tests prescribed in paragraphs (a) and (b) of this section if they are tested by blowing out the piping with air at a pressure of at least 7 kilograms per square centimeter (100 pounds per square inch).

§ 108.451 CO₂ storage.

(a) Except as provided in paragraph (b) of this section, each cylinder of a CO₂ system must be outside each space protected by the system and in a location that would be accessible if a fire occurred in any space protected by the system.

(b) A CO₂ system that has a CO₂ supply of 136 kilograms (300 pounds) or less may have one or more cylinders in the space protected by the system if the space has a heat detection system to activate the system automatically in addition to the remote and manual controls required by this subpart.

(c) Each space that contains cylinders of a CO₂ system must be ventilated and designed to prevent an ambient temperature of more than 54 °C. (130 °F.)

(d) Each cylinder in a CO₂ system must be securely fastened, supported, protected from damage, in an accessible location, and capable of removal from that location.

(e) Each unit must have a means for weighing cylinders of a CO₂ system.

(f) A cylinder in a CO₂ system may not be mounted in a position that is inclined more than 30° from a vertical position, except that a cylinder having flexible or bent siphon tubes may be mounted in a position that is inclined up to 80° from the vertical. The bottom of each cylinder when mounted must be at least 5 centimeters (2 inches) from the deck.

(g) If a cylinder does not have a check valve on its independent cylinder discharge, it must have a plug or

cap to close the outlet when the cylinder is moved.

[CGD 73-251, 43 FR 56808, Dec. 4, 1978, as amended by CGD 84-044, 53 FR 7749, Mar. 10, 1988]

§ 108.453 Discharge outlets.

Each discharge outlet must be of an approved type.

§ 108.455 Enclosure openings.

(a) Mechanical ventilation for spaces protected by a CO₂ system must be designed to shut down automatically when the system is activated.

(b) Each space that is protected by a CO₂ system and that has natural ventilation must have a means for closing that ventilation.

(c) Each space protected by a CO₂ system must have the following means for closing the openings to the space from outside the space:

(1) Doors, shutters, or dampers for closing each opening in the lower portion of the space.

(2) Doors, shutters, dampers or temporary means such as canvas or other material normally on board a unit may be used for closing each opening in the upper portion of the space.

§ 108.457 Pressure release.

Each air tight or vapor tight space, such as a paint locker, that is protected by a CO₂ system must have a means for releasing pressure that accumulates within the space if CO₂ is discharged into the space.

HALOGENATED GAS EXTINGUISHING SYSTEMS

§ 108.458 General.

Halogenated gas extinguishing systems may be installed if approved by the Commandant.

FOAM EXTINGUISHING SYSTEMS

§ 108.459 Number and location of outlets.

(a) A foam extinguishing system in a space must have enough outlets to spread a layer of foam of uniform thickness over the deck or bilge areas of the space.

(b) A foam extinguishing system in a space that has a boiler on a flat that is

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open to or can drain into a lower portion of the space must have enough outlets to spread a layer of foam of uniform thickness over the—

- (1) Flat; and
- (2) Deck or bilge areas of the space.

(c) A foam extinguishing system for a tank must have enough outlets to spread a layer of foam of uniform thickness over the surface of the liquid in the tank.

§ 108.461 Coamings.

Each machinery flat in a space that has a foam extinguishing system must have coamings that are high enough to retain spilled oil and foam on the flat on all openings except deck drains.

§ 108.463 Foam rate: Protein.

(a) If the outlets of a protein foam extinguishing system are in a space, the foam rate at each outlet must be at least 6.52 liters per minute for each square meter (.16 gallons per minute for each square foot) of area covered by the systems.

(b) If the outlets of a protein foam extinguishing system are in a tank, the foam rate at each outlet must be at least 4.07 liters per minute for each square meter (.1 gallon per minute for each square foot) of liquid surface in the tank.

§ 108.467 Water supply.

The water supply of a foam extinguishing system must not be the water supply of the fire main system on the unit unless when both systems are operated simultaneously—

(a) The water supply rate to the foam production equipment meets the requirements of this section; and

(b) Water supply rate to the fire hydrants required by §108.415 of this subpart allows compliance with the pressure requirement in that section.

§ 108.469 Quantity of foam producing materials.

(a) Except as provided in paragraph (b) of this section, each foam extinguishing system with outlets—

(1) In a tank must have enough foam producing material to discharge foam for at least 5 minutes at each outlet; and

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(2) In a space must have enough foam producing material to discharge foam for at least 3 minutes at each outlet.

(b) If a foam system has outlets in more than one tank or space, the system need have only enough foam producing material to cover the largest space that the system covers or, if the liquid surface of a tank covered by the system is larger, the tank with the largest liquid surface.

§ 108.471 Water pump.

Each water pump in a foam extinguishing system must be outside each machinery space in which the system has outlets and must not receive power from any of those spaces.

§ 108.473 Foam system components.

(a) Each foam agent, each tank for a foam agent, each discharge outlet, each control, and each valve for the operation of a foam extinguishing system must be approved by the Commandant.

(b) Each foam agent tank and each control and valve for the operation of a foam extinguishing system with outlets in a space must be outside the space and must not be in a space that may become inaccessible if a fire occurs in the space.

(c) Each control for a foam extinguishing system with outlets in a space must be near a main escape from the space.

§ 108.474 Aqueous film forming foam systems.

Aqueous film forming foam systems may be installed if approved by the Commandant.

§ 108.475 Piping.

(a) Each pipe, valve, and fitting in a foam extinguishing system must meet the applicable requirements in Subchapter F of this chapter.

(b) Each pipe, valve, and fitting made of ferrous material must be protected inside and outside from corrosion.

(c) Each pipe, valve, and fitting must have support and protection from damage.

(d) Each foam extinguishing system must have enough—

(1) Dirt traps to prevent the accumulation of dirt in its pipes; and

(2) Drains to remove liquid from the system.

(e) Piping in a foam extinguishing system must be used only for discharging foam.

§ 108.477 Fire hydrants.

(a) If a fixed foam extinguishing system has outlets in a main machinery space, at least 2 fire hydrants, in addition to the fire hydrants required by §108.423 of this subpart, must be installed outside the entrances to the space with each at a separate entrance.

(b) Each hydrant must have enough hose to spray any part of the space.

(c) Each hydrant must have a combination nozzle and applicator.

FIRE PROTECTION FOR HELICOPTER FACILITIES

§ 108.486 Helicopter decks.

At least two of the accesses to the helicopter landing deck must each have a fire hydrant on the unit's fire main system located next to them.

§ 108.487 Helicopter deck fueling operations.

(a) Each helicopter landing deck on which fueling operations are conducted must have a fire protection system that discharges protein foam or aqueous film forming foam.

(b) a system that only discharges foam must—

(1) Have enough foam agent to discharge foam continuously for at least 5 minutes at maximum discharge rate;

(2) Have at least the amount of foam agent needed to cover an area equivalent to the swept rotor area of the largest helicopter for which the deck is designed with foam at—

(i) If protein foam is used, 6.52 liters per minute for each square meter (.16 gallons per minute for each square foot) of area covered for five minutes;

(ii) If aqueous film forming foam is used, 4.07 liters per minute for each square meter (.1 gallons per minute for each square foot) of area covered for five minutes; and

(3) Be capable of discharging from each hose at 7 kilograms per square centimeter (100 pounds per square inch) pressure—

(i) A single foam stream at a rate of at least 340 liters (90 gallons) per minute; and

(ii) A foam spray at a rate of at least 190 liters (50 gallons) per minute.

(c) Each system must have operating controls at each of its hose locations, be protected from icing and freezing, and be capable of operation within 10 seconds after activation of its controls.

(d) Each system must have at least one hose at each of the two access routes required by §108.235(f) of this part. Each hose must be reel mounted and long enough to cover any point on the helicopter deck. Each hose that discharges foam must have a nozzle that has foam stream, foam spray, and off positions.

§ 108.489 Helicopter fueling facilities.

(a) Each helicopter fueling facility must have a fire protection system that discharges one of the following agents in the amounts prescribed for the agents over the area of the fuel containment systems around marine portable tanks, fuel transfer pumps and fuel hose reels:

(1) Protein foam at the rate of 6.52 liters per minute for each square meter (.16 gallons per minute for each square foot) of area covered for five minutes.

(2) Aqueous film forming foam at the rate of 4.07 liters per minute for each square meter (.1 gallon per minute for each square foot) of area covered for five minutes.

(3) 22.5 kilograms (50 pounds) of dry chemical (B-V semi-portable) for each fueling facility of up to 27.87 square meters (300 square feet).

(b) If the fire protection system required by §108.487 of this subpart is arranged so that it covers both a helicopter fueling facility and a landing deck, the system must have the quantity of agents required by this section in addition to the quantity required by §108.487.

HAND PORTABLE AND SEMI-PORTABLE FIRE EXTINGUISHING SYSTEMS

§ 108.491 General.

Each hand portable and semiportable fire extinguisher on a unit must be approved under Subpart 162.028 or 162.039 of this chapter.

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§ 108.493 Location.

(a) Each unit must have the hand portable and semiportable fire extinguishers prescribed in Table 108.495(a) of this subpart and installed in the locations prescribed in the table.

(b) Each portable and semi-portable fire extinguisher must be visible and readily accessible.

(c) The location, size, and number of each portable and semiportable fire extinguisher on a unit must be acceptable to the appropriate OCMI. The OCMI may require extinguishers in addition to those prescribed in Table 108.495(a) if he considers them necessary for fire protection on the unit.

(d) Each hand portable and semiportable fire extinguisher that has a nameplate which states that it is to be protected from freezing, must be located where freezing temperatures do not occur.

§ 108.495 Spare charges.

(a) Each unit must have enough spare charges for 50 percent of the hand portable fire extinguishers required under Table 108.495(a) of this subpart that are rechargeable by personnel on the unit.

(b) If a unit has extinguishers that cannot be recharged by personnel on unit, it must also have at least one spare extinguisher for each classification and variety of those extinguishers.

TABLE 108.495(a)—HAND PORTABLE FIRE EXTINGUISHERS AND SEMI-PORTABLE FIRE-EXTINGUISHING SYSTEMS

Space	Classification (see table 108.495(b))	Quantity and location
SAFETY AREAS		
Wheelhouse and control room	C-I	2 in vicinity of exit.
Stairway and elevator enclosure .....	.....	None required.
Corridors	A-II	1 in each corridor not more than 150 ft (45 m) apart. (May be located in stairways.)
Lifeboat embarkation and lowering stations .....	.....	None required.
Radio room	C-I	2 in vicinity of exit.
ACCOMMODATIONS		
Staterooms, toilet spaces, public spaces, offices, lockers, small storerooms, and pantries, open decks, and similar spaces.	.....	None required.
SERVICE SPACES		
Galleys	B-II or C-II	1 for each 2,500 ft ² (232 m ²) or fraction thereof suitable for hazards involved.
Paint and lamp rooms	B-II	1 outside each room in vicinity of exit.
Storerooms	A-II	1 for each 2,500 ft ² (232 m ²) or fraction thereof located in vicinity of exits, either inside or outside the spaces.
Work shop and similar spaces	C-II	1 outside each space in vicinity of an exit.
MACHINERY SPACES		
Oil-fired boilers: Spaces containing oil-fired boilers, either main or auxiliary, or their fuel oil units.	B-II	2 required in each space.
Internal combustion or gas turbine propelling machinery spaces.	B-V	1 required in each space.
	B-II	1 for each 1,000 brake horsepower but not less than 2 nor more than 6 in each space.
	B-III	1 required in each space. See note 1.
	C-II	1 for each motor or generator.
Motors or generators of electric propelling machinery that do not have an enclosed ventilating system.	.....	None required.
Motors and generators of electric propelling machinery that have enclosed ventilating systems.	.....	None required.
AUXILIARY SPACES		
Internal combustion engines or gas turbine	B-II	Outside the space containing engines or turbines in vicinity of exit.
Electric emergency motors or generators	C-II	1 outside the space containing motors or generators in vicinity of exit.
Steam driven auxiliary machinery .....	.....	None required.
Trunks to machinery spaces .....	.....	Do.
Fuel tanks .....	.....	Do.
MISCELLANEOUS AREAS		
Helicopter landing decks	B-V	1 at each access route.

TABLE 108.495(a)—HAND PORTABLE FIRE EXTINGUISHERS AND SEMI-PORTABLE FIRE-EXTINGUISHING SYSTEMS—Continued

Space	Classification (see table 108.495(b))	Quantity and location
Helicopter fueling facilities	B-IV	1 at each fuel transfer facility. See note 2.
Drill floor	C-II	2 required.
Cranes with internal combustion engines	B-II	1 required.

Notes: 1. Not required where a fixed gas extinguishing system is installed.
 2. Not required where a fixed foam system is installed in accordance with § 108.489 of this subpart.

TABLE 108.495(b)

	Classification: Type and size	Water liters (gallons)	Foam liters (gallons)	Carbon dioxide kilograms (pounds)	Dry chemical kilograms (pounds)	Halon 1211 kilograms (pounds)
A	II	9.5 (2½)	9.5 (2½) .....	.....	2.25 (5) ³ .	
B	I .....	.....	4.7 (1¼)	1.8 (4)	0.9 (2)	1.1 (2½)
B	II .....	.....	9.5 (2½)	6.7 (15)	4.5 (10)	4.5 (10) ⁵
B	III .....	.....	45.5 (12)	15.8 (35)	9.0 (20).	
B	IV .....	.....	7.6 (20)	22.5 (50)	13.5 (30).	
B	V .....	.....	152 (40)	45 (100) ⁴	22.5 (50) ⁴ .	
C	I .....	.....	.....	1.8 (4)	0.9 (2).	
C	II .....	.....	.....	6.7 (15)	4.5 (10).	
C	III .....	.....	.....	15.8 (35)	9.0 (20).	
C	IV .....	.....	.....	22.5 (50)	13.5 (30).	

NOTE: 1. Fire extinguishers are designed by type as follows: (a) "A" for fires in combustible materials such as wood. (b) "B" for fires in flammable liquids and greases. (c) "C" for fires in electrical equipment.
 2. Fire extinguishers are designated by size where size "I" is the smallest and size "V" is the largest. Sizes "I" and "II" are hand-portable extinguishers and sizes "III", "IV", and "V" are semiportable extinguishers.
 3. Must be specifically approved as a type A, B, or C extinguisher.
 4. For outside use, double the quantity of agent that must be carried.
 5. For outside use only.

§ 108.496 Semiportable fire extinguishers.

(a) The frame or support of each size III, IV, and V fire extinguisher required by Table 108.495(a), except a wheeled size V extinguisher provided for a helicopter landing deck, must be welded or otherwise permanently attached to a bulkhead or deck.

(b) If the following semiportable fire extinguishers have wheels, they must be securely stowed when not in use to prevent them from rolling out of control under heavy sea conditions:

- (1) Each size V extinguisher required for a helicopter landing deck.
- (2) Each size III, IV, and V extinguisher that is not required by Table 108.495(a).

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

MISCELLANEOUS FIREFIGHTING EQUIPMENT

§ 108.497 Fireman's outfits.

Each unit must have at least 2 fireman's outfits. Each fireman's outfit on a unit must consist of—

(a) A pressure-demand, open-circuit, self-contained breathing apparatus, approved by the Mine Safety and Health Administration (MSHA) and by the National Institute for Occupational Safety and Health (NIOSH) and having at a minimum a 30-minute air supply, a full facepiece, and a spare charge; but a self-contained compressed-air breathing apparatus previously approved by MSHA and NIOSH under part 160, subpart 160.011, of this chapter may continue in use as required equipment if it was part of the vessel's equipment on November 23, 1992, and as long as it is maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection;

(b) A Type II or Type III flashlight constructed and marked in accordance with ASTM F 1014 (incorporated by reference, see § 108.101).

(c) An oxygen and explosive meter with the Underwriter's Laboratories, Inc. label or the Factory Mutual label;

(d) A lifeline that—
 (1) Is attached to a belt or a suitable harness;

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(2) Is made of bronze wire rope, inherently corrosion resistant steel wire rope, or galvanized or tinned steel wire rope;

(3) Is made up of enough 15.2 meters (50 foot) or greater lengths of wire rope to permit use of the outfit in any location on the unit;

(4) Has each end fitted with a hook with a 16 millimeters ($\frac{5}{8}$ inch) throat opening for the keeper; and

(5) Has a minimum breaking strength of 680 kilograms (1,500 pounds).

(e) Boots and gloves that are made of rubber or other electrically non-conductive material;

(f) A helmet that meets the requirements in ANSI standard Z-89.1-1969; and

(g) Clothing that protects the skin from scalding steam and the heat of fire and that has a water resistant outer surface.

[CGD 73-251, 43 FR 56808, Dec. 4, 1978, as amended by CGD 82-042, 53 FR 17705, May 18, 1988; CGD 86-036, 57 FR 48326, Oct. 23, 1992; USCG 1999-5151, 64 FR 67182, Dec. 1, 1999]

§ 108.499 Fire axes.

Each unit must have at least two fire axes.

Subpart E—Lifesaving Equipment

SOURCE: CGD 84-069, 61 FR 25291, May 20, 1996, unless otherwise noted.

§ 108.500 General.

(a) Each unit, other than a drillship, must meet the requirements in this subpart.

(b) Each drillship must meet the lifesaving system requirements in subchapter W of this chapter for a tank vessel certificated to carry cargoes that have a flash point less than 60 °C as determined under ASTM D 93 (incorporated by reference, see § 108.101).

(c) The OCMI may require a unit to carry specialized or additional lifesaving equipment other than as required by this part, if the OCMI determines the conditions of the unit's service present uniquely hazardous cir-

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cumstances which are not adequately addressed by existing requirements.

[CGD 84-069, 61 FR 25291, May 20, 1996, as amended at 63 FR 52814, Oct. 1, 1998; USCG 1999-5151, 64 FR 67182, Dec. 1, 1999]

§ 108.503 Relationship to international standards.

For the purposes of this part, any unit carrying a valid IMO MODU Safety Certificate, including a listing of lifesaving equipment as required by the 1989 IMO MODU Code, is considered to have met the requirements of this subpart if, in addition to the requirements of the 1989 IMO MODU Code, it meets the following requirements:

(a) Each new lifeboat and launching appliance may be of aluminum construction only if its stowage location is protected with a water spray system in accordance with § 108.550(d) of this chapter.

(b) Each lifejacket, immersion suit, and emergency position indicating radiobeacon (EPIRB) must be marked with the unit's name in accordance with §§ 108.649 and 108.650.

(c) Inflatable lifejackets, if carried, must be of the same or similar design as required by § 108.580(b).

(d) Containers for lifejackets, immersion suits, and anti-exposure suits must be marked as specified in § 108.649(g).

(e) Each liferaft must be arranged to permit it to drop into the water from the deck on which it is stowed as required in § 108.530(c)(3).

(f) Survival craft must be arranged to allow safe disembarkation onto the unit after a drill in accordance with § 108.540(f).

(g) The requirements for guarding of falls in §§ 108.553 (d) and (f) must be met.

(h) The winch drum requirements described in § 108.553(e) must be met for all survival craft winches, not just multiple drum winches.

(i) The maximum lowering speed requirements from §§ 108.553 (h) and (i) must be met.

(j) An auxiliary line must be kept with each line-throwing appliance in accordance with § 108.597(c)(2).

(k) Immersion suits are required on all units, except those operating between the 32 degrees north and 32 degrees south latitude in accordance with §108.580(c).

(1) All abandonment drills conducted on units carrying immersion suits must include immersion suits.

§ 108.510 Application.

(a) For the purposes of this subpart—

(1) *Similar stage of construction* means the stage at which—

(i) Construction identifiable with a specific unit begins; and

(ii) Assembly of that unit comprising at least 50 metric tons (55.1 U.S. tons) or 1 percent of the estimated mass of all structural material, whichever is less, has been achieved.

(2) *Unit constructed* means a unit, the keel of which is laid or which is at a similar stage of construction.

(b) Subject to §108.515, each unit constructed before October 1, 1996, must meet the requirements of this subpart, except for the number, type, and arrangement of lifeboats (including survival capsules), lifeboat davits, winches, inflatable liferafts, liferaft launching equipment, and rescue boats.

(c)(1) If a District Commander determines that the overall safety of the persons on board a unit will not be significantly reduced, the District Commander may grant an exemption from compliance with a provision of this part to a specific unit for a specified geographic area within the boundaries of the Coast Guard District. This exemption may be limited to certain periods of the year.

(2) Requests for exemption under this paragraph must be in writing to the OCMI for transmission to the District Commander in the area in which the unit is in service or will be in service.

(3) If the exemption is granted by the District Commander, the OCMI will endorse the unit's Certificate of Inspection with a statement describing the exemption.

§ 108.515 Requirements for units built before October 1, 1996.

(a) Units which were constructed prior to October 1, 1996, must—

(1) By October 1, 1997, have either—

(i) Lifeboats and liferafts that meet §108.525; or

(ii) Totally enclosed fire-protected lifeboats of sufficient capacity to accommodate 100 percent of the persons permitted on board, plus additional totally enclosed lifeboats or davit-launched liferafts of sufficient capacity to accommodate 100 percent of the persons permitted on board the unit. The following exceptions apply:

(A) An open lifeboat may be used instead of davit-launched liferafts as long as it is in good working order. An open lifeboat requiring extensive repairs must be replaced with either a totally enclosed fire-protected lifeboat, or davit-launched liferafts.

(B) A submersible unit constructed before January 3, 1979, may continue to use the lifesaving arrangements described on the units Certificate of Inspection in effect on October 1, 1996.

(2) By October 1, 1997, fit retro-reflective material on all floating appliances, lifejackets, and immersion suits.

(3) Except for the requirements in paragraphs (a)(1) and (a)(2) of this section, units may retain the arrangement of lifesaving appliances previously required and approved for the unit, as long as the arrangement or appliance is maintained in good condition to the satisfaction of the OCMI.

(b) When any lifesaving appliance or arrangement on a unit subject to this part is replaced, or when the unit 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 unit cannot accommodate the new appliance or arrangement, except that—

(1) A survival craft is not required to meet the requirements of this part if it is replaced without replacing its davit and winch; and

(2) A davit and its winch are not required to meet the requirements of this part if one or both are replaced without replacing the survival craft.

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§ 108.520 Type of survival craft.

(a) Each lifeboat must be a fire-protected lifeboat approved under approval series 160.035. A lifeboat of aluminum construction in the hull or canopy must be protected in its stowage position by a water spray system meeting the requirements of part 34, subpart 34.25 of this chapter.

(b) Each inflatable liferaft must be approved under approval series 160.151. Each rigid liferaft must be approved under approval series 160.118. Each liferaft must have a capacity of six persons or more.

[CGD 84–069, 61 FR 25291, May 20, 1996, as amended by USCG–2006–25697, 71 FR 55746, Sept. 25, 2006]

§ 108.525 Survival craft number and arrangement.

(a) Each unit must carry the following:

(1) Lifeboats installed in at least two widely separated locations on different sides or ends of the unit. The arrangement of the lifeboats must provide sufficient capacity to accommodate the total number of persons permitted on board if—

(i) All the lifeboats in any one location are lost or rendered unusable; or

(ii) All the lifeboats on any one side or end of the unit are lost or rendered unusable.

(2) Liferafts arranged for float-free launching and having an aggregate capacity that will accommodate the total number of persons permitted on board.

(b) In the case of a self-elevating unit where, due to its size or configuration, lifeboats can not be located in the widely separated locations required under paragraph (a)(1) of this section, the OCMI may accept the following number and arrangement of survival craft:

(1) Lifeboats with an aggregate capacity to accommodate the total number of persons permitted on board.

(2) Liferafts served by launching appliances or marine evacuation systems of an aggregate capacity to accommodate the total number of persons permitted on board. These liferafts may be the float-free liferafts under paragraph (a)(2) of this section, or liferafts in addition to the float-free liferafts.

§ 108.530 Stowage of survival craft.

(a) *General.* Each survival craft required to be served by a launching appliance or marine evacuation system must be stowed as follows:

(1) Each survival craft must be stowed 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 stowed as near the water surface as is safe and practicable.

(4) Each survival craft must be stowed where the survival craft, in the embarkation position, is above the waterline with the unit—

(i) In the fully loaded condition; and

(ii) Listed up to 20 degrees either way, or to the angle where the unit'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 subpart.

(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 a davit-launched liferaft may be lifted by a manually powered winch from its stowed position to its embarkation position.

(b) *Additional lifeboat-specific stowage requirements.* In addition to meeting the requirements of paragraph (a) of this section, each lifeboat must be stowed as follows:

(1) The unit must be arranged so each lifeboat, in its stowed position, is protected from damage by heavy seas.

(2) Each lifeboat must be stowed attached to its launching appliance.

(3) Each lifeboat must be provided a means for recharging the lifeboat batteries from the unit's power supply at a supply voltage not exceeding 50 volts.

(c) *Additional liferaft-specific 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. Each liferaft without an indicated maximum stowage height must be stowed not more than 18 meters (59 feet) above the waterline in the unit'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.

(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 list limits specified in paragraph (a)(4)(ii) of this section;
- (ii) By unit 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 unit 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 unit. A hydrostatic release unit used in a float-free arrangement

must be approved under approval series 160.162.

§ 108.540 Survival craft muster and embarkation arrangements.

(a) 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.

(b) Each muster station and embarkation station must be readily accessible from accommodation and work areas.

(c) Each lifeboat must be arranged to be boarded and launched directly from the stowed position.

(d) Each lifeboat must be arranged to be boarded by its full complement of persons within 3 minutes from the time the instruction to board is given.

(e) Each davit-launched and free-fall survival craft muster station and embarkation station for a survival craft which is boarded before it is launched must be arranged to enable stretcher cases to be placed in the survival craft.

(f) Means must be provided for bringing each davit-launched survival craft against the side of the unit and holding it alongside to allow persons to be—

- (1) Safely embarked in the case of a survival craft intended to be boarded over the edge of the deck; and
- (2) Safely disembarked after a drill in the case of a survival craft not intended to be moved to the stowed position with a full complement of persons on board.

(g) Each davit-launched liferaft launching arrangement must have a means to hold the liferaft in the embarkation position that—

- (1) Will hold the liferaft securely in high winds;
- (2) Can be rapidly engaged in the proper position for boarding; and
- (3) Can be rapidly released for launching by one person from within the loaded liferaft.

(h) Each launching station or each two adjacent launching stations must have an embarkation ladder as follows:

- (1) Each embarkation ladder must be approved under approval series 160.117 or be a rope ladder approved under approval series 160.017, and must be installed in a way that—

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(i) Each embarkation ladder must extend in a single length, from the deck to the waterline in the lightest seagoing condition with the unit listed not less than up to 15 degrees either way; or

(ii) 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 unit.

(2) An embarkation ladder is not required if—

(i) The distance from the embarkation deck to the unit's lightest operating waterline is less than 3 meters (10 feet); and

(ii) The unit is not in international service.

(3) If the embarkation ladders cannot be supported against a vertical flat surface, the unit must instead be provided with at least two widely-separated fixed metal ladders or stairways extending from the deck to the surface of the water and meet the following:

(i) Each inclined fixed ladder must meet the requirements under §108.159.

(ii) Each vertical fixed ladder must meet the requirements under §108.160 for fixed ladders, except that the vertical bars in cages must be open at least 500 millimeters (20 inches) on one side throughout the length of the ladder, and cages are not required in the area subject to wave action or on ladders inside the legs of a self-elevating unit.

(iii) If a fixed ladder cannot be installed, the OCMI may accept an alternate means of embarkation with sufficient capacity for all persons permitted on board to safely descend to the waterline.

(4) Alternate means of embarkation under paragraphs (h)(1)(ii) and (h)(3) of this section, such as portable slides, safety booms, moveable ladders, elevators, and controlled descent devices, must be acceptable to the OCMI. An alternate means of embarkation must have sufficient capacity to permit persons to safely descend to the waterline at a rate comparable to the device

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which the alternate means of embarkation replaces.

[CGD 84-069, 61 FR 25291, May 20, 1996, as amended at 63 FR 52814, Oct. 1, 1998]

§ 108.545 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 unit into the inflated liferafts within a period of 10 minutes from the time the signal to abandon the unit 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.

(4) Each marine evacuation system must be capable of being deployed from the unit under unfavorable conditions of list of up to 20 degrees.

(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 unit is upright and in the lightest seagoing condition.

(6) Each marine evacuation system platform must be capable of being restrained by a bowsing 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 unit's side at the unit's waterline in the lightest seagoing condition.

(2) The marine evacuation system must be protected from any projections of the unit's structure or equipment.

(3) 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.

(4) 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 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 §108.530.

(4) Each inflatable liferaft used in conjunction with the marine evacuation system must be provided with pre-connected or easily connected retrieving lines to the platform.

§ 108.550 Survival craft launching and recovery arrangements: General.

(a)(1) Each launching appliance must be a davit approved under 46 CFR part 160, subpart 160.132 for use with the intended craft, with a winch approved under 46 CFR part 160, subpart 160.115 for use with the intended craft.

(2) Each launching appliance for a davit-launched liferaft must include an automatic disengaging apparatus approved under 46 CFR part 160, subpart 160.170 and be either—

(i) A launching appliance described in paragraph (a)(1) of this section; or

(ii) A launching appliance approved on or before November 10, 2011 under approval series 160.163.

(b) All lifeboats required for abandonment by the total number of persons permitted on board must be capable of being launched with their full complement of persons and equipment within 10 minutes from the time the signal to abandon the unit is given.

(c) Each survival craft must be arranged to clear each leg, column, footing, brace, mat, and each similar structure below the hull of a self-elevating

unit and clear the upper hull, the columns, and the pontoons of a column stabilized unit, with the unit in an intact condition.

(1) The survival craft must be arranged to be launched down the straight side of the unit or be mounted on a structure intended to provide clearance from lower structures of the unit.

(2) The OCMI may allow a reduction in the total number of survival craft meeting this requirement when the unit is in the transit mode and the number of personnel on board is reduced. In such cases, sufficient survival craft must be available for use by the total number of personnel remaining on board.

(d) Each lifeboat of aluminum construction in the hull or canopy, and each aluminum launching appliance must be protected in its stowage position by a water spray system meeting the requirements of part 34, subpart 34.25 of this chapter.

(e) With the exception of the secondary means of launching for free-fall lifeboats, each launching appliance together with all its lowering and recovery gear must be arranged in a way that the fully equipped survival craft it serves can be safely lowered when loaded with its full complement of persons, and also without persons, against—

(1) A list of up to 20 degrees on the high side; and

(2) A list of up to 20 degrees or the degree of list where the survival craft becomes waterborne, whichever, is the greater, on the low side.

(f) When the unit is under any unfavorable condition such as maximum airgap, lightest transit or operational condition, or any damaged condition under part 174, subpart C of this chapter,—

(1) Notwithstanding the requirements under §108.550(e), survival craft launching appliances and marine evacuation systems must be capable of operation;

(2) Falls, where used, must be long enough for survival craft to reach the water; and

(3) Lifeboats with an aggregate capacity that will accommodate the total number of persons permitted on board must be capable of being launched safely, and clear of any obstruction. The

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location and orientation of each lifeboat must be such that the lifeboat is either headed away from the unit upon launching, or can be turned to a heading away from the unit immediately upon launching.

(g) A launching appliance must not depend on any means other than gravity or stored mechanical power independent of the unit's power supplies to launch the survival craft it serves, in the fully loaded and equipped conditions, and also in the light condition.

(h) Each launching appliance's structural attachment to the vessel must be designed, based on the ultimate strength of the construction material, to be at least 4.5 times 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 under paragraph (b) of this section.

(i) Each launching appliance must be arranged so that—

(1) All parts requiring regular maintenance by the 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 unit; and

(4) The preparation and handling of 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.

(j) Each launching mechanism must be arranged so it may be actuated by one person from a position on the unit's deck, and also 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.

(k) Means must be provided outside the machinery space to prevent any discharge of water onto survival craft during abandonment.

[CGD 84-069, 61 FR 25291, May 20, 1996, as amended by USCG-2010-0048, 76 FR 62973, Oct. 11, 2011]

§ 108.553 Survival craft launching and recovery arrangements using falls and a winch.

Survival craft launching and recovery arrangements, in addition to meeting the requirements in §108.550, 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 unit in its lightest seagoing condition, under unfavorable conditions of trim and with the unit 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, payout wheels, and brake levers.

(e) Each winch drum must be arranged so the fall wire winds onto the drum in a level wrap, and a multiple drum winch must be arranged so that the falls wind off at the same rate when 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, with H not greater than 30, regardless of the lowering height.

(2) $S=79+(1.2 H)$, where S is the speed of lowering in feet per minute, and H is the height in feet, with H not greater than 99.

(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 subchapter J 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 activated by the operator, holds the brake control in the off position.

§ 108.555 Lifeboat launching and recovery arrangements.

Lifeboat launching and recovery arrangements, in addition to meeting the requirements in §§108.550 and 108.553, must meet the following requirements:

(a) Each lifeboat must be capable of being launched with the unit making headway of 5 knots in calm water, or with the unit anchored or bearing on the bottom in a current of up to 5 knots. A painter may be used to meet this requirement.

(b) Each lifeboat must be provided with a launching appliance. The launching appliance must be capable of launching and recovering the lifeboat with its crew.

(c) Each launching appliance arrangement must allow the operator on the unit to observe the lifeboat at all times during recovery.

(d) Each launching appliance arrangement must be designed to ensure

persons can safely disembark from the survival craft prior its stowage.

[CGD 84-069, 61 FR 25291, May 20, 1996; 61 FR 40281, Aug. 1, 1996]

§ 108.557 Free-fall lifeboat launching and recovery arrangements.

(a) The launching appliance for a free-fall lifeboat must be designed and installed so that the launching appliance and the lifeboat it serves operate as a system to protect the occupants from harmful acceleration forces and to effectively clear the unit.

(b) The launching appliance must be designed and arranged so that in its ready to launch position, the distance from the lowest point on the lifeboat it serves to the water surface with the unit in its lightest seagoing condition does not exceed the lifeboat's certificated free-fall height.

(c) The launching appliance must be arranged so as to preclude accidental release of the lifeboat in its unattended stowed position. If the means provided to secure the lifeboat cannot be released from inside the lifeboat, the means to secure the lifeboat must be arranged as to preclude boarding the lifeboat without first releasing it.

(d) Each free-fall launching arrangement must be provided with a secondary means to launch the lifeboat by falls. Such means must comply with the requirements of §§108.550, 108.553, and 108.555. Notwithstanding §108.550(e), the launching appliance must be capable of launching the lifeboat against unfavorable conditions of list of 5 degrees in any direction and it need not comply with the speed requirements of §§108.553 (g), (h), and (i).

If the secondary launching appliance is not dependent on gravity, stored mechanical power or other manual means, the launching arrangement must be connected both to the unit's main and emergency power supplies.

§ 108.560 Rescue boats.

Each unit must carry at least one rescue boat. Each rescue boat must be approved under approval series 160.156. A lifeboat is accepted as a rescue boat if it also meets the requirements for a rescue boat.

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§ 108.565 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.

(4) Each rescue boat that is also a lifeboat, must be in compliance with § 108.530.

(b) Each rescue boat must be provided a means for recharging the rescue boat batteries from the unit's power supply at a supply voltage not exceeding 50 volts.

(c) Each inflated rescue boat must be kept fully inflated at all times.

[CGD 84-069, 61 FR 25291, May 20, 1996, as amended at 63 FR 52814, Oct. 1, 1998]

§ 108.570 Rescue boat embarkation, launching and recovery arrangements.

(a) Each rescue boat must be capable of being launched with the unit making headway of 5 knots in calm water, or with the unit anchored or bearing on the bottom in a current of up to 5 knots. A painter may be used to meet this requirement.

(b) Each rescue boat embarkation and launching arrangement must permit the rescue boat to be boarded and launched in the shortest possible time.

(c) If the rescue boat is one of the unit's survival craft, the rescue boat must also be as follows:

(1) The rescue boat must meet the embarkation arrangement and launching station requirements of § 108.540.

(2) The rescue boat must meet the launching arrangement requirements of §§ 108.550 and 108.557, and if the launching arrangement uses falls and a winch, § 108.553.

(3) If the launching arrangement uses a single fall, the rescue boat must have an automatic disengaging apparatus approved under approval series 160.170,

instead of a lifeboat release mechanism.

(d) Rapid recovery of the rescue boat must be possible when loaded with its full complement of persons and equipment. If the rescue boat is also a lifeboat, rapid recovery must be possible when loaded with its lifeboat equipment and an approved rescue boat complement of at least six persons.

(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 25291, May 20, 1996, as amended at 63 FR 52814, Oct. 1, 1998]

§ 108.575 Survival craft and rescue boat equipment.

(a) All lifeboat and 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 lifeboat, rigid liferaft, and rescue boat, unless otherwise stated in this paragraph, must carry the equipment specified for it in table § 108.575(b) of this section. A lifeboat that is also a rescue boat must carry the equipment in the table column marked for a lifeboat. Each item in the table has the same description as in § 199.175 of this chapter.

TABLE 108.575(b)—SURVIVAL CRAFT EQUIPMENT

Item No.	Item	International service			Other than international service		
		Lifeboat	Rigid liferaft	Rescue boat	Lifeboat	Rigid liferaft	Rescue boat
1	Bailer ¹	1	1	1	1	1	1
2	Bilge pump ²	1			1		
3	Boathook	2		1	2		1
4	Bucket ³	2		1	2		1
5	Can opener	3	3				
6	Compass	1		1	1		1
7	Dipper	1			1		
8	Drinking cup	1	1				
9	Fire extinguisher	1		1	1		1
10	First-aid kit	1	1	1	1	1	1
11	Fishing kit	1	1				
12	Flashlight	1	1	1	1	1	1
13	Hatchet	2			2		
14	Heaving line	2	1	2	2	1	2
15	Instruction card		1			1	
16	Jackknife	1			1		
17	Knife ^{1,4}		1	1		1	1
18	Ladder	1		1	1		1
19	Mirror, signaling	1	1		1	1	
20	Oars (units) ^{5,6}	1		1			
	Paddles		2			2	
21	Painter	2	1	1	2	1	1
22	Provisions (units per person)	1	1				
23	Pump ⁷			1			
24	Radar reflector	1	1	1			
25	Rainwater collection device	1					
26	Repair kit ⁷			1			1
27	Sea anchor	1	2	1	1	2	1
28	Searchlight	1		1	1		1
29	Seasickness kit (kits/person)	1	1		1	1	
30	Signal, smoke	2	2		2	1	
31	Signal, hand flare	6	6		6	6	
32	Signal, parachute flare	4	4		4	4	
33	Skates and fenders ⁸	1			1		
34	Sponge ⁷		2	2		2	2
35	Survival instructions	1	1		1	1	
36	Table of lifesaving signals	1	1		1	1	
37	Thermal protective aid (percent of persons) ⁹	10%	10%	10%	10%	10%	10%
38	Tool kit	1			1		
39	Towline ¹⁰	1		1	1		1
40	Water (liters per person)	3	1.5		3	1	
41	Whistle	1	1	1	1	1	1

Notes:

- ¹ Each liferaft approved for 13 persons or more must carry two of these items.
- ² Bilge pumps are not required for boats of self-bailing design.
- ³ Not required for inflated or rigid/inflated rescue boats.
- ⁴ A hatchet counts toward this requirement in rigid rescue boats.
- ⁵ Oars not required on a free-fall lifeboat; a unit of oars means the number of oars specified by the manufacturer.
- ⁶ Rescue boats may substitute buoyant oars for paddles, as specified by the manufacturer.
- ⁷ Not required for a rigid rescue boat.
- ⁸ Required if specified by the boat manufacturer.
- ⁹ 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.
- ¹⁰ Required only if the lifeboat is also the rescue boat.

[CGD 84-069, 61 FR 25291, May 20, 1996, as amended at 63 FR 52814, Oct. 1, 1998]

§ 108.580 Personal lifesaving appliances.

(a) *Lifebuoys*. Each unit must carry at least eight lifebuoys approved under approval series 160.150 as follows:

(1) *Stowage*. Lifebuoys must be stowed as follows:

(i) Each lifebuoy must be capable of being rapidly cast loose.

(ii) Each lifebuoy must not be permanently secured to the unit in anyway.

(iii) Lifebuoys must be so distributed as to be readily available on each side of the unit and, as far as practicable, on each open deck extending to the

side of the unit. The lifebuoys with attached self-igniting lights must be evenly distributed on all sides of the unit.

(iv) At least two lifebuoys, each with attached self-activating smoke signals, must be stowed where they can be quickly released from the navigating bridge or main control station, or a location readily available to personnel on board. These lifebuoys should, when released, fall directly into the water without striking any part of the unit.

(2) *Attachments and fittings.* Lifebuoys must have the following attachments and fittings:

(i) At least one lifebuoy on each side of the unit 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) Is, if synthetic, a dark color or certified by the manufacturer to be resistant to deterioration from ultraviolet light.

(ii) At least one-half the total number of lifebuoys on the unit must each be fitted with a self-igniting light approved under approval series 161.010. A self-igniting light must not be attached to the lifebuoys required by this section to be fitted with lifelines.

(iii) At least two lifebuoys on the unit each must be fitted with a self-activating smoke signal approved under approval series 160.157. Lifebuoys fitted with smoke signals must also be fitted with lights.

(b) *Lifejackets.* Each unit must carry lifejackets approved under approval series 160.155, 160.176, or 160.177. If the unit carries inflatable lifejackets, they must be of the same or similar design and have the same method of operation.

(1) *General.* Each unit must carry a lifejacket for each person on board and in addition, a sufficient number of lifejackets must be carried for persons at

each work station and industrial work site.

(2) *Stowage.* Lifejackets must be stowed as follows:

(i) The lifejackets must be readily accessible.

(ii) The additional lifejackets required by paragraph (b)(1) of this section must be stowed in places readily accessible to the work stations and industrial work sites.

(iii) Where, due to the particular arrangements of the unit, the lifejackets under paragraph (b)(1) of this section could become inaccessible, the OCMI may require an increase in the number of lifejackets to be carried, or suitable alternative arrangements.

(3) *Attachments and fittings.* Lifejackets must have the following attachments and fittings:

(i) Each lifejacket must have a lifejacket light approved under approval series 161.112 securely attached to the front shoulder area of the lifejacket. On a unit not in international service, a light approved under approval series 161.012 may be used. However, lifejacket lights bearing Coast Guard approval number 161.012/2/1 are not permitted unless the unit is certificated to operate only on waters between 32° N and 32° S latitude.

(ii) Each lifejacket must have a whistle firmly secured by a cord to the lifejacket.

(c) *Immersion suits or anti-exposure suits.* Each unit must carry immersion suits approved under approval series 160.171 or anti-exposure suits approved under approval series 160.153.

(1) *General.* Each unit, except units operating between 32 degrees north latitude and 32 degrees south latitude, must carry—

(i) Immersion suits or anti-exposure suits of suitable size for each person assigned to the rescue boat crew;

(ii) Immersion suits approved under approval series 160.171 of the appropriate size for each person on board, which count toward meeting the requirements of paragraph (c)(1)(i) of this section; and

(iii) In addition to the immersion suits required under paragraph (c)(1)(ii) of this section, each watch station, work station, and industrial work site must have enough immersion suits to

equal the number of persons normally on watch in, or assigned to, the station or site at one time. However, an immersion suit is not required at a station or site for a person whose cabin or berthing area (and the immersion suits stowed in that location) is readily accessible to the station or site.

(2) *Attachments and fittings.* Immersion suits or anti-exposure suits must have the following attachments and fittings:

(i) Each immersion suit or anti-exposure suit must have a lifejacket light approved under approval series 161.112 securely attached to the front shoulder area of the immersion suit or anti-exposure suit. On a unit not in international service, a light approved under approval series 161.012 may be used. However, lifejacket lights bearing Coast Guard approval number 161.012/2/1 are not permitted on units certificated to operate on waters where water temperature may drop below 10 °C (50 °F).

(ii) Each immersion suit or anti-exposure suit must have a whistle firmly secured by a cord to the immersion suit or anti-exposure suit.

[CGD 84-069, 61 FR 25291, May 20, 1996, as amended at 63 FR 52814, Oct. 1, 1998]

§ 108.595 Communications.

(a) *Radio lifesaving appliances.* Radio lifesaving appliance installations and arrangements must meet the requirements of 47 CFR part 80.

(b) *Distress flares.* Each unit must—

(1) Carry not less than 12 rocket parachute flares approved under approval series 160.136; and

(2) Stow the flares in a portable watertight container carried on the navigating bridge, or if the unit does not have a bridge, in the control room.

§ 108.597 Line-throwing appliance.

(a) *General.* Each unit in international service must have a line-throwing appliance that is approved under approval series 160.040. Each unit not in international service must carry a line-throwing appliance approved under either approval series 160.040 or 160.031.

(b) *Stowage.* The line-throwing appliance and its equipment must be readily accessible for use.

(c) *Additional equipment.* Each unit must carry the following equipment for the line-throwing appliance:

(1) The equipment on the list provided by the manufacturer with the approved appliance; and

(2) An auxiliary line that—

(i) Has a breaking strength of at least 40 kiloNewtons (9,000 pounds-force);

(ii) Is, if synthetic, a dark color or certified by the manufacturer to be resistant to deterioration from ultraviolet light; and

(iii) Is—

(A) At least 450 meters (1,500 feet) long, if the line-throwing appliance is approved under approval series 160.040; or

(B) At least 150 meters (500 feet) long, if the line-throwing appliance is approved under approval series 160.031.

Subpart F—Cranes

CRANES

§ 108.601 Crane design.

(a) Each crane and crane foundation on a unit must be designed in accordance with the American Petroleum Institute Specification for Offshore Cranes, API Spec. 2C, Second Edition, February, 1972 (with supplement 2).

(b) In addition to the design requirements of paragraph (a), each crane must have the following:

(1) Each control marked to show its function.

(2) Instruments with built-in lighting.

(3) Fuel tank fills and overflows that do not run onto the engine exhaust.

(4) No gasoline engines.

(5) Spark arrestors fitted on engine exhaust pipes.

Subpart G—Equipment Markings and Instructions

§ 108.621 Equipment markings: General.

Unless otherwise provided, each marking required in this subpart must be—

(a) Printed in English;

(b) In red letters with a contrasting background;

(c) Permanent;

(d) Easy to be seen;

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(e) At least 1.3 centimeters (½ inch) in height.

§ 108.623 General alarm bell switch.

Each general alarm bell switch must be marked “GENERAL ALARM” on a plate or other firm noncorrosive backing.

§ 108.625 General alarm bell.

Each general alarm bell must be identified by marking “GENERAL ALARM—WHEN BELL RINGS GO TO YOUR STATION” next to the bell.

§ 108.626 Carbon dioxide warning signs.

Each entrance to a space storing carbon dioxide cylinders, a space protected by carbon dioxide systems, or any space into which carbon dioxide might migrate must be conspicuously marked as follows:

(a) Spaces storing carbon dioxide—“CARBON DIOXIDE GAS CAN CAUSE INJURY OR DEATH. VENTILATE THE AREA BEFORE ENTERING. A HIGH CONCENTRATION CAN OCCUR IN THIS AREA AND CAN CAUSE SUFFOCATION.”

(b) Spaces protected by carbon dioxide—“CARBON DIOXIDE GAS CAN CAUSE INJURY OR DEATH. WHEN ALARM OPERATES OR WINTERGREEN SCENT IS DETECTED, DO NOT ENTER UNTIL VENTILATED. LOCK OUT SYSTEM WHEN SERVICING.” The reference to wintergreen scent may be omitted for carbon dioxide systems not required to have odorizing units and not equipped with such units.

(c) Spaces into which carbon dioxide might migrate—“CARBON DIOXIDE GAS CAN CAUSE INJURY OR DEATH. DISCHARGE INTO NEARBY SPACE CAN COLLECT HERE. WHEN ALARM OPERATES OR WINTERGREEN SCENT IS DETECTED VACATE IMMEDIATELY.” The reference to wintergreen scent may be omitted for carbon dioxide systems not required to have odorizing units and not equipped with such units.

[USCG-2006-24797, 77 FR 33882, Jun. 7, 2012]

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§ 108.627 Carbon dioxide and clean agent alarms.

Each carbon dioxide alarm must be identified by marking: “WHEN ALARM SOUNDS VACATE AT ONCE. CARBON DIOXIDE BEING RELEASED” next to the alarm.

§ 108.629 Fire extinguishing system branch line valve.

Each branch line valve of each fire extinguishing system must be marked with the name of the space or spaces it serves.

§ 108.631 Fixed fire extinguishing system controls.

(a) Each cabinet or space that contains a valve, control, or manifold of a fixed fire extinguishing system must be marked in conspicuous red letters at least 2 inches high: “[CARBON DIOXIDE/CLEAN AGENT/FOAM/WATER SPRAY—as appropriate] FIRE APPARATUS.”

(b) Instructions for the operation of a fixed fire extinguishing system must be posted next to a fire apparatus described in paragraph (a) of this section.

[CGD 73-251, 43 FR 56808, Dec. 4, 1978, as amended by USCG-2006-24797, 77 FR 33882, Jun. 7, 2012]

§ 108.633 Fire stations.

Each fire station must be identified by marking: “FIRE STATION NO. ___;” next to the station in letters and numbers at least 5 centimeters (2 inches) high.

§ 108.635 Self-contained breathing apparatus.

Each locker or space containing self-contained breathing apparatus must be marked: “SELF CONTAINED BREATHING APPARATUS”.

§ 108.636 Work vests.

Each space containing a work vest must be marked: “WORK VEST”.

§ 108.637 Hand portable fire extinguishers.

(a) Each hand portable fire extinguisher must be marked with a number that identifies it in relation to all other hand portable fire extinguishers.

(b) The location of each hand portable fire extinguisher must be marked with the same number that is marked on the extinguisher.

§ 108.639 Emergency lights.

Each emergency light must be marked: "E".

§ 108.641 Instructions for changing steering gear.

Instructions stating, in order, the different steps to be taken for changing to emergency and secondary steering gear must be posted in the steering gear room and at each secondary steering station in 1.3 centimeters (½ inch) letters and numerals of contrasting color to the background.

§ 108.643 Rudder orders.

At each steering station, the direction which the wheel or steering device must be moved for right rudder or left rudder must be marked in letters of contrasting color to the background on the wheel or steering device or in a place that is directly in the helmsman's line of vision to indicate "RIGHT RUDDER" and "LEFT RUDDER".

§ 108.645 Markings on lifesaving appliances.

(a) *Lifeboats and rescue boats.* Each lifeboat and rescue boat must be plainly marked as follows:

(1) Each side of each lifeboat and rescue boat bow must be marked in block capital letters and numbers with—

(i) The name of the unit; and

(ii) The name of the port required to be marked on the unit to meet the requirements of subpart 67.123 of this chapter.

(2) The number of persons the boat is equipped for, which may not exceed the number shown on its nameplate, must be clearly marked in permanent characters.

(3) The number of the boat and the unit's name, must be plainly marked or painted so that the markings are visible from above the boat.

(4) Type II retro-reflective material approved under approval series 164.018 must be placed on the boat and meet the arrangement requirements in IMO Resolution A.658(16).

(b) *Rigid liferafts.* Each rigid liferaft must be marked as follows:

(1) The name of the unit must be marked on each rigid liferaft.

(2) The name of the port required to be marked on the unit to meet the requirements of subpart 67.123 of this chapter.

(3) The length of the painter must be marked on each rigid liferaft.

(4) At each entrance of each rigid liferaft, the number of persons the rigid liferaft is equipped for, not exceeding the number shown on its nameplate, must be marked in letters and numbers at least 100 millimeters (4 inches) high, in a color contrasting to that of the liferaft.

[CGD 84-069, 61 FR 25298, May 20, 1996, as amended at 63 FR 52815, Oct. 1, 1998]

§ 108.646 Marking of stowage locations.

(a) Containers, brackets, racks, and other similar stowage locations for lifesaving equipment, must be marked with symbols in accordance with IMO Resolution A.760(18), indicating the devices stowed in that location for that purpose.

(b) If more than one device is stowed in that location, the number of devices must also be indicated.

(c) Survival craft should be numbered.

[CGD 84-069, 61 FR 25298, May 20, 1996, as amended at 63 FR 52815, Oct. 1, 1998]

§ 108.647 Inflatable liferafts.

The number of the liferaft and the number of persons it is permitted to accommodate must be marked or painted in a conspicuous place in the immediate vicinity of each inflatable liferaft in block capital letters and numbers. The word "liferaft" or the appropriate symbol from IMO Resolution A.760(18) shall be used to identify the stowage location. Liferafts stowed on the sides of the unit should be numbered in the same manner as the lifeboats. This marking must not be on the inflatable liferaft container.

[CGD 84-069, 61 FR 25298, May 20, 1996]

§ 108.649 Lifejackets, immersion suits, and lifebuoys.

(a) Each lifejacket must be marked—

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(1) In block capital letters with the name of the unit; and

(2) 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).

(b) The stowage positions for lifejackets, other than lifejackets stowed in staterooms, must be marked with either the word "LIFEJACKET" or with the appropriate symbol from IMO Resolution A.760(18).

(c) Each immersion suit or anti-exposure suit must be marked to identify the person or unit to which it belongs.

(d) Immersion suits or anti-exposure suits must be stowed so they are readily accessible, and the stowage positions must be marked with either the words "IMMERSION SUITS" or "ANTI-EXPOSURE SUITS", or with the appropriate symbol from IMO Resolution A.760(18).

(e) Each lifebuoy must be marked—

(1) In block capital letters with the unit's name and with the name of the port required to be marked on the unit under subpart 67.123 of this chapter; and

(2) With type II retro-reflective material approved under part 164, subpart 164.018 of this chapter. The arrangement of the retro-reflective material must meet IMO Resolution A.658(16).

(f) Each lifebuoy stowage position must be marked with either the words "LIFEBUOY" or "LIFE BUOY", or with the appropriate symbol from IMO Resolution A.760(18).

(g) Each lifejacket, immersion suit, and anti-exposure suit container must be marked in block capital letters and numbers with the minimum quantity, identity, and if sizes other than adult or universal sizes are used on the unit, the 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 25298, May 20, 1996, as amended at 63 FR 52815, Oct. 1, 1998]

§ 108.650 EPIRBs and SARTs.

Emergency position indicating radiobeacons and search and rescue transponders. Each EPIRB and SART should have the name of the unit plain-

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ly marked or painted on its label, except for EPIRBs or SARTs in an inflatable liferaft or permanently installed in a survival craft.

[CGD 84-069, 61 FR 25299, May 20, 1996]

§ 108.651 Portable magazine chests.

Each portable magazine chest must be marked: "PORTABLE MAGAZINE CHEST—FLAMMABLE—KEEP LIGHTS AND FIRE AWAY" in letters at least 7.5 centimeters (3 inches) high.

§ 108.653 Helicopter facilities.

(a) Each helicopter fueling facility must be marked adjacent to the fueling hose storage: "WARNING—HELICOPTER FUELING STATION—KEEP LIGHTS AND FIRE AWAY".

(b) Each storage tank for helicopter fuel must be marked: "DANGER—FLAMMABLE LIQUID".

(c) Each access to a helicopter landing area must be marked: "BEWARE OF TAIL ROTOR".

(d) Each marking required by this section must be in letters at least 7.5 centimeters (3 inches) high.

§ 108.655 Operating instructions.

Each unit 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).

[CGD 84-069, 61 FR 25299, May 20, 1996]

§ 108.657 Unit markings.

The hull of each unit must be marked in accordance with Parts 67 and 69 of this chapter.

§ 108.659 Lifesaving signal instructions.

On all vessels to which this subpart applies, there must be readily available to the offshore installation manager, master, or person in charge a placard containing instructions for the use of

the lifesaving signals set forth in regulation 16, chapter V, of the International Convention for Safety of Life at Sea, 1974. These signals must be used by vessels or persons in distress when communicating with lifesaving stations and maritime rescue units.

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

§ 108.661 Unit markings: Draft marks.

(a) Each unit must have draft marks for each foot of immersion—

(1) If the unit is a surface unit, on both the port and starboard sides of the stem and the stern-post or rudderpost or at any other place at the stern of the unit as may be necessary for easy observance;

(2) If the unit is a self-elevating unit, near each corner of the hull but not more than 4 required; and

(3) If the unit is a column-stabilized unit, on each corner column, continuing to the footing or lower displacement hull.

(b) The bottom of each mark must be at the draft indicated by that mark.

(c) Each mark must be—

(1) In numerals 15 centimeters (6 inches) high; and

(2) In contrasting color to the background.

(d) For the purposes of this section, “draft” means the distance from the bottom of the keel or the lowest shell plate on the outer surface of the unit to the surface of the water, except that where a unit has a permanent appendage extending below the bottom of the keel, “draft” means the distance from the lowest part of the appendage to the surface of the water.

(e) In cases where draft marks are obscured due to operational constraints or by protrusions, the vessel must be fitted with a reliable draft indicating system from which the draft can be determined.

[CGD 73-251, 43 FR 56808, Dec. 4, 1978, as amended by CGD 89-037, 57 FR 41823, Sept. 11, 1992]

§ 108.663 Unit markings: Load line.

Each unit that is assigned a load line must have the load line marked in accordance with Part 42 of this chapter.

§ 108.665 Appliances for watertight integrity.

Each watertight door, scuttle, and hatch required for watertight integrity, which may be opened during normal operations must be marked in letters of contrasting color to the background “KEEP CLOSED”.

Subpart H—Miscellaneous Equipment

§ 108.697 Buoyant work vests.

(a) Each buoyant work vest on a unit must be approved under Subpart 160.053 or Subpart 160.077 of this chapter.

(b) Commercial hybrid PFD’s carried as work vests must be—

(1) Used, stowed, and maintained in accordance with the procedures set out in the manual required for these devices by §160.077-29 of this chapter and any limitation(s) market on them; and

(2) Of the same or similar design and have the same method of operation as each other hybrid PFD carried on board.

[CGD 78-174A, 51 FR 4351, Feb. 4, 1986]

§ 108.699 Substitution of life preservers.

A work vest may not be substituted for a required life preserver—

(a) For the life saving equipment requirements of this part; or

(b) For use during drills and emergencies.

§ 108.701 Sounding equipment.

Each self-propelled unit must have a mechanical or electronic sounding apparatus.

§ 108.703 Self-contained breathing apparatus.

(a) Each unit must be equipped with a self-contained breathing apparatus described in §108.497(a) to use as protection against gas leaking from a refrigeration unit if it is equipped with any refrigeration unit using—

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

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

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(b) The self-contained breathing apparatus required in § 108.497 may be used for this purpose.

[CGD 73-251, 43 FR 56808, Dec. 4, 1978, as amended by CGD 86-036, 57 FR 48326, Oct. 23, 1992]

§ 108.705 Anchors, chains, wire rope, and hawsers.

(a) Each unit must be fitted with anchors, chains, wire rope, and hawsers in agreement with the standards established by the American Bureau of Shipping.

(b) Units which are equipped with anchors used as operational equipment are not required to have additional anchors if the operational anchors meet the requirements of paragraph (a) of this section.

[CGD 73-251, 43 FR 56808, Dec. 4, 1978, as amended by USCG-1999-6216, 64 FR 53226, Oct. 1, 1999]

§ 108.707 First aid kit.

Each unit must have a first-aid kit approved by the Mine Safety and Health Administration (Formerly Mining Enforcement and Safety Administration) of a size suitable for the number of persons allowed on board the unit that is stowed in a location that is accessible to persons on board.

§ 108.709 Litter.

Each unit must have a litter that is—

(a) Stowed in a location that is accessible to the persons on board; and

(b) Capable of being used on the type of helicopters serving the unit.

§ 108.713 International Code of Signals.

Each vessel on an international voyage which is required to carry a radiotelegraph or radiotelephone installation in accordance with Chapter IV of the Safety of Life at Sea Convention, 1960, must carry the International Code of Signals.

§ 108.715 Magnetic compass and gyrocompass.

(a) Each self-propelled unit in ocean or coastwise service must have a magnetic compass.

(b) Each self-propelled unit of 1,600 gross tons and over in ocean or coastwise service must have a gyrocompass

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in addition to the magnetic compass required in paragraph (a) of this section.

(c) Each unit that is required to have a gyrocompass must have an illuminated repeater for the gyrocompass that is at the main steering stand unless the gyrocompass is illuminated and is at the main steering stand.

§ 108.717 Radar.

Each self-propelled unit of 1,600 gross tons and over in ocean or coastwise service must have—

(a) A marine radar system for surface navigation; and

(b) Facilities on the bridge for plotting radar readings.

§ 108.719 Pilot boarding equipment.

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

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

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

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

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

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

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

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

(g) Whenever the distance from the water's edge to the point of access is more than 30 feet, access from a pilot ladder to the vessel must be by way of

an accommodation ladder or equally safe and convenient means.

(h) Pilot hoists, if used, must be approved under subpart 163.002 of this chapter.

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

Subpart I—Navigation Bridge Visibility

§ 108.801 Navigation bridge visibility.

Each mobile offshore drilling unit which is 100 meters (328 feet) or more in length and contracted for on or after September 7, 1990, must meet the following requirements:

(a) The field of vision from the navigation bridge, whether the vessel is in a laden or unladen condition, must be such that:

(1) From the conning position, the view of the sea surface is not obscured forward of the bow by more than the lesser of two ship lengths or 500 meters (1,640 feet) from dead ahead to 10 degrees on either side of the vessel. Within this arc of visibility any blind sector caused by cargo, cargo gear, or other permanent obstruction must not exceed 5 degrees.

(2) From the conning position, the horizontal field of vision extends over an arc from at least 22.5 degrees abaft the beam on one side of the vessel, through dead ahead, to at least 22.5 degrees abaft the beam on the other side of the vessel. Blind sectors forward of the beam caused by cargo, cargo gear, or other permanent obstruction must not exceed 10 degrees each, nor total more than 20 degrees, including any blind sector within the arc of visibility described in paragraph (a)(1) of this section.

(3) From each bridge wing, the field of vision extends over an arc from at least 45 degrees on the opposite bow, through dead ahead, to at least dead astern.

(4) From the main steering position, the field of vision extends over an arc from dead ahead to at least 60 degrees on either side of the vessel.

(5) From each bridge wing, the respective side of the vessel is visible forward and aft.

(b) Windows fitted on the navigation bridge must be arranged so that:

(1) Framing between windows is kept to a minimum and is not installed immediately in front of any work station.

(2) Front windows are inclined from the vertical plane, top out, at an angle of not less than 10 degrees and not more than 25 degrees.

(3) The height of the lower edge of the front windows is limited to prevent any obstruction of the forward view previously described in this section.

(4) The height of the upper edge of the front windows allows a forward view of the horizon at the conning position, for a person with a height of eye of 1.8 meters (71 inches), when the vessel is at a forward pitch angle of 20 degrees.

(c) Polarized or tinted windows must not be fitted.

[CGD 85-099, 55 FR 32248, Aug. 8, 1990]

Subpart J—Muster List

§ 108.901 Muster list and emergency instructions.

(a) *General.* Copies of clear instructions must be provided on the unit, detailing the actions that each person on board should follow in the event of an emergency.

(b) *Muster list.* Copies of the muster list must be posted in conspicuous places throughout the unit including on the navigating bridge, in the control room, and in accommodation spaces. The muster list must be posted at all times while the unit is in service. After the muster list has been prepared, if any change takes place that necessitates an alteration in the muster list, the person in charge must either revise the muster list or prepare a new one. Muster lists must provide the following information:

(1) Each muster list must specify instructions for operating the general emergency alarm system.

(2) Each muster list must specify the emergency signals.

(3) Each muster list must specify the actions to be taken by the crew and industrial personnel when each signal is sounded.

(4) Each muster list must specify how the order to abandon the unit will be given.

(5) Each muster list must specify the persons that are assigned to make sure

that lifesaving and firefighting appliances are maintained in good condition and ready for immediate use.

(6) The muster list must specify the duties assigned to the different industrial personnel and members of the crew that include—

(i) Closing the watertight doors, fire doors, valves, scuppers, sidescuttles, skylights, portholes, and other similar openings in the unit's hull;

(ii) Equipping the survival craft and other lifesaving appliances;

(iii) Preparing and launching the survival craft;

(iv) Preparing other lifesaving appliances;

(v) Mustering the visitors and other persons in addition to the crew and industrial personnel;

(vi) Using communication equipment;

(vii) Manning the emergency squad assigned to deal with fires and other emergencies;

(viii) Special duties assigned with respect to the use of firefighting equipment and installations;

(ix) Cover the duties of the crew and industrial personnel in case of collisions or other serious casualties; and

(x) Cover the duties of the crew and industrial personnel in case of severe storms.

(7) Each muster list must specify the duties assigned to industrial personnel and members of the crew in relation to visitors and other persons on board in case of an emergency that include—

(i) Warning visitors and other persons on board;

(ii) Seeing that visitors and other persons on board are suitably dressed and have donned their lifejackets or immersion suits correctly;

(iii) Assembling visitors and other persons on board at muster stations; and

(iv) Keeping order in the passageways and on the stairways and generally controlling the movements of the visitors and other persons on board;

(8) Each muster list must specify substitutes for key persons if they are disabled, taking into account that different emergencies require different actions.

(c) *Emergency instructions.* Illustrations and instructions in English and

any other appropriate language, as determined by the OCMI, must be posted in each cabin used for persons who are not members of the crew or industrial personnel. They must be conspicuously displayed at each muster station and in other accommodation spaces to inform personnel of—

(1) The fire and emergency signal;

(2) Their muster station;

(3) The essential actions they must take in an emergency;

(4) The location of lifejackets, including child-size lifejackets;

(5) The method of donning lifejackets;

(6) If immersion suits are provided, the location of the immersion suits; and

(7) Fully illustrated instructions on the method of donning immersion suits.

[CGD 84-069, 61 FR 25299, May 20, 1996, as amended at 63 FR 52815, Oct. 1, 1998]

PART 109—OPERATIONS

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APPENDIX A TO PART 109—NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 4-78—INSPECTION AND CERTIFICATION OF EXISTING MOBILE OFFSHORE DRILLING UNITS

AUTHORITY: 43 U.S.C. 1333; 46 U.S.C. 3306, 6101, 10104; Department of Homeland Security Delegation No. 0170.1.

SOURCE: CGD 73-251, 43 FR 56828, Dec. 4, 1978, unless otherwise noted.

Subpart A—General

§ 109.101 Applicability.

No unit may be operated unless it complies with the regulations in this part.

§ 109.103 Requirements of the International Convention for Safety of Life at Sea, 1974.

No self-propelled unit of more than 500 gross tons may embark on an international voyage unless it is issued the appropriate Convention certificate as described in §§ 107.401 through 107.413 of this subchapter.

§ 109.105 Incorporation by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a). To enforce any edition other than that specified in paragraph (b) of this section, the Coast Guard must publish notice of change in the FEDERAL REGISTER and make the material available to the public. All approved material is on file at the U.S. Coast Guard, Office of Design and Engineering Standards (CG-ENG), 2100 2nd St. SW., Stop 7126, Washington, DC 20593-7126 or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. All material is available from the sources indicated in paragraph (b) of this section.

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

American Society for Testing and Materials (ASTM)

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

ASTM Adjunct F 1626, Symbols for Use in Accordance with Regulation II-2/20 of the 1974 SOLAS Convention as amended PCN: 12-616260-01 (1996)—109.563

International Maritime Organization (IMO)

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

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Resolution A.654.(16), Graphical Symbols for Fire Control Plans—109.563

[CGD 95-028, 62 FR 51208, Sept. 30, 1997, as amended by USCG 1998-4442, 63 FR 52191, Sept. 30, 1998; USCG 1999-5151, 64 FR 67182, Dec. 1, 1999; USCG-2009-0702, 74 FR 49233, Sept. 25, 2009; USCG-2012-0832, 77 FR 59781, Oct. 1, 2012]

§ 109.107 Designation of master or person in charge.

The owner of a unit or his agent shall designate an individual to be the master or person in charge of the unit.

§ 109.109 Responsibilities of master or person in charge.

(a) The master or person in charge shall—

(1) Ensure that the provisions of the Certificate of Inspection are adhered to; and

(2) Be fully cognizant of the provisions in the operating manual required by § 109.121.

(b) Nothing in this subpart shall be construed as limiting the master or person in charge, at his own responsibility, from diverting from the route prescribed in the Certificate of Inspection or taking such steps as he deems necessary and prudent to assist vessels in distress or for other emergency conditions.

§ 109.121 Operating manual.

(a) Each unit must have on board an operating manual approved by the Coast Guard as meeting the requirements of this section.

(b) The operating manual must be available to, and written in a manner that is easily understood by, the unit's operating personnel and include the following:

(1) A table of contents and general index.

(2) A general description of the unit, including major dimensions, tonnages, dry bulk capacities, damage stability standard to which designed, hook load capacity, rotary table capacity, set back load capacity, drilling derrick capacity, and the identification, the maximum deadweight in pounds and kilograms, and the rotor size in feet and meters of the helicopter used for the design of the helicopter deck.

(3) Limiting design data for each mode of operation, including draft, air

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gap, wave height, wave period, wind, current, temperature, and other environmental factors.

(4) Instructions on the use of the stability data.

(5) Lightweight data with a comprehensive listing of the inclusions and exclusions of semi-permanent equipment, together with guidance for the routine recording of lightweight alterations.

(6) Information identifying the type, location, and quantities of permanent ballast.

(7) Hydrostatic curves or tables.

(8) The maximum allowable deck loadings either listed or shown on a plan.

(9) A capacity plan showing the capacities and the vertical, longitudinal, and transverse centers of gravity of tanks and bulk material stowage spaces.

(10) Tank sounding tables or curves showing capacities, the vertical, longitudinal, and transverse centers of gravity in graduated intervals, and the free surface data of each tank.

(11) 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.

(12) Examples of loading conditions for each mode of operation and instructions for developing other acceptable loading conditions.

(13) Information concerning the use of any special crossflooding fitting for each operating condition which, if damage occurs, may require crossflooding for survival (surface units only) and the location of any valve that may require closure to prevent progressive flooding (all units).

(14) Guidance for preparing the unit for the passage of a severe storm and the specific actions and approximate length of time to complete them or to attain a designated level of preparedness.

(15) Guidance for operating the unit while changing its mode of operation and for preparing the unit to make a move and, for self-elevating units in

the transit mode, information for preparing the unit to avoid structural damage during heavy weather, including the positioning and securing of legs, cantilever structures, and heavy cargo or large equipment which might shift position.

(16) A description of any inherent operational limitations for each mode of operation and for each change in mode of operation.

(17) Guidance for the person in charge to determine the cause of unexpected list and trim before taking corrective action.

(18) For column stabilized units, a description, a schematic diagram, and guidance for the operation of the ballast system and of the alternate means of ballast system operation, together with a description of their limitations, such as pump capacities at various angles of heel and trim.

(19) A description, a schematic diagram, and guidance for the operation of the bilge system and of the alternate means of bilge system operation, together with a description of their limitations, such as spaces not connected to the bilge system.

(20) General arrangement plans showing the location of: Watertight and weathertight compartments, and openings in the hull and structure; vents, closures, and mechanical, ventilating, and electrical emergency shutdowns; flooding alarms and fire and gas detectors; and access to different compartments and decks.

(21) A list of emergency shutdowns and guidance on restarting all mechanical, ventilating, and electrical equipment after activation of the emergency shutdowns.

(22) Procedures for evacuating personnel from the unit.

(23) A plan showing the hazardous locations described in §111.105-33 of this chapter.

(24) A schematic diagram of the emergency power system.

(Approved by the Office of Management and Budget under control number 1625-0038)

[CGD 83-071, 52 FR 6979, Mar. 6, 1987; 52 FR 9383, Mar. 24, 1987, as amended by CGD 95-028, 62 FR 51208, Sept. 30, 1997; USCG-2006-25697, 71 FR 55746, Sept. 25, 2006]

Subpart B—Tests, Drills, and Inspections

§ 109.201 Steering gear, whistles, general alarm, and means of communication.

The master or person in charge shall ensure that—

(a) Steering gear, whistles, general alarm bells, and means of communication between the bridge or control room and the engine room on self propelled units are inspected and tested—

(1) Within 12 hours before getting under way; and

(2) At least once each week if under way or on station; and

(b) Whistles and general alarm bells on all other units are inspected examined and tested at least once each week.

§ 109.203 Sanitation.

(a) The master or person in charge shall insure that the accommodation spaces are in a clean and sanitary condition.

(b) The chief engineer, or engineer in charge if no chief engineer is required, shall insure that the engineering spaces are in a clean and sanitary condition.

§ 109.205 Inspection of boilers and machinery.

The chief engineer or engineer in charge, before he assumes charge of the boilers and machinery of a unit shall inspect the boilers and machinery, other than industrial machinery, and report to the master or person in charge and the Officer in Charge, Marine Inspection, any parts that are not in operating condition.

§ 109.209 Appliances for watertight integrity.

(a) Before getting underway, the master or person in charge shall insure that each appliance for watertight integrity is closed and watertight.

(b) If existing conditions warrant, the master or person in charge may permit appliances for watertight integrity to be open while afloat.

§ 109.211 Testing of emergency lighting and power systems.

(a) The master or person in charge shall insure that—

(1) Each emergency lighting and each emergency power system is tested at least once each week;

(2) Each emergency generator is tested at least once each month by operating it under load for at least 2 hours; and

(3) Each storage battery for emergency lighting and power systems is tested every six months under actual connected load for a period of at least 2 hours.

(b) After the 2 hour test period required in paragraph (a)(3) of this section, the voltage values under load or specific gravity of electrolyte must be measured. Measured values must be extrapolated to approximate the values that would result following a 12 hour test period. The test must be extended if a trend cannot be determined to allow extrapolation. The capacity of the battery corresponding to the extrapolated values of voltage or specific gravity must be sufficient to supply the actual connected load.

§ 109.213 Emergency training and drills.

(a) *Training materials.* Abandonment training material must be on board each unit. The training material must consist either of a manual of one or more volumes, written in easily understood terms and illustrated wherever possible, or audiovisual training aids, or both as follows:

(1) If a training manual is used, a copy must be made available to each person on board the unit. If audiovisual training aids are used, they must be incorporated into the onboard training sessions described under paragraph (g) of this section.

(2) The training material must explain, in detail—

(i) The procedure for donning life-jackets, immersion suits, and anti-exposure suits carried on board;

(ii) The procedure for mustering at the assigned stations;

(iii) The procedure for boarding, launching, and clearing the survival craft and rescue boats;

(iv) The method of launching from within the survival craft;

(v) The procedure for releasing from launching appliances;

(vi) The method and use of water spray systems in launching areas when required for the protection of aluminum survival craft or launching appliances;

(vii) Illumination in launching area;

(viii) The use of all survival equipment;

(ix) The use of all detection equipment for the location of survivors or survival craft;

(x) With illustrations, the use of radio lifesaving appliances;

(xi) The use of sea anchors;

(xii) The use of engine and accessories;

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

(xiv) The hazards of exposure and the need for warm clothing;

(xv) The best use of the survival craft for survival;

(xvi) The methods of retrieval, including the use of helicopter rescue gear (slings, baskets, stretchers), and unit's line throwing apparatus;

(xvii) The other functions contained in the muster list and emergency instructions; and

(xviii) The instructions for emergency repair of the lifesaving appliances.

(b) *Familiarity with emergency procedures.* Each of the crew members and industrial personnel with assigned emergency duties on the muster list must be familiar with their assigned duties before working on the unit.

(c) *Drills—general.* (1) Drills must, as far as practicable, be conducted as if there were an actual emergency.

(2) Each of the crew members and industrial personnel must participate in at least one abandonment drill and one fire drill every month. Drills must take place within 24 hours of a change in crew or industrial personnel if more than 25 percent of the persons on board have not participated in an abandonment and fire drills on board the unit in the previous month.

(3) Drills must be held before the unit enters service for the first time after

modification of a major character, or when a new crew is engaged.

(d) *Abandonment drills.* (1) Abandonment drills must include the following:

(i) Each drill must include summoning of industrial personnel and crew to muster stations with the general alarm, followed by drill announcements on the public address or other communication system, and ensuring that all on board are made aware of the order to abandon ship.

(ii) Each drill must include reporting to stations and preparing for the duties described in the muster list.

(iii) Each drill must include checking that industrial personnel and crew are suitably dressed.

(iv) Each drill must include checking that lifejackets or immersion suits are correctly donned.

(v) Each drill must include lowering of at least one lifeboat after any necessary preparation for launching.

(vi) Each drill must include starting and operating the lifeboat engine.

(vii) Each drill must include operating davits used for launching the lifeboats.

(2) Different lifeboats must, as far as practicable, be lowered in compliance with the requirements of paragraph (d)(1)(v) of this section at successive drills.

(3) Each lifeboat must be launched with its assigned operating crew aboard, and maneuvered in the water at least once every 3 months, during an abandonment drill.

(4) As far as is reasonable and practicable, rescue boats other than lifeboats which are also rescue boats, must be launched each month with their assigned crew aboard and maneuvered in the water. In all cases this requirement must be complied with at least once every 3 months.

(5) If a unit is fitted with marine evacuation systems, drills must include an exercising of the procedures required for the deployment of such a system up to the point immediately preceding actual deployment of the system. This aspect of drills should be augmented by regular instruction using the on board training aids. Additionally, members of the crew or industrial personnel assigned to duties involving the marine evacuation system

must be further trained by participation in a full deployment of a similar system into water, either on board a unit or ashore, at intervals normally not longer than 2 years, but in no case longer than 3 years.

(6) Emergency lighting for mustering and abandonment must be tested at each abandonment drill.

(7) On a unit carrying immersion suits or anti-exposure suits, immersion suits or anti-exposure suits must be worn by crew members and industrial personnel in at least one abandonment drill in any three-month period. If wearing the suit is impracticable due to warm weather, the crew members must be instructed on its donning and use.

(e) *Line-throwing appliance.* A drill must be conducted on the use of the line-throwing appliance at least once every 3 months. The actual firing of the appliance is at the discretion of the person in charge.

(f) *Fire drills.* (1) Fire drills must, as far as practicable, be planned in such a way that due consideration is given to regular practice in the various emergencies that may occur depending on the type of unit.

(2) Each fire drill must include—

(i) Reporting to stations, and preparing for the duties described in the muster list for the particular fire emergency being simulated;

(ii) Starting of fire pumps and the use of two jets of water to determine that the system is in proper working order;

(iii) Checking the fireman's outfits and other personal rescue equipment;

(iv) Checking the relevant communication equipment;

(v) Checking the operation of watertight doors, fire doors, and fire dampers and main inlets and outlets of ventilation systems in the drill area;

(vi) Checking the necessary arrangements for subsequent abandonment of the unit; and

(vii) Simulated operation of remote controls for stopping ventilation and fuel supplies to machinery spaces.

(3) The equipment used during drills must immediately be brought back to its fully operational condition, and any faults and defects discovered during

the drills must be remedied as soon as possible.

(g) *Onboard training and instruction.*

(1) Except as provided in paragraph (g)(2) of this section, onboard training in the use of the unit's lifesaving appliances, including survival craft equipment, and in the use of the unit's fire-extinguishing appliances must be given to each member of the crew and industrial personnel as soon as possible but not later than 2 weeks after they join the unit.

(2) If crew or industrial personnel are on a regularly scheduled rotating assignment to the unit, onboard training in the use of the unit's lifesaving appliances, including survival craft equipment, and in the use of the unit's fire-extinguishing appliances must be given not later than 2 weeks after the time of first joining the unit.

(3) The crew and industrial personnel must be instructed in the use of the unit's fire-extinguishing appliances, lifesaving appliances, and in survival at sea at the same interval as the drills. Individual instruction may cover different parts of the unit's lifesaving and fire-extinguishing appliances, but all the unit's lifesaving and fire-extinguishing appliances, must be covered within any period of 2 months.

(4) Crew and industrial personnel must be given instructions which include, but are not limited to—

(i) The operation and use of the unit's inflatable liferafts;

(ii) The problems of hypothermia, first aid treatment for hypothermia and other appropriate first aid procedures;

(iii) The special instructions necessary for use of the unit's lifesaving appliances in severe weather and severe sea conditions; and

(iv) The operation and use of fire-extinguishing appliances.

(5) Onboard training in the use of davit-launched liferafts must take place at intervals of not more than 4 months on each unit with davit-launched liferafts. Whenever practicable this must include the inflation and lowering of a liferaft. If this liferaft is a special liferaft intended for training purposes only, and is not part of the unit's lifesaving equipment, this liferaft must be conspicuously marked.

(6) Each of the industrial personnel without designated responsibility for the survival of others on board, must be instructed in at least—

(i) The emergencies which might occur on that particular type of unit;

(ii) The consequences of panic;

(iii) The location and actuation of fire alarm controls;

(iv) The location and proper method of use of firefighting equipment;

(v) Fire precautions;

(vi) The types of all lifesaving appliances carried on the unit and proper methods of using them, including—

(A) The correct method of donning and wearing a lifejacket, and if provided an immersion suit;

(B) Jumping into the water from a height while wearing a lifejacket and, if provided, an immersion suit;

(C) How to board survival craft from the unit and from the water;

(D) Operation and use of the unit's inflatable liferafts;

(E) Special instructions necessary for use of the unit's lifesaving appliances in severe weather and severe sea conditions;

(F) Swimming while wearing a lifejacket; and

(G) Keeping afloat without a lifejacket.

(vii) Where appropriate, how to survive in the water—

(A) In the presence of fire or oil on the water;

(B) In cold conditions; and

(C) If sharks may be present.

(viii) Problems of hypothermia, first aid treatment for hypothermia and other appropriate first aid procedures;

(ix) The need to adhere to the principles of survival; and

(x) The basic methods of boarding helicopters.

(7) Each member of the crew and each of the industrial personnel with designated responsibility for the survival of others on board must be instructed in at least the items covered in paragraph (g)(6) of this section, and—

(i) Methods of detection, isolation, control, and extinguishing of fire;

(ii) Checking and maintaining fire fighting equipment;

(iii) Marshaling of personnel; and

(iv) Abandonment of the unit, including—

- (A) Launching survival craft;
- (B) Getting survival craft quickly and safely clear of the unit; and
- (C) Righting a capsized survival craft.

(v) Handling all survival craft and their equipment, including—

(A) Checking and maintaining their readiness for immediate use;

(B) Using equipment to the best advantage;

(C) Using the sea anchor;

(D) Remaining, as far as practicable, in the general vicinity of the unit, well clear of but not downwind of any hydrocarbons or fire;

(E) Recovering and, as far as practicable, caring for other survivors;

(F) Keeping a lookout;

(G) Operating equipment provided to aid in the detection of the survival craft by others, including radio distress alerting and radio emergency procedures; and

(H) Making proper use of food and drinking water and using protective measures in survival craft such as those for preventing exposure to cold, sun, wind, rain, and sea, and for preventing seasickness.

(vi) Cautioning on the preservation of body fluids and the dangers of drinking seawater;

(vii) Transferring personnel from survival craft to helicopters or to work boats;

(viii) Maintaining morale; and

(ix) Methods of helicopter rescue.

(h) *Records.* (1) When musters are held, details of abandonment drills, fire drills, other lifesaving appliances, and onboard training must be recorded in the unit's official logbook. Logbook entries must include the following:

(i) Logbook entries must identify the date and time of the drill, muster, or training session.

(ii) Logbook entries must identify the survival craft and fire-extinguishing equipment used in the drills.

(iii) Logbook entries must identify the inoperative or malfunctioning equipment and the corrective action taken.

(iv) Logbook entries must identify crew members and industrial personnel participating in drills or training sessions.

(v) Logbook entries must identify the subject of the onboard training session.

(2) If a full muster, drill, or training session is not held at the appointed time, an entry must be made in the logbook stating the circumstances and the extent of the muster, drill, or training session held.

[CGD 84-069, 61 FR 25299, May 20, 1996, as amended at 63 FR 52815, Oct. 1, 1998]

§ 109.223 Fire fighting equipment.

The master or person in charge shall insure that each hand portable fire extinguisher, semi-portable fire extinguisher, and fixed fire-extinguishing system is tested and inspected at least once each twelve months.

§ 109.227 Verification of vessel compliance with applicable stability requirements.

(a) The master or person-in-charge shall determine that the vessel complies with all applicable stability requirements in the vessel's trim and stability book, operating manual, stability letter, Certificate of Inspection, and Load Line Certificate, as the case may be, and then enter an attestation statement of the verification in the log book, at the following times:

(1) Prior to transitioning from the transit condition to the operating condition;

(2) Prior to transitioning from the operating condition to the transit condition;

(3) Prior to significant changes in deck load or ballast;

(4) At other times as required by the vessel's trim and stability book or operating manual; and

(5) At all other times necessary to assure the safety of the vessel.

(b) When determining compliance with applicable stability requirements the vessel's draft, trim, and stability must be determined as necessary and any stability calculations made in support of the determination must be retained on board the vessel for a one month period or until a change of location, if shorter.

[CGD 89-037, 57 FR 41823, Sept. 11, 1992]

Subpart C—Operation and Stowage of Safety Equipment

§ 109.301 Operational readiness, maintenance, and inspection of lifesaving equipment.

(a) *Operational readiness.* Except as provided in § 109.301(b)(3), each lifesaving appliance must be in good working order and ready for immediate use at all times when the unit is in operation.

(b) *Maintenance.* (1) The manufacturer's instructions for onboard maintenance of lifesaving appliances must be onboard and must include the following for each appliance—

(i) Checklists for use when carrying out the inspections required under § 109.301(e);

(ii) Maintenance and repair instructions;

(iii) A schedule of periodic maintenance;

(iv) A diagram of lubrication points with the recommended lubricants;

(v) A list of replaceable parts;

(vi) A list of sources of spare parts; and

(vii) A log for records of inspections and maintenance.

(2) In lieu of compliance with paragraph (b)(1) of this section, The OCMI may accept a planned maintenance program that includes the items listed in that paragraph.

(3) If lifeboats, rescue boats or rigid liferafts are maintained and repaired while the unit is in operation, there must be a sufficient number of lifeboats and liferafts remaining available for use to accommodate all persons on board.

(c) *Spare parts and repair equipment.* Spare parts and repair equipment must be provided for each lifesaving appliance and component subject to excessive wear or consumption and that needs to be replaced regularly.

(d) *Weekly inspections and tests.* (1) Each survival craft, rescue boat, and launching appliance must be visually inspected to ensure its readiness for use.

(2) Each lifeboat engine and rescue boat engine must be run ahead and astern for a total of not less than 3 minutes, unless the ambient air temperature is below the minimum tem-

perature required for starting the engine. During this time, demonstrations should indicate that the gear box and gear box train are engaging satisfactorily. If the special characteristics of an outboard motor fitted to a rescue boat would not allow the outboard motor to be run other than with its propeller submerged for a period of 3 minutes, the outboard motor should be run for such period as prescribed in the manufacturer's handbook.

(3) The general alarm system must be tested.

(e) *Monthly inspections.* (1) Each lifesaving appliance, including lifeboat equipment, must be inspected monthly using the checklists required under paragraph (b) of this section to make sure it is complete and in good working order. A report of the inspection, including a statement as to the condition of the equipment, must be recorded in the unit's official logbook.

(2) Each EPIRB and each 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 output indicator to determine that it is operative.

(f) *Annual inspections.* Annual inspection and repair must include the following:

(1) Each survival craft, except for inflatable liferafts, must be stripped, cleaned, and thoroughly inspected and repaired, as needed, at least once in each year, including emptying and cleaning each fuel tank, and refilling it with fresh fuel.

(2) Each davit, winch, fall and other launching appliance must be thoroughly inspected and repaired, as needed, once in each year.

(3) Each item of survival equipment with an expiration date must be replaced during the annual inspection and repair, if the expiration date has passed.

(4) Each battery clearly marked with an expiration date, that is used in an item of survival equipment must be replaced during the annual inspection and repair, if the expiration date has passed.

(5) Except for a storage battery used in a lifeboat or rescue boat, each battery without an expiration date that is used in an item of survival equipment

must be replaced during the annual inspection and repair.

(g) *Servicing of inflatable lifesaving appliances, inflated rescue boats, and marine evacuation systems.* (1) Each inflatable lifesaving appliance and marine evacuation system must be serviced—

(i) Within 12 months of its initial packing; and

(ii) Within 12 months of each subsequent servicing, except when servicing is delayed until the next scheduled inspection of the unit, provided the delay does not exceed 5 months.

(2) Each inflatable lifejacket must be serviced in accordance with servicing procedures meeting the requirements of part 160, subpart 160.176 of this chapter. Each hybrid inflatable lifejacket must be serviced in accordance with the owners manual and meet the requirements of part 160, subpart 160.077 of this chapter.

(3) An inflatable liferaft 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—

(i) 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 unit, provided that the delay does not exceed 5 months; and

(ii) Whenever the container is damaged or the container straps or seals are broken.

(4) Each inflated rescue boat must be repaired and maintained in accordance with the manufacturer's instructions. All repairs to inflated chambers must be made at a servicing facility approved by the Commandant, except for emergency repairs carried out on board the unit.

(h) *Periodic servicing of hydrostatic release units.* Each hydrostatic release unit, other than a disposable hydrostatic release unit, must be serviced—

(1) Within 12 months of its manufacture and within 12 months of each subsequent servicing, except when servicing is delayed until the next scheduled inspection of the unit, provided the delay does not exceed 5 months; and

(2) In accordance with repair and testing procedures meeting the requirements of part 160, subpart 160.062 of this chapter.

(i) *Periodic servicing of launching appliances and release gear.* (1) Launching appliances must be serviced at the intervals recommended in the manufacturer's instructions, or as set out in the shipboard planned maintenance program.

(2) Launching appliances must be thoroughly examined at intervals not exceeding 5 years and upon completion of the examination, the launching appliance must be subjected to a dynamic test of the winch brake.

(3) Lifeboat and rescue boat release gear must be serviced at the intervals recommended in the manufacturer's instructions, or as set out in the planned maintenance program.

(4) Lifeboat and rescue boat release gear must be subjected to a thorough examination by properly trained personnel familiar with the system at each inspection for certification.

(5) Lifeboat and rescue boat release gear must be operationally tested under a load of 1.1 times the total mass of the lifeboat when loaded with its full complement of persons and equipment, whenever overhauled, or at least once every 5 years.

(j) *Maintenance of falls.* (1) Each fall used in a launching appliance must be turned end-for-end at intervals of not more than 30 months and must be renewed when necessary due to deterioration or at intervals of not more than 5 years, whichever is earlier.

(2) As an alternative to paragraph (j)(1) of this section, each fall may be inspected annually and renewed whenever necessary due to deterioration or at intervals of not more than 4 years, whichever is earlier.

(k) *Rotational deployment of marine evacuation systems.* In addition to or in conjunction with the servicing intervals of marine evacuation systems required by paragraph (g)(1) of this section, each marine evacuation system must be deployed from the unit on a

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rotational basis. Each marine evacuation system must be deployed at least once every 6 years.

[CGD 84-069, 61 FR 25301, May 20, 1996, as amended by CGD 85-205, 62 FR 35392, July 1, 1997; CGD 84-069, 63 FR 52816, Oct. 1, 1998; USCG-2001-11118, 67 FR 58541, Sept. 17, 2002]

§ 109.323 Manning of survival craft and supervision.

(a) There must be a sufficient number of trained persons on board the survival craft for mustering and assisting untrained persons.

(b) There must be a sufficient number of deck officers, able seamen, or certificated persons on board to operate the survival craft and launching arrangements required for abandonment by the total number of persons on board.

(c) There must be one person placed in charge of each survival craft to be used. The person in charge must—

(1) Be a deck officer, able seaman, or certificated person. The OCMI, considering the number of persons permitted on board, and the characteristics of the unit, may permit persons practiced in the handling and operation of liferafts or inflatable buoyant apparatus to be placed in charge of liferafts or inflatable buoyant apparatus;

(2) Have another person designated second-in-command of each lifeboat permitted to carry more than 40 persons. This person should be a deck officer, able seaman, or certificated person; and

(3) Have a list of the survival craft crew and must see that the crewmembers are acquainted with their duties. The second-in-command of a lifeboat must also have a list of the lifeboat crew.

(d) There must be a person assigned to each motorized survival craft who is capable of operating the engine and carrying out minor adjustments.

(e) The person in charge must make sure that the persons required under paragraphs (a), (b), and (c) of this section are equitably distributed among the unit's survival craft.

[CGD 84-069, 61 FR 25302, May 20, 1996]

§ 109.329 Fire pumps.

The master or person in charge shall insure that at least one of the fire pumps required in § 108.415 is ready for

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use on the fire main system at all times.

§ 109.331 Firehoses and hydrants.

The master or person in charge shall insure that—

(a) At least one length of firehose with a combination nozzle is connected to each fire hydrant required by this subchapter, at all times, except that during heavy weather a firehose in an exposed location may be temporarily removed from the fire hydrant and stowed in an accessible, nearby location;

(b) A fire hose required by this subchapter is not used for any purpose other than firefighting, fire drills, and testing;

(c) Access to each fire hydrant is not blocked;

(d) Each firehose, except a firehose temporarily removed from an exposed location, is stowed on a rack or reel required by this subchapter; and

(e) Each low velocity spray applicator for a fire hose nozzle is attached to the nozzle or stowed next to the fire hydrant to which the fire hose is attached.

§ 109.333 Fire main cutoff valves.

The master or person in charge shall insure that each fire main cutoff valve is open and sealed to prevent closing, except that a cutoff valve may be closed to protect the portion of the fire main system on an exposed deck from freezing.

§ 109.334 Working over water.

The master or person in charge shall insure that each person working over the water is wearing a life preserver or a buoyant work vest.

§ 109.335 Stowage of work vests.

The master or person in charge shall insure that no work vest is stowed where life preservers are stowed.

§ 109.337 Fireman's outfit.

The master or person in charge shall insure that—

(a) At least 2 persons who are trained in the use of the fireman's outfit are on board at all times; and

(b) Each fireman's outfit and its spare equipment is stowed in a separate and accessible location.

(c) A fireman's outfit is not used for any purpose other than fire fighting except as provided in §108.703.

§ 109.339 Location of fire axes.

The master or person in charge shall insure that the fire axes required in §108.499 of this subchapter are located in the enclosures for fire hoses marked in accordance with §108.633 of this subchapter, if the fire axes are not located in plain view.

§ 109.347 Pilot boarding equipment.

(a) The master or person in charge shall ensure that pilot boarding equipment is maintained as follows:

(1) The equipment must be kept clean and in good working order.

(2) Each damaged step or spreader step on a pilot ladder must be replaced in kind with an approved replacement step or spreader step, prior to further use of the ladder. The replacement step or spreader step must be secured by the method used in the original construction of the ladder, and in accordance with manufacturer instructions.

(b) The master or person in charge shall ensure compliance with the following during pilot boarding operations:

(1) Only approved pilot boarding equipment may be used.

(2) The pilot boarding equipment must rest firmly against the hull of the vessel and be clear of overboard discharges.

(3) Two man ropes, a safety line and an approved lifebuoy with an approved water light must be at the point of access and be immediately available for use during boarding operations.

(4) Rigging of the equipment and embarkation/debarkation of a pilot must be supervised in person by a deck officer.

(5) Both the equipment over the side and the point of access must be adequately lit during night operations.

(6) If a pilot hoist is used, a pilot ladder must be kept on deck adjacent to the hoist and available for immediate use.

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

Subpart D—Reports, Notifications, and Records

REPORTS AND NOTIFICATIONS

§ 109.411 Notice and reporting of casualty.

The requirements for providing notice and reporting of marine casualties are contained in Part 4 of this chapter.

[CGD 84-099, 52 FR 47536, Dec. 14, 1987]

§ 109.415 Retention of records after casualty.

(a) The owner, agent, master, or person in charge of a unit for which a report of casualty is made under §109.411 shall insure that all records maintained on the unit are retained on board the unit for at least 3 months after the report of casualty is made or until advised by the Officer in Charge, Marine Inspection, that records need not be retained on board.

(b) The records which must be retained in accordance with paragraph (a) of this section include:

(1) Rough and smooth deck log.

(2) Rough and smooth engine room log.

(3) Tour reports.

(4) Bell books.

(5) Navigation charts in use at the time of casualty.

(6) Navigation work books.

(7) Compass deviation cards.

(8) Gyrocompass records.

(9) Storage plans.

(10) Record of drafts.

(11) Notices to mariners.

(12) Radiograms sent and received.

(13) The radio log.

(14) Personnel list.

(15) Crane record book.

(c) The owner, agent, master, or person in charge shall, upon request, make the records described in this section available for examination by any Coast Guard official authorized to investigate the casualty.

§ 109.419 Report of unsafe machinery.

If a boiler, unfired pressure vessel, or other machinery on a unit is unsafe to operate, the master or person in charge shall report the existence of the unsafe condition to the Officer in Charge, Marine Inspection.

§ 109.421

§ 109.421 Report of repairs to boilers and pressure vessels.

Before making repairs, except normal repairs and maintenance such as replacement of valves or pressure seals, to boilers or unfired pressure vessels in accordance with §50.05-10 of this chapter, the master or person in charge shall report the nature of the repairs to the Officer in Charge, Marine Inspection.

§ 109.425 Repairs and alterations: Fire detecting and extinguishing equipment.

(a) Before making repairs or alterations, except for routine maintenance, minor repairs, or emergency repairs or alterations to fire detecting and extinguishing equipment, the master or person in charge must report the nature of the repairs or alterations to the OCMI.

(b) When emergency repairs or alterations, other than minor emergency repairs, have been made to fire-detecting or fire-extinguishing equipment, the master or person in charge must report the nature of the repairs or alterations to the OCMI.

[CGD 84-069, 63 FR 52816, Oct. 1, 1998]

RECORDS

§ 109.431 Logbook.

(a) The master or person in charge of a unit, that is required by 46 U.S.C. 11301 to have an official logbook, shall maintain the logbook on Form CG-706. When the voyage is completed, the master or person in charge shall file the logbook with the Officer in Charge, Marine Inspection.

(b) The master or person in charge of a unit that is not required by 46 U.S.C. 11301 to have an official logbook, shall maintain, on board, an unofficial logbook for making the entries required by this subpart. This logbook must be retained on board until the unit's next reinspection or inspection for certification.

[CGD 73-251, 43 FR 56828, Dec. 4, 1978, as amended by CGD 95-028, 62 FR 51208, Sept. 30, 1997; USCG-1999-6216, 64 FR 53227, Oct. 1, 1999]

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§ 109.433 Logbook entries.¹

The master or person in charge shall insure that the following applicable entries are made in the logbook required by this subpart:

(a) The date of each test of the steering gear, whistle, general alarm, and communications equipment and the condition of the equipment.

(b) The time and date of each opening and closing, while the unit is afloat, of each required appliance for watertight integrity not fitted with a remote operating control or alarm system and the reasons for the action.

(c) The date of each test of emergency lighting and power systems and the condition and performance of the equipment.

(d) The logbook must include information on emergency training drills required in §109.213(h).

(e) Prior to getting underway, the fore and aft drafts, the position of the loadline marks in relation to the surface of the water, and the density of the water in which the vessel is floating, if in fresh or brackish water.

(f) After loading and prior to getting underway and at all other times necessary to assure the safety of the vessel, a statement verifying vessel compliance with applicable stability requirements as required by §109.227.

(g) The date of each inspection of each accommodation space.

(h) The date of each inspection required in §109.573 if performed by the master or person in charge.

[CGD 73-251, 43 FR 56828, Dec. 4, 1978, as amended by CGD 83-067, 49 FR 39162, Oct. 4, 1984; CGD 89-037, 57 FR 41824, Sept. 11, 1992; CGD 84-069, 61 FR 25303, May 20, 1996]

§ 109.435 Record of fire fighting equipment inspection.

(a) The master or person in charge shall ensure that a record of each test and inspection required in §109.223 is maintained on board, until the unit is reinspected or inspected for certification.

¹NOTE: 46 U.S.C. 11301 requires that certain entries be made in an official logbook, in addition to the entries required by this section; and 46 U.S.C. 11302 prescribes the manner of making those entries.

(b) The record required in paragraph (a) of this section must show—

- (1) The date of each test and inspection;
- (2) The number or other identification of each item of equipment tested or inspected; and
- (3) The name of the person, and the company he represents if any, who conducts the test or inspection.

§ 109.437 Crane record book.

The master or person in charge shall ensure that the following are maintained in a crane record book:

(a) Descriptive information which will identify each crane including—

(1) The API name plate data required by Section 11 of API Spec. 2C, Second Edition, February 1972; and

(2) The rated load chart for each line reeving and boom length which may be utilized.

(b) Information required by Section 3 of the American Petroleum Institute *Recommended Practice for Operation and Maintenance of Offshore Cranes*, API RP 2D, First Edition (October 1972) with supplement 1.

(c) Dates and results of frequent inspections and tests required in paragraph (b) of this section.

(d) Dates and results of periodic inspections and tests required in paragraph (b) of this section.

(e) Date and result of each rated load test.

(f) Date and description of each replacement or renewal of wire rope, hooks, and other load components.

(g) Date and description of each failure of the crane, or any component or safety feature.

(h) Date and description of each repair to the crane structure, boom, or equipment.

§ 109.439 Crane certificates.

The master or person in charge shall insure that the following certificates and records for each crane are maintained on the unit:

(a) Each certificate issued by a crane certifying authority.

(b) Each record and original certificate, or certified copy of a certificate, or manufacturers or testing laboratories, companies or organizations for—

- (1) Loose gear;
- (2) Wire rope; and
- (3) The annealing of wrought iron gear.

Subpart E—Emergency Signals

§ 109.503 Emergency signals.

(a) Emergency stations signals are established as follows:

(1) The signal to man emergency stations is a rapid succession of short soundings of both the general alarm bell and the whistle, if a whistle is installed, for a period of not less than 10 seconds.

(2) The signal to secure from emergency stations is the sounding of both the general alarm bell and the whistle, if a whistle is installed, three times.

(b) The abandon unit stations signals are established as follows:

(1) The signal to man abandon unit stations is a continuous sounding of both the general alarm and the whistle, if a whistle is installed.

(2) If whistle signals are used to direct the handling of lifeboats and davit-launched liferafts, they must be—

(i) One short blast to lower the lifeboats and davit-launched liferafts; and

(ii) Two short blasts to stop lowering the lifeboats and davit-launched liferafts.

(3) The signal to secure from abandon unit stations is the sounding of both the general alarm bell and the whistle, if a whistle is installed, three times.

[CGD 73-251, 43 FR 56828, Dec. 4, 1978, as amended by CGD 84-069, 61 FR 25303, May 20, 1996]

Subpart F—Cranes

§ 109.521 Cranes: General.

The master or person in charge shall ensure that each crane is operated and maintained in accordance with the API *Recommended Practice for Operation and Maintenance of Offshore Cranes*, API RP 2D, First Edition (Oct. 1972) with supplement 1.

§ 109.525

§ 109.525 Cranes: Working loads.

The master or person in charge shall ensure that tables indicating the maximum safe working loads for the various working angles of the boom, where the boom is rated at varying capacities depending on the radius, and the maximum and minimum radius at which the boom may be safely used, are conspicuously posted near the controls and are visible to the operator when working the crane.

§ 109.527 Cranes: Operator designation.

(a) The master or person in charge shall designate, in writing, each crane operator.

(b) The master or person in charge shall ensure that only designated operators operate cranes.

(c) The master or person in charge shall ensure that each designated operator is familiar with the provisions of the API *Recommended Practice for Operation and Maintenance of Offshore Cranes*, API RP 2D, First Edition (Oct. 1972) with supplement 1.

Subpart G—Miscellaneous

§ 109.555 Propulsion boilers.

The master or person in charge and the engineer in charge shall ensure that—

(a) Steam pressure does not exceed that allowed by the certificate of inspection; and

(b) The safety valves, once set, are not tampered with or made inoperative.

[CGD 73-251, 43 FR 56828, Dec. 4, 1978, as amended by CGD 95-028, 62 FR 51208, Sept. 30, 1997]

§ 109.557 Flammable and combustible liquids: Carriage.

The master or person in charge shall ensure that—

(a) Flammable and combustible liquids in bulk are not carried, except as allowed by endorsement to the Certificate of Inspection;

(b) Portable tanks are handled and stowed in accordance with subparts 98.30 and 98.33 of this chapter and the provisions of 49 CFR parts 171 through 179 that apply to portable tanks; and

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(c) Grades B and lower liquids are—

(1) Authorized, by the Commandant, to be carried; and

(2) Carried only in fixed independent or integral tanks.

[CGD 73-251, 43 FR 56828, Dec. 4, 1978, as amended by CGD 84-043, 55 FR 37413, Sept. 11, 1990]

§ 109.559 Explosives and radioactive materials.

Except as authorized by the master or person in charge, no person may use explosives or radioactive materials and equipment on a unit.

§ 109.563 Posting of documents.

The master or person in charge shall ensure that the following are posted under glass in the pilot house or control center:

(a) General arrangement plans for each deck showing—

(1) Each fire retardant bulkhead;

(2) Each fire detecting, manual alarm, and fire extinguishing system;

(3) Each fire door;

(4) Each means of ingress to compartments; and

(5) Each ventilating system, including the location of each damper, fan, and remote means of stopping the fans.

(6) For units constructed on or after September 30, 1997, and for existing units which have their plans redrawn, the symbols used to identify the aforementioned details shall be in accordance with IMO Assembly resolution A.654(16). The identical symbols can be found in ASTM Adjunct F 1626 (incorporated by reference, see § 109.105).

(b) The stability letter issued by the Coast Guard.

(c) Each SOLAS and Coast Guard certificate issued to the unit.

[CGD 73-251, 43 FR 56828, Dec. 4, 1978, as amended by CGD 95-028, 62 FR 51208, Sept. 30, 1997; USCG-2000-7790, 65 FR 58462, Sept. 29, 2000]

§ 109.564 Maneuvering characteristics.

(a) The master or person in charge of each self-propelled unit of 1,600 gross tons and over shall ensure that a maneuvering information fact sheet is prominently displayed in the pilot-house.

(b) For surface type units, the maneuvering information in Subpart 97.19 of this chapter must be displayed.

(c) The maneuvering information requirements for column stabilized, self-elevating, and other units of unusual design will be specified on a case by case basis.

§ 109.565 Charts and nautical publications.

The master or person in charge of a self-propelled unit shall ensure that the unit has the following adequate, up to date, and appropriate items for the intended voyage:

- (a) Charts.
- (b) Sailing directions.
- (c) Coast pilots.
- (d) Light lists.
- (e) Notices to mariners.
- (f) Tide Tables.
- (g) Current Tables.
- (h) All other nautical publications necessary.¹

§ 109.573 Riveting, welding, and burning operations.

Except as allowed by this section—

(a) The master or person in charge shall ensure that there is no riveting, welding, or burning—

- (1) In a fuel tank;
- (2) On the boundary of a fuel tank;
- (3) On pipelines, heating coils, pumps, fittings, or other appurtenances connected to fuel tanks; or
- (4) On the boundary of spaces adjacent to tanks carrying Grades A, B, or C flammable liquids in bulk.

(b) The operations prohibited in paragraph (a) of this section may be allowed if—

(1) An inspection conducted in accordance with the “Standard for the Control of Gas Hazards on Vessels to be Repaired,” N.F.P.A. No. 306-1974, is made—

(i) In ports or navigable waters of the United States, its territories and possessions, by—

(A) A marine chemist certified by the National Fire Protection Association; or

(B) If a certified marine chemist is not available, a person designated by

the Officer in Charge, Marine Inspection; or

(ii) In all other locations by—

(A) A marine chemist certified by the National Fire Protection Association;

(B) If a certified marine chemist is not available, a person designated by the Officer in Charge, Marine Inspection; or

(C) If the persons required in paragraphs (b)(1)(ii) (A) and (B) of this section are not available, the master or person in charge; or a welding supervisor designated, in writing, by the master or person in charge; and

(2) A certificate is issued by the person conducting the inspection stating—

(i) That he conducted the inspection in accordance with the standard in paragraph (b)(1) of this section;

(ii) The operations that may be conducted; and

(iii) A list of precautions to be followed during the operations;

(c) The master or person in charge shall ensure that the precautions in paragraph (b)(2)(iii) of this section are followed.

§ 109.575 Accumulation of liquids on helicopter decks.

The master or person in charge shall ensure that no liquids are allowed to accumulate on the helicopter decks.

§ 109.577 Helicopter fueling.

(a) The master or person in charge shall designate persons to conduct helicopter fueling operations.

(b) Portable tanks are handled and stowed in accordance with subparts 98.30 and 98.33 of this chapter and the provisions of 49 CFR parts 171 through 179 that apply to portable tanks; and

[CGD 73-251, 43 FR 56828, Dec. 4, 1978, as amended by CGD 84-043, 55 FR 37413, Sept. 11, 1990]

§ 109.585 Use of auto pilot.

Except as provided in 33 CFR 164.15, when the automatic pilot is used in areas of high traffic density, conditions of restricted visibility, and all other hazardous navigational situations, the master or person in charge shall ensure that—

(a) It is possible to immediately establish manual control of the unit's steering;

¹NOTE: For U.S. units in or on the navigable waters of the United States. See 33 CFR 164.33.

(b) A competent person is ready at all times to take over steering control; and

(c) The changeover from automatic to manual steering and vice versa is made by, or under the supervision of, the officer of the watch.

APPENDIX A TO PART 109—NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 4-78—INSPECTION AND CERTIFICATION OF EXISTING MOBILE OFFSHORE DRILLING UNITS

1. *Purpose.* To promulgate instructions for the inspection and certification of existing mobile offshore drilling units. This NVIC is also being published as appendix A of 46 CFR Subchapter IA.

2. *Background.* Mobile Offshore Drilling Units are recognized internationally through the Intergovernmental Maritime Consultative Organization as being a "special purpose ship" designed and operated to carry out an industrial function at sea. Contemporary U.S. Vessel regulations in Title 46 CFR do not adequately cover the safety considerations which are unique to the hull and structural designs, industrial equipment and operating procedures incorporated in drilling vessels. To provide appropriate and adequate standards, the Coast Guard with the assistance of the National Offshore Operations Advisory Committee, and following the provisions of the Administrative Procedures Act, developed Subchapter IA, Regulations for Mobile Offshore Drilling Units, 46 CFR Parts 107-109 and amendments to 46 CFR Subchapters "F", Marine Engineering Regulations, and "J", Electrical Engineering Regulations. These regulations, published in FEDERAL REGISTER (43 FR 56788 December 4, 1978) will apply to all units contracted for on or after the effective date of the regulations.

3. *Discussion.* a. This NVIC elaborates the "grandfather provisions" of 46 CFR 107.211 and 107.215 in applying Subchapter IA to the approximately 150 existing ocean-going U.S. flag mobile offshore drilling units. "Existing" Mobile Offshore Drilling Units are those vessels which have been contracted for before the effective date of the regulations including:

(1) Units in Service.

(2) Units under construction.

(3) Units contracted for which are to be constructed and delivered prior to January 1, 1981.

b. Existing *uncertificated* mobile drilling units of which there are approximately 92 of the bottom bearing configuration, i.e., jack-up and submersible types, have not previously been required to comply with vessel inspection regulations. Some units have met the load line requirements of Subchapter "E" for International Voyages. Many of the

older units are not classed by a classification society. Bottom bearing units operating on the Outer Continental Shelf of United States have been required to meet the safety requirements of 33 CFR Subchapter "N" as artificial islands. On January 3, 1979, existing bottom bearing units are subject to the "grandfather provisions" in §107.211(c) of Subchapter IA.

c. Existing *certificated* mobile offshore drilling units, for the purposes of this NVIC, are column-stabilized and ship-shape types of which approximately 58 are currently certificated, or have made application for an original Certificate of Inspection or intend to make application for an original inspection for certification under 46 CFR Subchapter "I" on the basis of the unit being contracted for prior to the effective date of the new regulations. These units may continue to meet the structural, equipment, material and arrangement standards which were applicable to the hull, engineering, electrical and industrial systems when the units were contracted for. In addition they must meet the provisions of d.(1), d.(4)(d), d.(7)(b), d.(8), d.(9), d.(10)(b), d.(11) and d.(12) of paragraph 3 of this NVC in accordance with §107.215(c)(2) of Subchapter IA.

d. *Inspection Provisions for Existing Uncertificated Units.* The intent of the "grandfather" provisions of this NVIC for existing uncertificated units is to ascertain through inspection that the material condition of the unit and its equipment meet reasonable levels of safety. To this end, the following determinations will be made:

- The design, construction and arrangements of the hull, machinery electrical and industrial systems do not reveal manifestly unsafe aspects.

- There is no excessive deterioration of the hull structure or equipment foundations.

- There are no intrinsic fire or explosion hazards.

- There are no personnel hazards such as unguarded moving machinery, potential electrical shock conditions or lack of handrails.

- The unit is seaworthy and exhibits satisfactory stability.

(1) *General.* (a) Repairs and minor alterations to hull structure or equipment may be made to the same standards as the original installation. However, new installations or major alterations which affect vessel or personnel safety shall meet the applicable standards of Subchapter IA.

(b) Existing items of safety equipment not meeting the applicable specifications or requirements set forth in Subchapter IA may be continued in service as long as they are maintained in good working order to the satisfaction of the OCMI. Such safety equipment and installations requiring extensive repairs shall be replaced and shall meet the

applicable specifications and requirements of Subchapter IA.

(c) The OCMI has discretion to accept alternatives or equivalents which meet the established standards, and to give special consideration to departures from the regulations when it can be shown that special circumstances warrant such departures.

(2) *Plan Submittal.* (a) For units not classed by the American Bureau of Shipping or other recognized classification society, (see 46 CFR 108.109) the OCMI must have sufficient plans and information submitted to him which will describe such things as the unit's size, construction, configuration, arrangement of tanks, decks and spaces; and the machinery and electrical installation. In addition, the OCMI may require submittal of any additional data he considers necessary in order to proceed with the original inspections.

(b) For units classed by the American Bureau of Shipping or other recognized classification society, the plans and information described in Subchapter IA §107.305 (a), (b), (v), and (ii) and a general description of the machinery and electrical installation shall be submitted to the OCMI for information. The OCMI may accept continued classification as proof of structural, mechanical, and electrical sufficiency. However, the OCMI may require additional plans and information if necessary.

(3) *Hull Structure.* (a) No structural changes will be required unless manifestly unsafe conditions exist.

(b) Existing uncertificated units must be drydocked or have a special examination in lieu of drydocking as required by 46 CFR, 107-261.

(c) Achievement of one compartment subdivision is not required where extensive modification of the original design would be necessary; however, watertight integrity of the hull and structural boundaries must be maintained. Bulkheads and decks designed to be watertight must be maintained as such where they are penetrated by pipes, electrical cable, reach rods, ventilation systems, etc.

(4) *Stability.* (a) The stability of each existing unit will be reviewed by the Coast Guard. The plans indicated in 46 CFR Subchapter IA §107.305(q) through (u-1) must be submitted to the cognizant OCMI or Merchant Marine Technical Office.

(b) Lightship data from a Coast Guard witnessed and approved stability test is required for each existing, uncertificated unit. Alternatively other evidence of lightship values will be considered on a case by case basis.

(c) In general, compliance with the intact stability standards of 46 CFR Subchapter IA, §§108.303 through 108.309 is required. Where existing units were designed to a lesser standard of stability than that specified in §§108.303 through 108.309, some relaxation based on proven past performance may be

granted at the discretion of the OCMI and limiting conditions, if any, set forth in the operating manual. In no case will the minimum wind speed for adequate stability be reduced below 50 knots.

(d) An operating manual shall be prepared for each unit. Each operating manual must contain the information indicated in 46 CFR Subchapter IA, §109.121(d) and be submitted to the cognizant OCMI or Merchant Marine Technical Office for review.

(5) *Load Line.* (a) All units are required to obtain and maintain a valid Load Line Certificate. The structure and stability of the unit must be proven adequate for the voyages and areas of operation intended.

(b) The American Bureau of Shipping or other recognized classification society will issue Load Line Certificates and conduct initial and annual load line surveys. Coast Guard and the American Bureau of Shipping inspections may be conducted simultaneously, but it is the owner's responsibility to arrange coordinated inspection schedules.

(c) The structural review conducted by the American Bureau of Shipping or other recognized classification society for load line assignment may be accepted by the Coast Guard as proof of structural adequacy of the hull.

(d) The stability review must be completed prior to issuance of a Load Line Certificate. The Coast Guard will inform the American Bureau of Shipping or other recognized classification society of the results of the stability review, and will indicate any stability limitations to be placed on the Load Line Certificate.

(e) Freeboard calculations for self-elevating units with barge type hulls will be made in accordance with 46 CFR, Part 42. The bow height requirements of 46 CFR 42.20-70 may be relaxed to approximately 33% of the normal requirement for barge shapes moving at speeds less than 6 knots. No relaxation of the addition to freeboard for deficiency in sheer is allowed. The freeboard for units other than self-elevating units with barge type hulls will be based upon compliance with the intact and damage stability standards applicable at the time the unit was contracted for.

(f) All units *delivered after the date of this NVIC* regardless of contract date, must obtain a Load Line Certificate as soon as operationally feasible.

(6) *Route and Operating Area Limitations.* (a) Units classed by the American Bureau of Shipping or other recognized classification society for ocean service generally will be certificated by the Coast Guard for ocean routes.

(b) Unclassed units which have proven structural and stability adequacy by continued safe operation in a specific geographic area, such as the Gulf of Mexico, will be limited by the Certificate of Inspection and

Load Line Certificate to that area. To qualify for an unlimited oceans route, such a unit must be reviewed for adequacy of the structure and stability by the Coast Guard and meet the Load Line requirements of d. (5) above.

(c) Any unit which intends to move or operate outside the geographical area indicated on the Certificate of Inspection must receive prior approval from the OCMI.

(7) *Fire Protection.* (a) *Structural fire protection.* All units must meet the provisions of §108.123, Insulation of Combustible Materials and §108.127, Storage Lockers for Combustibles. All existing interior stairways which are open at each end must be enclosed at one level. On units where wood was utilized in the construction of accommodation spaces, each space must be equipped with a smoke or heat detector either battery powered or operating on the AC power supply. All detectors must have the Underwriters Laboratories, Inc., label (UL) or the Factory Mutual Laboratories (FM) label.

(b) *Fire Extinguishing Systems.* Systems and equipment must be provided which will meet or be equivalent to the applicable specifications and provisions required by Subchapter IA. Installed fire extinguishing systems, which provide equivalent or greater protection than systems required by Subpart E, Subchapter IA may be continued in use as long as they are in good material condition and will function as designed. Where practicable, existing washdown systems may be utilized as the firemain. Where wood was utilized in the construction of accommodation spaces, the applicable requirements of 46 CFR Subchapter IA, Table 108.495(a) should be doubled.

(8) *Lifesaving Equipment.* (a) Each unit must have lifesaving equipment (lifeboats and davit launched liferafts) for 200 percent of the total persons allowed on board. Except for submersible type units, the installation of lifeboats for 100 percent of the persons (on board) is required in accordance with 46 CFR 108.503 of Subchapter IA. Consideration will be given to those units where existing arrangement and structure do not provide sufficient room for installation of the lifeboats or where the added weight of the lifeboats, davits and winches will materially reduce the variable load capacity of the unit. In such cases, davit launched inflatable liferafts with a combined personnel capacity of the required lifeboats, and a rescue boat approved by the OCMI may be acceptable equivalents. Submersible type units may substitute Coast Guard approved throw over type inflatable liferafts and an approved rescue boat for the required lifeboats.

(b) For the second part of the total 200 percent primary lifesaving requirement, lifeboats installed in accordance with 33 CFR, Subchapter "N" Part 144 or Coast Guard approved life floats may be retained as pro-

vided for in 3.d(1)(b) of this Circular. They will be considered collectively with the Coast Guard approved liferafts for calculating the amount of equipment to provide for 100 percent of personnel on board.

(c) Adequate access to all lifesaving equipment must be provided.

(9) *Cranes.* (a) Plan approval will not normally be required of any crane which conforms to the specifications of the manufacturer as originally installed. A rated load test as described in §107.260 of Subchapter IA will be required unless the crane has been load tested while under certification by an approved certifying authority as provided for in 46 CFR 107.258. Prior to the rated load test, the crane should be identified by manufacturer and model number to determine that the correct load rating chart is being used. The owner must submit to the OCMI details and calculations of any alterations to a crane which were accomplished without manufacturer's documentation in order to verify the rated load of the crane.

(10) *Electrical.* (a) Multiple power sources do not require an emergency generator; however, storage batteries or approved relay-controlled battery operated lanterns are required to be installed for the emergency lighting system and provide 12 hours of lighting.

(b) Electrical equipment installed in Class I, division 1 and 2 locations, as defined in Subchapter IA, §108.170 must be of a suitable type and in good material condition.

(11) *Unfired Pressure Vessels.* (a) Unfired pressure vessels built and stamped in accordance with Section VIII of the ASME Code may be continued in service as long as they remain in satisfactory condition. At the original and subsequent inspections for certification, ASME Code pressure vessels must be tested and examined in accordance with the requirements in 46 CFR 61.10-5.

(b) Unfired pressure vessels which cannot be identified as being constructed to any recognized standard may be continued in service provided that no obvious defects are noted. These pressure vessels shall be hydrostatically tested to one and one half times the working pressure. For pressure vessels that can not be reasonably hydrostatically tested, nondestructive testing may be used to verify the pressure vessels condition for continued serviceability. These pressure vessels will then be stamped with a Coast Guard identification number and periodically tested and examined in accordance with the requirements in 46 CFR 61.10-5.

(12) *Marine Sanitation Devices.* (a) All units must meet the provisions of 33 CFR Part 159, Coast Guard Marine Sanitation Devices Regulations. The discharge requirements are compatible with the OCS Orders of the U.S. Geological Survey.

4. *Action.* a. The owner of each *existing certificated* unit must provide the cognizant OCMI a proposed plan to accomplish the requirements in paragraph 3. c. of this NVIC within 60 days from the effective date of the regulations. Most items should be approved at the unit's next inspection for certification; however, where major equipment installations are concerned, the owner may be allowed up to two years to comply with the requirements from the time the OCMI completes his assessment of the proposals.

b. *Application for Original Inspection for Certification.* Not later than sixty days from January 3, 1979, application for original inspection for certification of all *existing uncertificated units*, shall be submitted to the appropriate OCMI. The plans or descriptive data specified in paragraph 3.d(2) of this NVIC along with a proposed plan to bring the unit into compliance should, if possible, be submitted with the application for inspection. If not feasible to assemble all required information in this time frame, an estimated date of submittal shall be indicated on the application. Arrangements should be made to commence the original inspection for certification with due consideration for the unit's operating situation.

c. To the extent possible the same inspection team will conduct the inspection of all existing uncertificated units in a geographical area. It may be advantageous to conduct the original inspection in conjunction with an impending special or periodic survey, drydocking or availability period. Units under construction will receive primary consideration by the OCMI for the allocation of time and personnel so that any problems can be identified while the unit is in the most advantageous situation to apply corrections.

d. The variety of designs and arrangements presented by existing uninspected MODU's makes it impractical to prescribe detailed standards for all existing units. The procedures followed to implement this NVC must

provide the necessary flexibility. Items which must be taken into consideration in applying this NVIC are listed below. Categorizing units into groups to which the same items apply will be of value during the inspection process. These items are:

- Type
- Builder
- Model
- Date build
- Classed by ABS or other classification society
- Load Line assignment
- Operating history (including geographical areas)
- Present location

e. *Issuance of the Original Certificate of Inspection.* The intent of the original inspection of *existing uncertificated units* is to identify and commence correction of any unsafe conditions and/or equipment deficiencies and to issue the unit an original Certificate of Inspection. A reasonable period of time will be permitted to correct minor deficiencies. Those items directly affecting personnel safety and health will require immediate attention to correct the unsafe condition. Extensive deficiencies, such as those involving structural aspects or equipment may require up to two years to remedy. Additional times may be allowed if repair facilities are not available to coastal areas adjacent to the unit's area of operation. Where manifestly unsafe conditions are found, the OCMI may require that the unit discontinue operations until such conditions are corrected. If the owner or operator feels aggrieved by the decision of the OCMI, the appeals procedures of 46 CFR 2.01-70 are applicable.

f. Questions concerning this NVIC should be referred to the Commandant (CG-CVC).

[CGD 73-251, 43 FR 56828, Dec. 4, 1978, as amended by CGD 96-041, 61 FR 50730, Sept. 27, 1996; USCG-2009-0702, 74 FR 49233, Sept. 25, 2009; USCG-2012-0832, 77 FR 59781, Oct.1, 2012]