

DEPARTMENT OF TRANSPORTATION**Coast Guard**

46 CFR Parts 90, 98, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 170, 174, and 175

[CGD 82-004 and CGD 86-074]

RIN 2115-AA77

Offshore Supply Vessels

AGENCY: Coast Guard, DOT.

ACTION: Interim rule, with request for comments.

SUMMARY: The Coast Guard is publishing, as an Interim Rule, a complete set of regulations (a whole new subchapter L) applicable to new offshore supply vessels (OSVs), including liftboats, and is providing the opportunity for additional public comment. These regulations are needed to implement statutory changes to the certification and inspection of conventional OSVs, and the certification and inspection of hitherto-uninspected liftboats. They contain many changes to current regulations and policy governing conventional OSVs, contain first-time regulations for liftboats, and make specific revisions to accommodate these vessels' unique characteristics, their methods of operation, and their types of service. These regulations are intended to eliminate the practice of circumventing inspection of certain categories of OSVs and to improve the level of safety of all OSVs, including liftboats, which will now be certificated and inspected.

DATES: This Interim Rule becomes effective on March 15, 1996; comments must be received on or before February 14, 1996. OSVs certificated before March 15, 1996, may either comply with these regulations in their entirety or continue to comply with, and to be certificated under, current regulations and policy. The Director of the Federal Register approves the incorporation by reference of certain publications listed in the regulations as of March 15, 1996.

ADDRESSES: Comments should be mailed to Executive Secretary, Marine Safety Council (G-LRA, 3406) [CGD 82-004 or CGD 86-074], U.S. Coast Guard, 2100 Second Street SW., Washington, DC 20593-0001. The comments and materials referred to in this notice will be available for examination and copying between 8 a.m. and 4 p.m., Monday through Friday, except holidays, at the Marine Safety Council, U.S. Coast Guard, Room 3406, 2100 Second Street SW., Washington, DC

20593-0001. Comments may also be hand-delivered.

A Regulatory Assessment has been placed in the public docket for this rulemaking, and may be inspected and copied at the office of the Marine Safety Council, at the address listed above.

FOR FURTHER INFORMATION CONTACT: James M. Magill, Office of Marine Safety, Security, and Environmental Protection (G-MOS-2), Room 1208c, U.S. Coast Guard Headquarters, 2100 Second Street SW., Washington, DC 20593-0001, (202) 267-1181.

SUPPLEMENTARY INFORMATION:**Request for Comments**

Because of the extended length of time from publication of the Notice of Proposed Rulemaking (NPRM) to publication of this interim rule, the Coast Guard encourages interested persons to participate in this rulemaking by submitting additional written data, views, or arguments. Persons submitting comments should include their names and addresses, identify this rulemaking (CGD 82-004 and CGD 86-074) and the specific section of the rule or related documents to which each comment applies; and give a reason for each comment. Please submit two copies of all comments and attachments in an unbound format, no larger than 8½ by 11 inches, suitable for copying and electronic filing. Persons wanting acknowledgment of receipt of comments should enclose stamped, self-addressed postcards or envelopes.

The Coast Guard recognizes that there are some differences in format and minor differences in terminology between this Interim Rule and the Supplementary Notice of Proposed Rulemaking for Small Passenger Vessel Inspection and Certification (CGD 85-080). The Coast Guard will be examining these differences with the object of attaining uniformity in format and terminology where identical requirements are intended. Differences in requirements may also be reconciled when the final rules for these two projects are published. Comments are invited identifying instances where apparently identical requirements are expressed differently, or where different requirements are imposed that may be candidates for uniform treatment.

The Coast Guard will consider all comments received during the comment period. The rule may be changed in light of comments received.

The Coast Guard plans no public hearing. Persons may request a public hearing by writing to the Marine Safety Council at the address under **ADDRESSES**. The request should include

the reasons why a hearing would be beneficial. If it is determined that the opportunity for oral presentations will aid this rulemaking, the Coast Guard will hold a public hearing at a time and place announced by a later notice in the Federal Register.

Drafting Information: Several offices at Coast Guard Headquarters participated in drafting this interim rule, but the principal persons involved in drafting this rule are James M. Magill, Project Manager, Office of Marine Safety, Security, and Environmental Protection, and Mr. Patrick J. Murray, Project Counsel, Office of the Chief Counsel.

Regulatory History**ANPRMs**

Two Advance Notices of Proposed Rulemaking (ANPRMs) have appeared in this rulemaking.

On February 14, 1983, the Coast Guard published (48 FR 6636) an ANPRM, under CGD 82-004, to provide an early opportunity for public comment on a preliminary draft of a comprehensive set of requirements for inspection and certification applicable to new OSVs. Twenty-four comments were received, on various technical aspects of the proposal. Many of the recommendations from those comments were incorporated into the subsequent Notice of Proposed Rulemaking (NPRM) discussed below.

On April 16, 1987, the Coast Guard published (52 FR 12439) a second ANPRM, under CGD 86-074, asking for specific information to help the Coast Guard in developing specialized regulations for self-elevating OSVs (liftboats). Fourteen comments were received. Many of the recommendations from those comments were incorporated into the subsequent NPRM discussed below.

NPRM

On May 9, 1989, the Coast Guard published, under both CGD 82-004 and 86-074, an NPRM (54 FR 20006). The comment period had originally been scheduled to end on September 6, 1989, but on August 31, 1989 (54 FR 36040), it was extended until December 6, 1989. Included with the extension of the comment period was notice of a public hearing on the proposed rule, which hearing took place at New Orleans, Louisiana, on September 13, 1989. Twenty letters were received, containing one hundred and ninety-four comments on various technical aspects of the proposed rule. Many of the recommendations from those comments have been incorporated in this interim rule.

Discussion of This Interim Rule

Conventional OSVs have traditionally provided a wide range of supply and support to offshore industries extracting oil and minerals. Once, these vessels operated almost exclusively in the Gulf of Mexico; now, they operate worldwide.

Self-elevating OSVs, commonly known as liftboats, are more specialized in their service. These have built-in jacking-systems, which allow them to be "jacked up" above the ocean's surface and to become, in effect, stationary platforms for a temporary period. Once jacked up, these vessels render specific service, such as maintenance and construction, to adjacent offshore structures.

Conventional OSVs

Conventional OSVs are propelled by motor, measure less than 500 gross tons, and engage in short voyages. Until October 6, 1980, these vessels were—

(a) Inspected by the Coast Guard as cargo and miscellaneous vessels under 46 CFR subchapter I, if of over 15 and under 500 gross tons and carrying freight for hire;

(b) Inspected by the Coast Guard as small passenger-vessels under 46 CFR subchapter T, if of less than 100 gross tons and carrying more than six passengers for hire; or

(c) Not inspected by the Coast Guard, because they operated under "bareboat charters".

The vessels under subchapter I were known as "supply boats." Typically, they were of steel construction, carried large amounts of deck cargo, and carried up to 16 persons in addition to the crew on domestic voyages as permitted by 46 U.S.C. 3304 (formerly 46 U.S.C. 882).

The vessels under subchapter T were known as "crew boats." Typically, they were of aluminum or steel construction, were relatively swift, carried limited amounts of deck cargo, and carried a large number of passengers.

Pub. L. 96-378, enacted on October 6, 1980, made important changes to how conventional OSVs were to be inspected by the Coast Guard. (In 1983, the provisions of Pub. L. 96-378 were consolidated, without substantive change, and recodified in Title 46, U.S.C. Subtitle II. Its provisions are now contained principally in 46 U.S.C. 2101(19), 2101(21)(C), 3301(3), 3302(g), 3306, 3307, 3501, and 8301.) Among the changes mandated by Pub. L. 96-378 were the following:

(1) A controversial feature of the offshore-support industry for many years had been its use of contractual arrangements, involving bareboat

charters coupled with operating agreements, to circumvent a requirement for Certificates of Inspection from the Coast Guard. Pub. L. 96-378 eliminated this subterfuge by requiring all OSVs to be inspected.

(2) Pub. L. 96-378 defined an OSV as any vessel that regularly carries goods, supplies, or equipment in support of exploration, exploitation, or production of offshore mineral or energy resources, is propelled by machinery other than steam (is a motor vessel), is not a small passenger-vessel regulated under 46 CFR subchapter T, and is of between 15 and 500 gross tons. (This definition has persisted into 46 U.S.C. 2101(19).)

(3) Pub. L. 96-378 categorized conventional OSVs as follows:

(i) Pre-1979 OSVs—those (a) that were operating in support of the offshore industry on or before January 1, 1979, or (b) that were contracted for on or before that date and that entered into service before October 6, 1980.

(ii) All other OSVs. Since 1980, over 350 conventional OSVs have been certificated under subchapter I or T.

(4) Each conventional OSV, other than a pre-1979 OSV, is currently subject to inspection as follows:

(i) A vessel of more than 15 gross tons but less than 100 gross tons is subject to Coast Guard inspection under subchapter I or T, depending on the owner's preference and the vessel's principal use.

(ii) A vessel of 100 or more gross tons but less than 500 gross tons is subject to Coast Guard inspection under subchapter I.

(5) Each pre-1979 OSV continues to be subject to inspection under subchapter I or T as applicable. On October 20, 1980, the Coast Guard published (45 FR 69242) a final rule requiring that pre-1979 OSVs be registered with Officers in Charge, Marine Inspection, on or before January 6, 1981, and that they be certificated not later than two years from the date of registration. These vessels are not subject to existing regulations on major changes of structure or major replacements of equipment unless compliance is necessary to remove especially hazardous conditions. The legislative history of Pub. L. 96-378 states, in part, that OSVs should "conform as closely as possible to inspection standards applied to new vessels". However, Congress recognized that it would not be practicable to require major changes of structure or equipment on OSVs previously uninspected. Therefore, pre-1979 OSVs are not subject to standards that require those major changes unless the Coast Guard determines that those changes are

necessary to remove unreasonable risks to the vessels or their crews. Note that 46 U.S.C. 2101 as amended now deems OSVs not to be tank vessels and, therefore, relieves them of having to meet requirements applicable to tank vessels for preventing oil pollution.

Liftboats

The high rate of casualties experienced by self-elevating OSVs (liftboats) requires the development of specific regulations that address liftboats' design, stability, construction, and operations. The Coast Guard anticipates that promulgation and enforcement of the regulations in this Interim Rule will render new liftboats substantially safer than their predecessors.

Again, on April 16, 1987, the Coast Guard published (52 FR 12439) an ANPRM, under CGD 86-074, asking for specific information to help the Coast Guard in developing specialized regulations for liftboats. As stated in this ANPRM, the need for regulations was based on the high incidence of casualties involving liftboats, and upon specific safety recommendations made by the National Transportation Safety Board (NTSB) in its review of those casualties.

The Coast Guard conducted its review of the available history of casualties from 1980 to 1987 in advance of the 1987 ANPRM. The review showed that over 20% of the approximately 250 liftboats in the fleet had been involved in reported casualties, resulting in 10 deaths, 33 serious injuries, constructive total loss of 13 vessels, and overall physical damage exceeding \$20 million. Many of these casualties were directly attributable to inadequate design or improper operating procedures. The results of the 1987 review have been incorporated into the Regulatory Assessment referred to above under **ADDRESSES**. The review is also discussed, in more detail, in the following paragraphs.

Until 1988, the Coast Guard regulated liftboats primarily under 46 CFR subchapter C, which contains safety regulations for uninspected vessels. Virtually all liftboats were of under 300 gross tons and were, at that time, believed by the Coast Guard to provide mainly services under contract to the offshore industry; that is, these vessels and their crews were chartered by an operator to perform a particular function or task in support of offshore drilling or production. Since these vessels were of less than 300 gross tons and were not known or believed to be carrying goods and supplies in support of the offshore industry, they stood exempt from the

requirements for inspection and certification under the general provisions of Title 46, U.S.C. (Chapter 33 or Subtitle II).

The high incidence of casualties involving liftboats reflected in the 1987 review made it clear that the requirements in 46 CFR subchapter C were ineffective for promoting liftboats' safe operation. Further, the review showed that these vessels had been routinely carrying goods, supplies, equipment, and offshore workers to offshore structures, as well as performing their traditional function in support of construction and maintenance of offshore structures. Accordingly, the Coast Guard determined in 1988 to inspect liftboats as OSVs under 46 U.S.C. 3301(3). On March 23, 1988, the Coast Guard published guidance for the inspection of liftboats as Change 1 (CH-1) to Navigation and Vessel Inspection Circular 8-81 (NVIC 8-81), "Initial and Subsequent Inspection of Uncertificated Existing Offshore Supply Vessels under Public Law 96-378." On May 21, 1991, the Coast Guard published NVIC 8-91, interim guidance for applying the requirements of Subchapters I and T to existing liftboats, as appears more fully below. NVIC 8-91 cancelled NVIC 8-81 and its CH-1.

Specialized OSVs

The 1987 ANPRM proposed that regulations for liftboats and other specialized OSVs be pursued in two distinct phases: Phase I to address liftboats; phase II to address specialized OSVs engaged in support of diving, of painting and sand-blasting, and so on. An analysis of the histories of casualties and of the operation of these specialized OSVs, conducted as a part of the effort to prepare the NPRM and this interim rule, shows that no additional regulations are necessary for these vessels as they are for liftboats. The requirements for new conventional OSVs in this rule will also apply to these specialized OSVs and should be sufficient to promote their safe operation. Consequently, the Coast Guard does not intend to act further on phase II of the 1987 ANPRM.

Existing OSVs

The Coast Guard has historically tried to let owners and operators of existing vessels, first coming under inspection for certification, continue operation without being unduly penalized by newly promulgated regulations, provided their operations can be conducted safely. Existing conventional OSVs, including pre-1979 OSVs, had been inspected and certificated under

guidance provided in NVIC 8-81, and by additional guidance for inspecting liftboats published as CH-1 to NVIC 8-81. This additional guidance was developed to address the hazards contributing to the high number of liftboat casualties.

CH-1 to NVIC 8-81 extended to liftboats the same consideration permitted for conventional OSVs: relaxation of certain provisions of 46 CFR subchapter I or T. The Coast Guard is conscious of the economic hardship potentially imposed upon owners and operators of existing vessels first coming under inspection for certification. Therefore, in keeping with the intent of Public Law 96-378, it treated existing liftboats differently from new liftboats. CH-1 to NVIC 8-81 did not address features that can be addressed only in the design stage, such as main-hull strength and damage stability, since modification of existing vessels to meet recognized standards in these and other features is very costly. Instead, it limited the areas and conditions of operation according to vessels' design, including leg strength and stability. Over 50 liftboats applied for and received initial inspection for certification under CH-1 to NVIC 8-81.

Recently the Coast Guard became aware of a large number of existing liftboats designed and operated on inland waters or on State waters of Texas and Louisiana. These vessels are typically operated closer to harbors of safe haven than are larger, ocean-going liftboats. In response to requests from representatives of these liftboats, the Coast Guard revisited the issue of initial inspection for certification of existing liftboats. The result was NVIC 8-91. NVIC 8-91 incorporates the guidance of NVIC 8-81 and its CH-1, and provides further guidance toward a level of safety for smaller, existing liftboats equivalent to that for larger, existing or new, liftboats.

NVIC 8-91 is available for inspection and copying in the public docket. Also, copies of it are available from the Commanding Officer, Marine Safety Center; 400 Seventh Street SW., Washington, DC 20590-0001; Attn: NVICs. NVIC 8-91 costs \$1.75, payable, in advance, by check or money order to "Treasury of the United States".

Intent

This interim rule applies to new OSVs: OSVs contracted for after these regulations take effect. It also applies to existing OSVs, including pre-1979 OSVs, if the owners of these OSVs wish.

Many of the requirements in this interim rule are similar to corresponding requirements in 46 CFR

subchapters I and T. The Coast Guard has made every effort to select the most appropriate of those. The Coast Guard, when able, has modified existing regulations to consider the unique operation of OSVs and to recognize many of the policies developed for these vessels throughout the years where equivalent levels of safety have been demonstrated. When existing regulations have seemed confusing or in any way not clear enough as they apply to OSVs, the Coast Guard has made editorial changes. To the extent that this rule addresses the same issues as NVIC 8-91, it addresses them in the same way. The large majority of existing vessels have been certificated for restricted service because of their original designs. However, new liftboats should enjoy a wider and less restrictive scope of operation than those certificated before establishment of these regulations because compliance with standards of structural strength and of stability will render them able to do more.

Associated Regulatory Projects

On February 13, 1990, the Coast Guard published (55 FR 5120) an NPRM, under CGD 89-037, entitled Stability Design and Operational Regulations. On September 11, 1992, it published (57 FR 41812) the final rule. This interim rule subsumes that one. Both incorporate, for inspected vessels, recently adopted amendments to the International Convention for the Safety of Life at Sea, 1974, as amended (SOLAS). Both seek to reduce the potential for vessels' capsizing caused by defective designs or operations. This interim rule adds §§ 131.220 (e), (f), and (g); 131.513; and 131.620(d) to 46 CFR part 131.

Discussion of Specific Provisions, Including Comments on and Changes to the NPRM of May 9, 1989

The Coast Guard sought comments on all aspects of these regulations—from owners, operators, architects, and builders of vessels; material vendors, insurers, surveyors, and other persons involved with OSVs; and interested members of the public. It invited and encouraged interested persons to participate in this rulemaking by submitting written views, data, or arguments. It received 20 letters, containing 194 comments. It evaluated all comments, and incorporated many of their recommendations into this interim rule. Comments received are discussed below. Where section numbers in this rule differ from their counterparts in the NPRM, the counterparts appear in brackets.

One commenter suggested that 46 U.S.C. 3301(3) is flag-blind, and questioned what standards would apply to foreign-flag OSVs. In general, the operation of foreign-flag OSVs would not be permitted, since U.S. Customs has determined that the carriage of goods between offshore platforms in U.S. waters constitutes "coastwise trade" and would, therefore, if accomplished by these OSVs, violate the Jones Act. No OSVs carry goods between platforms in U.S. waters and a foreign port or the U.S. Virgin Islands. Current industry practice and platform locations make such trade highly unlikely.

One commenter asked for clarification of the Coast Guard's intent regarding different rules for OSVs depending on when vessels were built. Vessels previously inspected under 46 CFR subchapter I or T would continue to be inspected under those rules, coming under this interim rule only at the owners' option.

Two commenters stated that applicability provisions should require a vessel to complete significant construction within a reasonable time, to prevent circumvention of the new standards. The Coast Guard agrees and has inserted new § 125.100(c), to require 24 months for construction of the vessel.

One commenter noted that the proposed rule did not adequately address the carriage of Noxious Liquid Substances (NLSs). The Coast Guard agrees and has added § 125.120. It has also updated the provisions of 46 CFR subpart 98.31 and moved them into this section to clarify the carriage of NLSs on OSVs.

Several comments concerned reference in § 125.150 (§ 125.140) to proposed 46 CFR subchapter W (CGD 84-069), Lifesaving Equipment. The manager of that project will consider them along with others related to that project. Rather than refer to lifesaving requirements proposed for subchapter W, this interim rule refers to those already in subchapter I. When proposed subchapter W is promulgated, those of its requirements that govern OSVs will likely go into subchapter L, where part 133 is reserved for them. The Coast Guard has revised § 125.150 (§ 125.140).

One commenter questioned the definition of "cargo gear" in (§ 125.150(d)) and asked how this Interim Rule would treat cranes. Since OSVs seldom carry cargo gear in the traditional sense, but often carry cranes, the Coast Guard enlarged this definition to specifically comprehend cranes. (§ 125.150(d)) has become § 125.160 Crane, which specifically comprehends cranes.

One commenter urged use of "offshore" in the definition of "Restricted Service" in § 125.160 (§ 125.150(w)), parallel to its use in the definition of "Offshore Supply Vessel" in § 125.160 (§ 125.150(s)). A review of the legislative history of applicable statutes discloses no congressional intent to create a regulation-free zone for OSVs operating "inshore or inland." "Offshore" as it figures in "offshore supply vessel" suggests the place where OSVs are designed and intended to operate, not where they happen to be operating at a particular moment. Accordingly, any OSV (including any liftboat)—operating on the navigable waters of the United States, and either carrying goods, supplies, or equipment, or providing service to or support of exploration, exploitation, or production of offshore mineral or energy resources—is subject to inspection. Section 125.160, therefore, does not include the use of "offshore" in the definition of "Restricted Service".

Two commenters indicated the practice of incorporation by reference in § 125.180 (§ 125.170) to be too troublesome and confusing. The practice is a procedure used by Federal agencies to regulate by reference to material already published and available elsewhere. This practice reduces the redundancy and bulk of the Federal Register and of the Code of Federal Regulations.

One commenter pointed out that the current edition, rather than an outdated edition, of the ABS's Rules for Mobile Offshore Drilling Units (MODUs) should be incorporated by reference in § 125.170. The NPRM of May 9, 1989, would indeed have incorporated by reference the Rules for MODUs from 1985. But later editions appeared in 1988 and 1991, and the parts of this final rule governing the leg strength and structural design of liftboats incorporate these instead. There has been considerable discussion in the Coast Guard and industry regarding the new "unity check" equation in the newer editions of the ABS's Rules, especially regarding its applicability to liftboat legs. This rule incorporates by reference the Rules for MODUs from 1994; but, as the preamble points out elsewhere, other forms of the "unity check" may be acceptable too.

One commenter suggested incorporating by reference in § 125.180 (§ 125.170) the standards of either the International Standards Organization (ISO 614, 1095, 3254, 3903, and 5779) or the British Standards Institute (BSI BS MA 24 & 25) for windows used in the side shell and in the deckhouse, and noted that either standard would affect

proposed § 127.420. The Coast Guard does not agree. It has not evaluated either, to determine the impact of requiring their use. They are not known to most small U.S. shipyards, and casualty information has not demonstrated that such detailed standards are necessary. The Coast Guard may in any case accept compliance with them as demonstrating sufficient strength to satisfy the requirements in § 127.420. But it has not changed § 125.180 (§ 125.170).

One commenter suggested rewording (§ 125.180) to clarify the responsibility of the Marine Inspector regarding notice of deficiencies found. The responsibilities of the Marine Inspector are a matter of Coast Guard policy and appear in the Marine Safety Manual, NVICs, and Commandant Instructions. Because they are a matter of policy, because other subchapters concerning inspections leave policy to those sources, the Coast Guard has removed this section.

One commenter thought § 126.100 would give the Marine Inspector too much power to require tests and inspections. The Coast Guard does not agree. To ensure compliance with regulations, the Inspector needs flexibility to increase the scope of an inspection according to the conditions found when a vessel is boarded for whatever reason. The Inspector has to follow guidance from the cognizant OCMI; this, together with the appeal procedures available to the owner, keeps the Inspector from wielding excessive power.

One commenter suggested that § 126.110 require the owner or operator of a vessel to report an accident and make the vessel available for inspection afterward. Casualty reporting is already required under § 131.110, but the Coast Guard agrees that the burden to make the vessel available for inspection after a casualty or when important repairs or renewals are going on should rest with the owner or operator. It has changed § 126.110.

One commenter stated that the Permit to Proceed prescribed by § 126.120 should indicate whether the vessel may carry "goods, supplies, (and) equipment" as well as cargo and offshore workers. The Coast Guard agrees and has reworded § 126.120(c). (§ 126.130), "Inspection of Cargo Gear", and (§ 126.140), "Cranes", have been merged in current § 126.130, "Cranes", because few OSVs carry any cargo gear except cranes.

One commenter urged the Coast Guard to revise § 126.140 (§ 126.150), to delegate drydockings for credit to classification societies' surveyors.

Under the Maritime Regulatory Reform Plan the Coast Guard may, in the future, further delegate responsibilities for inspections to classification societies' surveyors or other third parties. In the meantime in rare cases, considering them on their individual merits, the OCMI may accept alternatives, under the authority of § 125.170 (§ 125.160), if he or she is satisfied that they afford an equivalent level of safety.

On its own the Coast Guard realized that § 126.140 (§ 126.150) did not require an internal structural examination in conjunction with a drydocking for credit. For years it was standard practice to examine the internal structural members whenever a vessel was hauled out or placed on drydock. In 1988 the drydocking regulations in 46 CFR subchapter I changed; now they distinguish between "drydock" and "internal structural" examinations. To clarify the intent of this rule, the Coast Guard has revised § 126.140 (§ 126.150) to specifically require an internal structural examination at the same interval as drydocking, but not necessarily at the same time.

Several commenters asked that § 126.150 (§ 126.160) clarify which OCMI an owner should notify when repairs or alternations are due. The OCMI having jurisdiction in the zone where the repairs or alterations will occur is the one. Section 126.150(a) makes this explicit.

One commenter found confusing the separation of requirements in § 126.150 (§ 126.160) from similar requirements in (§ 131.220) and (§ 131.230), on reporting after certain accidents and reporting before certain repairs. The Coast Guard agrees and has combined all such requirements in § 126.150(a), eliminating (§ 131.220) and (§ 131.230).

One commenter stated that § 126.160(c)(1) (§ 126.170(c)(1)), should apply to a vessel under way and one in port but not to one in a shipyard or in a ship-repair facility, because these last two are subject to requirements of the Occupational Safety and Health Administration (OSHA) in 29 CFR part 1915. The Memorandum of Understanding between OSHA and the Coast Guard indicates, however, that the Coast Guard is the lead agency on inspected vessels. This section persists as proposed.

One commenter urged that the rule treat carriage of 36 or fewer offshore workers not as matter of applicability, as in (§ 125.100(a)(2)), but as an absolute limit, as in (§ 125.180). The Coast Guard agrees; it has shifted the burden of (§ 125.180) into current § 126.170 and eliminated (§ 125.100(a)(2)).

One commenter observed that § 126.170 (§ 126.180) does not address how offshore workers get on and off the vessel. The Coast Guard does not perceive this as a problem and knows of no statistical evidence to suggest that it is. This section persists as proposed.

Two commenters challenged (§ 126.180) over the number of offshore workers on OSV may carry. One commenter held a limit of 36 workers, at least when the vessel was operating overseas, too restrictive while the other held an allowance of more than 12, whatever the circumstances, too permissive. The Coast Guard does not agree with either commenter. The carriage of offshore worker is still limited to 16 on domestic voyages and 12 on international voyages, except aboard vessels designed and constructed to the stringent damage-stability requirements in current § 174.205. The actual number a vessel may carry will depend on the OCMI at the initial Inspection for Certification. The OCMI will consider space on the deck, sizes of the staterooms, availability of seating, number of bunks, number of toilets and washbasins, size of the vessel, and whether the offshore workers will be aboard for more than 24 hours. This section persists as proposed.

One commenter stated that Form CG-3752, "Application for Inspection", called out by (§ 126.230), needs revision. The commenter is right, and the Coast Guard will accomplish this in its next review of its information-collection budget for the Office of Management and Budget (OMB).

One commenter suggested revising § 126.240 to require all pages of the Certificate of Inspection to be visible when posted. The Coast Guard agrees and has reworded § 126.240 accordingly.

Form CG-858, "Certificate of Inspection Amendment", called out by § 126.270, has been discontinued. The Coast Guard has revised § 126.270 accordingly, and updated the Marine Safety Manual, volume II (change 3).

The Coast Guard wishes to emphasize that the inspections called for by § 126.340 and several other sections are the responsibility of the owner or operator in the first instance. Persons authorized by the Coast Guard carry out the inspections, but the owner or operator makes the vessel available without prompting.

One commenter stated that the inspections required by §§ 126.340 and 126.430 should specifically include liftboat legs. The Coast Guard agrees that some inspections should, and has added part 134 (reserved in the NPRM), which comprises added provisions for

liftboats. The inspections required by current §§ 134.110, "Initial Inspection", and 134.120, "Inspection for Certification", specifically include liftboat legs.

Eight commenters stated that (§ 126.350) and (§ 126.440) were confusing, difficult to decipher, too detailed, and verbose. The Coast Guard agrees and has eliminated much of the original text. Section 126.350(b)(3) refers the reader to subpart 94.35 for guidance on the inspection of the installation of lifeboats, rescue boats, davits, and winches. Section 126.440 likewise refers the reader to § 91.25-15.

One commenter stated that the scope of reinspection in § 126.520 should be better defined. The Coast Guard does not agree. Once a vessel has passed inspection and received a Certificate of Inspection (COI), that vessel should be in compliance with the terms of its COI at all future times. To ensure this compliance, the Marine Inspector needs the flexibility to increase the scope of inspections according to conditions found. See the discussion of § 126.100, above.

On January 25, 1990, the Coast Guard published (55 FR 2525) alternative provisions for reinspection of OSVs in foreign ports under CGD 82-004a. These provisions now appear here, incorporated in § 126.530.

Two commenters stated that § 127.110(e), "Electrical engineering", should incorporate § 110.25 of this chapter both for vessels of under 100 gross tons and for vessels of 100 or more gross tons. The Coast Guard does not agree. The electrical requirements for vessels of under 100 gross tons are similar to the requirements in proposed subchapter T, which, in their current form, do not seem to have degraded the safety and reliability of electrical systems. This section persists as proposed.

Section 127.120(b) has changed to reflect the Marine Safety Center's new address.

Three commenters stated that § 127.240, "Means of escape", should require more. The first commenter urged adding that "at least two means of escape from the same deck lead directly to the outside of the deckhouse" and cited an accident where protective metal plates on windows were secured from the outside of the deckhouse. The second urged adding that "all exposed peripheries within five feet of the scuttle be provided with permanent rails or bulwarks". The third urged adding that vertical ladders be strong enough to support 1000 pounds. The Coast Guard disagrees with these additions, but has added § 127.440 to

require that any covering or protection placed over a window or porthole be capable of being readily removed or opened without anyone's having to go onto a weather deck.

Two commenters considered § 127.250, "Ventilation for enclosed spaces", too broad and yet too sparse in detail on remote stopping of ventilation. The requirements for remote stopping appear at § 129.540; adding them to § 127.250 would be redundant.

One commenter found § 127.270(g), on separating crew members' and offshore workers' accommodations impracticable and unnecessary. The NPRM, however, had allowed approval of an alternative arrangement by the OCM; this Interim Rule allows it also.

None commenters stated that § 127.280, now "Construction and arrangement of accommodations for crew members and offshore workers", needed reworking. The Coast Guard agrees and has made several changes. From § 127.280(b)(1) it has dropped the requirements that seating must not be intended for any other use and that seating with crew members is not acceptable. From § 127.280(b)(2) it has dropped the requirement for aircraft-style seating when offshore workers are aboard for more than 12 hours. From § 127.280(b)(4) it has dropped the requirement of separate toilets and washbasins for offshore workers. And from § 127.280(d) it has dropped the requirement that boundary bulkheads and decks separating crew members' and offshore workers' accommodations from machinery spaces must be of "A" class construction as defined by § 92.07-5 of this chapter for vessels of less than 100 gross tons.

One commenter wanted § 127.320, "Storm rails", revised to read that suitable storm rails must be installed in all passageways and at the deckhouse sides, "including in way of inclined ladders"—wherever persons aboard have normal access. The Coast Guard agrees and has corrected this section.

Two commenters stated that every covering or protection placed over a window or porthole during heavy weather should be capable of being readily removed or opened without anyone's having to go onto a weather deck. The Coast Guard agrees and has added § 127.440, "Operability of Window Coverings".

One commenter wanted § 127.420 to require windows and portholes to meet standards of the British Standards Institute if the vessel operated on oceans or partially protected routes. The Coast Guard disagrees because it has not evaluated these standards to determine the impact of their use, because they are

not known to most small shipyards, and because reports and statistics on casualties have not demonstrated their necessity. This section persists as proposed.

One commenter stated that there is an enormous difference between vital systems for lifeboats and those for conventional OSVs and that § 128.130 should reflect this. The Coast Guard disagrees, respecting most vital systems. However, to affirm the stature of liftboat-jacking systems as vital systems it has moved its treatment of these from this section to part 134.

One commenter stated that the constraint on design ordained by (§ 128.310(b)), "the use of a fuel with a flashpoint of lower than 110 degrees F. must be specifically approved by Commandant (G-MMS), except in an engine for a gasoline-powered rescue boat", would be more appropriate in subpart I of part 131 as a constraint on operations. The Coast Guard does not agree. This constraint should influence the design, and the builder should seek the Commandant's approval, if necessary, early in design so any changes may occur before actual construction begins. This section persists as proposed.

One commenter stated that § 128.440 is too broad to establish minimum standards for designers and builders and that liftboats would have to meet the same requirements for bilge systems that MODUs already have to meet. The Coast Guard agrees in part. This section now contains paragraphs (a) and (b). Paragraph (a) reads, "Except as provided by this section, each bilge-system installation must comply with §§ 56.50-50 and 56.50-55 of this chapter". Paragraph (b) comprises the text proposed for § 128.440 as a whole.

One commenter believed that most switchboards aboard liftboats are too small for handrails as required by § 129.330(c). The Coast Guard does not agree. A non-conductive handrail is essential to the safety of crew members when operating the switchboard in any kind of seaway. This section persists as proposed.

One commenter stated that § 129.440(a) should also require emergency lighting in the engine room. The Coast Guard agrees and has reworded the section to include working (machinery) spaces.

One commenter stated that § 129.530 should not exempt vessels of under 100 gross tons from installing a general alarm. The Coast Guard agrees and has reworded this section.

One commenter stated that § 129.540(a) should not exempt vessels of under 100 gross tons from installing

remote stopping-systems. The Coast Guard does not agree. Elsewhere, this interim rule requires vessels of under 100 gross tons to have remote means of shutting down ventilation and a means of shutting down main propulsion machinery, both from the pilothouse. This section persists as proposed.

One commenter called redundant the requirement of § 130.120(c), that a vessel have a propulsion-control system operable from the pilothouse that shuts down main machinery independent of the remote stopping-system required by § 129.540(b)(1). The Coast Guard agrees and has changed § 130.120(c) so that a system in compliance with § 129.540 is also, by that fact, in compliance with § 130.120.

One commenter stated that § 130.120(d) should require most OSVs with controllable-pitch propellers to fail in the ahead mode since they normally back into rigs but should require most liftboats with controllable-pitch propellers to fail in the astern mode since they normally head into rigs. The Coast Guard disagrees. Statistics on accidents do not establish this as a problem. Maneuvering in a harbor or in close quarters with other vessels could prove disastrous if controllable-pitch propellers failed in any mode that causes the propulsion engine to over speed or the pitch of the propellers to increase. This section persists as proposed.

One commenter stated that § 130.130(j)(4) was unclear about the meaning of "materially equivalent". When a hydraulic-helm steering-system is installed with a duplicate power system for the main steering gear, the duplicate power system may be used to operate winch motors on deck or similar equipment if its hydraulic piping, for instance, is essentially identical to that of the steering system.

One commenter asked whether an "orbitrol-type" system counts as a hydraulic-helm steering-system according to § 130.140(a)(2). An orbitrol system is a type of hydraulic-helm steering-system.

One commenter stated that the reference by § 130.140(b)(15) to the "hydraulic helm unit" should be eliminated. The Coast Guard agrees, and has changed the section to read "Manual capability to center and steady the rudder if the vessel loses normal steering power."

One commenter stated that liftboats approach docks and offshore platforms head on and that, therefore, § 130.140 should not require after steering. After steering enters § 130.140(a)(1) by reference to subchapter F (§ 58.25-50), which does not require it if the steering

system complies with standards embodied in § 130.140(b) and if the vessel has adequate visibility when going astern. This section persists as proposed.

The requirement for gas masks in § 130.230 (§ 130.240) has given way to CGD 86-036, "Updating Approval and Carriage Requirements for Breathing Apparatus", published (57 FR 48320) as a final rule on October 23, 1992. Now a self-contained breathing apparatus (SCBA) is required for each refrigeration system exceeding 20 cubic feet of storage capacity and using ammonia or other hazardous gas, or exceeding 1000 cubic feet of storage capacity and using a fluorocarbon as refrigerant.

Two commenters called excessive the requirement in § 130.240 (§ 130.250), that liftboats comply with the ABS's rules for anchors. One commenter stated that the ABS's rules are an option for MODUs and should be for liftboats. The other stated that liftboats do not and would not use anchors often, and that this rule should allow smaller anchors than those allowed by the ABS's rules. The Coast Guard does not agree. Only MODUs that are not self-propelled and are towed from place to place are free to ignore those rules. Liftboats do not fit in that category; they need anchors in emergencies. They may, however, comply with rules from other classification societies instead of the ABS's rules, upon approval of the Commandant. This section persists as proposed.

One commenter stated that a new section should be added to require cargo fittings on weather decks to provide adequate lashing-points for deck cargo. The Coast Guard considers a uniform requirement on lashing an unnecessary economic burden and will leave the matter to the owners' desires.

One commenter found the requirements in §§ 130.310 for a marine radar and 130.320 for an electronic position-fixing device inadequate to assure navigational safety. The Coast Guard disagrees. There is a wide variety of radar and electronic position-fixing devices available, at many different prices. The Coast Guard does not prefer one to another. These sections persist as proposed.

Two commenters wanted a new section requiring Navtex receivers and fathometers. The Federal Communications Commission required on August 1, 1993 (47 CFR 80.1065(b)(1)), that OSVs of 300 or more gross tons carry Navtex receivers. The Coast Guard will not require that OSVs of under 300 gross tons do the same. OSVs are in constant contact with their bases or the offshore facilities they are

serving. Using the required charts and electronic position-fixing devices, vessels will know depths of water well enough without fathometers. The Coast Guard considers a uniform requirement an unnecessary economic burden and will leave the matter to the owners' desires. No section was added.

One commenter wanted a new § 130.330(c) specifying that, "when operating in foreign waters, an OSV may carry an appropriate foreign equivalent of any" domestic item "required by paragraph (a) of this section." The Coast Guard agrees and has added this wording.

One commenter wanted a new subsection in § 130.440 to require a public-address system for announcing instructions, advisories, and emergencies from the pilothouse. The Coast Guard disagrees. A general alarm in accordance with § 129.530 should serve to alert crew members and offshore workers to emergencies. This section persists as proposed.

Two commenters wanted all voids covered by § 130.460(b)(1), which already requires sensors for the high-bilge-level alarm in each space below the deepest load waterline that contains pumps, motors, or electrical equipment. The Coast Guard disagrees. This would be an unnecessary economic burden because the flooding of voids without apparent reason and without crew members' knowledge has not been a cause of casualties to OSVs. This section persists as proposed.

One commenter wanted a new subsection in part 131, proposed subpart I, "Markings on Vessels", to require markings on main decks over integral fuel and buoyancy tanks, to alert personnel where not to use tack welds when securing deck cargo. The Coast Guard disagrees. Using tack welds to secure deck cargo is inconsistent with sound policy for welding and burning on inspected vessels. Proposed subpart I has become current subpart B; otherwise, the subpart persists as proposed.

One commenter stated that § 131.220(c) (§ 131.920(b)) did not clearly indicate the datum line for draft measurements. The Coast Guard disagrees. This section persists as proposed.

One commenter stated that § 131.340(a)(5) (§ 131.340(1)(v)) was unclear where offshore workers should sit and what "evenly distributed" means. The Coast Guard disagrees. The workers should be seated and evenly distributed in the area specified by § 127.280(b)(1) (§ 127.280(a)(1)). Section § 131.340(a)(5) (§ 131.340(1)(v)) persists as proposed.

One commenter urged that the instruction in § 131.340(a)(6) (§ 131.340(1)(vii)) to don lifejackets and immersion suits should be reworded. The Coast Guard agrees. Only if immersion suits are required aboard should offshore workers have to don them. The Coast Guard has reworded this section.

One commenter recommended that the Coast Guard develop—instead of § 131.420(c)(2), under which the OCMI may permit persons practiced in the handling of liferafts to substitute for deck officers, able seamen, and certificate persons—an appropriate scheme of testing and endorsement for persons in charge of survival craft. The whole point of § 131.420(c)(2) is to require either persons tested and endorsed, or persons demonstrably competent by standards less rigid, to be in charge of survival craft. But the Coast Guard will consider this recommendation while developing a rule to revise 46 CFR part 12, "Certification of Seaman".

One commenter suggested that in § 131.505(a) the word "voyage" should be replaced by "away from shore". The Coast Guard agrees and has reworded this section.

One commenter stated that § 131.560 as written was directed mainly at liftboats and should be rewritten to be directed at OSVs in general. The Coast Guard disagrees. Every word applies with full force to OSVs in general. This section persists as proposed.

One commenter recommended that § 131.580 cover the servicing of inflatable buoyant apparatus. The Coast Guard agrees and has reworded this section.

One commenter suggested that in § 131.610(a) the words "Each OSV" should read "Each vessel". The Coast Guard disagrees. This subchapter deals only with OSVs, even though some are liftboats. This section persists as proposed.

The Coast Guard has reworded § 131.860(b) to eliminate both paragraph (1)—and with it a reference to SOLAS—and paragraph (2), and to clarify its intent on the length of the painter.

One commenter recommended that § 131.865 cover the marking of inflatable buoyant apparatus. The Coast Guard agrees and has reworded this section.

One commenter suggested that the markings prescribed by § 131.893 for watertight doors and hatches read "WATERTIGHT DOOR—KEEP CLOSED EXCEPT FOR PASSAGE" and "WATERTIGHT HATCH—KEEP CLOSED WHEN NOT IN USE". The Coast Guard agrees and has reworded this section.

One commenter recommended adding "operating a vessel while intoxicated" to the grounds of criminal liability set forth by § 131.905(a)(3) (§ 131.1005(a)(3)). The Coast Guard disagrees because the section already implies those grounds.

Several commenters expressed the concern that, considering the service of OSVs, hand-operated fire pumps were inadequate on OSVs under 65 feet in length. The Coast Guard disagrees. The requirements in § 132.100 are similar to those in proposed subchapter T, which are similar to those in current subchapter T, which have caused no perceptible decline in safety. This section persists as proposed.

One commenter stated that § 132.120(j) could be construed to prohibit a ballast pump from use as a backup or standby fire pump. It can indeed be so construed, where a ballast pump is "connected to a line for flammable or combustible liquid"; the Coast Guard wants it so construed, there—though not elsewhere. This section persists as proposed.

The Coast Guard has incorporated Chapter 4 of NFPA 10 into § 132.350(c)(1) as the standard to use when inspecting and testing portable fire extinguishers. It has deleted the requirements for portable fire extinguishers in proposed Table 132.350(a). It has combined the requirements for semiportable and fixed fire-extinguishing systems in proposed Tables 132.350 (a) and (b) into Table 132.350.

After reviewing spoken comments, made during the hearings in New Orleans, and written comments, the Coast Guard has consolidated items peculiar to liftboats spread throughout the NPRM into previously reserved part 134, now entitled "Added Provisions for Liftboats." Part 133 is reserved for "Lifesaving Systems".

Two commenters will applaud § 134.140(a)(1), which clarifies a matter left ambiguous by proposed § 127.210(b)(1): whether the main hull of a liftboat constitutes part of the "supporting structure". It does, and must comply with section 3.11 of the ABS's Rules for Building and Classing Mobile Offshore Drilling Units.

Five commenters found a "K" factor of 2 for leg strength in § 134.140(a)(3) (§ 127.210(b)(3)) too restrictive. A "K" factor of 2 is conservative and in any case is just a starting-point. Section 134.140(a)(3) (§ 127.210(b)(3)) remains as before. The Coast Guard realizes that there may be any number of ways to calculate leg strength, so it has retained § 134.140(b) (§ 127.210(c)), to allow use of the standards of any classification

society, or other established standard acceptable to Commandant (G-MMS), in determining structural strength.

Four commenters found the requirement in § 134.150(a), (§ 128.460), for design of rack-and-pinion jacking-systems to the standard of American Gear Manufacturer's Association inappropriate because the systems operate in a low-duty-cycle, slow, non-reversing, nearly static condition. The Coast Guard agrees and has rewritten § 134.150(a) (§ 128.460) so that these systems must comply with sections 4/1.13.1 through 4/1.13.3 of ABS's Rules for Building and Classing Mobile Offshore Drilling Units.

Four commenters stated that the requirement in § 134.150(b) (§ 130.210), for a loss of power or a failure of any one component if the liftboat-jacking system to activate an alarm, is impracticable. The Coast Guard agrees and has revised § 134.150(b) to require a visible and audible alarm for loss of power, loss of pressure in the hydraulic system, or low hydraulic-fluid level at the operating station.

Three commenters suggested requiring a tilt-level alarm on liftboats. The Coast Guard disagrees. A liftboat constructed to these rules will enjoy an increased level of safety over existing liftboats, and a tilt-level alarm is not essential for vessel safety. Owners may or may not install a tilt-level alarm, according to their desires.

Section 134.170 revises the requirement in (§ 131.1085), that each liftboat carry an operating manual. For the reference to § 109.212(c) it substitutes its own list.

To address the unique operating characteristics of liftboats, the Coast Guard has added § 134.180. This requires piping for fire-main suction while a liftboat is elevated.

Ten commenters opposed, or raised questions concerning, the requirement in (§ 174.180), that liftboats meet the same criteria for stability, whether intact or damaged, as conventional OSVs. It was never the Coast Guard's intention to impose on liftboats criteria for stability of conventional ship-shaped hulls.

Liftboats inspected under subchapter L need not meet the criteria in current subpart G of part 174 of subchapter S. Liftboats in unrestricted service must now, according to § 174.250, meet the same criteria for intact, damaged, and on-bottom stability as MODUs in subpart C of part 174 of subchapter S. Liftboats in restricted service must now, according to § 174.255, meet the criteria for intact, damaged, and on-bottom stability in § 174.255 itself. Both sets of criteria for liftboats inspected under subchapter L—in unrestricted service,

and in restricted service—closely follow guidelines of NVIC 8-91.

Three commenters opposed liftboats' having to meet criteria for damaged stability in §§ 174.195-205. As outlined above, these criteria for damaged stability in subchapter G do not now apply to liftboats, since now all criteria for damaged stability for liftboats is contained in subpart H.

Three commenters stated that designing vessels to the criteria for damaged stability in § 174.205 is too hard. The Coast Guard disagrees. Vessels have already been designed, and built, to these criteria. Anyway, more stringent criteria for survivability are warranted for vessels that carry more than 16 offshore workers, and § 174.205 applies only to vessels that do.

Two commenters stated that all OSVs, including liftboats, should have to meet the standards for survivability of § 174.205(e), whether they carry more than 16 offshore workers or not. The Coast Guard disagrees. Damaged stability is not necessary on small passenger-vessels or small miscellaneous vessels unless the number of people aboard causes special concern; at least no statistical or anecdotal evidence suggests that it is.

One commenter found the intent of proposed § 174.205(f) unclear. So, on a later look, did the Coast Guard. Section 174.205(f) now reads: "For paragraph (a) of this section, the buoyancy of any superstructure directly above the side damaged must be considered in the most unfavorable condition."

The dimension requirement in § 174.220(a)(1) for hatches extending above the weather deck has been changed from 12 inches to 17½ inches to conform with loadline regulations in § 42.15-25(a)(ii) of this chapter. Also the dimension requirement in § 174.220(d) for watertight coamings in conjunction with weathertight doors has been changed from 6 inches to 15 inches to conform with loadline regulations in § 42.15-10(b) of this chapter.

One commenter recommended adding a statement to § 174.255(c) (§ 174.250(e)), that unless a liftboat could endure 100 knots of wind under severe-storm conditions it would be limited to service within 12 hours of a harbor of safe refuge. The Coast Guard disagrees. The definition of "restricted service" in § 125.160 already imposes this limit. Another commenter stated that § 174.255(c) (§ 174.250(e)), requires the same on-bottom stability for a liftboat in restricted service as for a MODU, or for a liftboat in unrestricted service. A liftboat in restricted service must endure 70 knots of wind under normal operating-conditions through its

area of operation and 100 knots under severe-storm conditions in a safe location, if the safe location is other than a harbor of safe refuge. A MODU, or a liftboat in unrestricted service, must endure 70 knots of wind under normal operating-conditions everywhere and 100 knots under severe-storm conditions everywhere. To better clarify this, the Coast Guard has added to § 174.255(c): “* * * winds of 70 knots under normal operating-conditions and of 100 knots for severe-storm conditions when elevated in a safe location, if this location is other than a harbor of safe refuge.”

One commenter suggested adding another section to § 174.255 (§ 174.250), requiring that a vessel show reserve leg-height while both jacked up and subject to 100 knots of wind if it would qualify for unrestricted service. The Coast Guard disagrees. It considers reserve leg-height in determining a route, given restricted service, not in determining whether a liftboat qualifies for unrestricted rather than restricted service.

One commenter called arbitrary a requirement in § 174.260 (§ 174.255), of 24 inches as minimum freeboard for liftboats. The Coast Guard disagrees. The requirement of 24 inches as minimum freeboard first appeared in CH-1 to NVIC 8-81 on March 23, 1988, and since then has become accepted by industry as prudent for avoiding the adverse effects of water on deck.

Incorporation by Reference

The Director of the Federal Register has approved the material in § 125.180 for incorporation by reference under 5 U.S.C. 552 and 1 CFR part 51. The material is available as indicated in § 125.180.

Units of Measure

This interim rule employs British units of measure throughout. Federal policy now favors “hard metric” throughout. In the absence of compelling reason to the contrary, the final rule will employ metric units of measure throughout.

Regulatory Assessment

This interim rule is a significant regulatory action under section 3(f) of Executive Order 12866 and is significant under the regulatory policies and procedures of the Department of Transportation (44 FR 11034 (February 26, 1979)). It has been reviewed by the Office of Management and Budget under that Order. The Coast Guard has prepared a Regulatory Assessment and placed it in the rulemaking docket. The assessment may be inspected and

copied at the address listed under **ADDRESSES**, above.

a. Costs for Conventional OSVs

As of December 1987, there were 584 OSVs certificated, 407 of which were of 100 or more gross tons. In evaluating the effect of this interim rule, the Coast Guard considered all costs and benefits of this rule in constant dollars.

The added cost to construct a conventional OSV under this rule, compared to that under existing regulations, expressed as a percentage of the initial construction cost for each OSV, comes to:

1. Around 2.3 percent for each conventional OSV of less than 100 gross tons.
2. Around 0.5 percent for each conventional OSV of 100 or more gross tons.

If 90 large OSVs and 50 small OSVs are built in the six years after the rule becomes effective, the cost of this rule to the industry will come to around \$0.8 million a year.

Since 1987 there have been few, if any, OSVs built, because of the downturn in the offshore industry. For this reason the Coast Guard's assumption on the number of OSVs to be built in the next 6 years may be inappropriate. The Coast Guard encourages comments from industry on the current cost to construct an OSV and on the estimated number of OSVs that might be built in the next 6 years.

The principal benefits of this rule will be (1) a vessel better equipped, with the authorization to carry more than twice as many offshore workers and up to full capacity of the tanks for liquid drilling-fluid; (2) increased safety for crew members and offshore workers, due to the damage-stability requirements; (3) a vessel less likely to suffer damage resulting in total loss of the vessel; and (4) a crew better prepared to deal with emergencies. The economic value of these benefits is difficult to quantify, as it depends on a vessel's design, operational procedures, and contractual arrangements. However, even if this rule saves just 30% of the expense of damages due to casualties, the economic value—quite apart from the first, second, and fourth of the four “principal benefits”—of this rule will more than offset the economic costs.

b. Costs for Liftboats

This Interim Rule will affect small business-entities in the form of liftboats. (See Small Entities, below.) These vessels have not had to meet standards of Coast Guard inspections. Because the Coast Guard has seldom dealt with liftboats during design and construction,

it has no accurate mechanism for determining additional costs that may be incurred by owners of new liftboats required to meet this rule. In the NPRM, the Coast Guard sought information concerning such costs that might be borne by owners and operators of liftboats resulting from newly imposed inspection requirements. One written comment did offer a few data associated with costs. Based upon those data, modifications to the draft regulatory evaluation came about.

The Coast Guard reached several designers, builders, and owners of liftboats as it prepared this final rule. These people estimated that a large liftboat (of less than 300 gross tons with legs 200 feet long) would cost between \$2 and \$4 million to design and build, while a liftboat of less than 100 gross tons would cost about \$1 million to design and build. These people believe that, if design took account of this rule from the start, the non-recurring cost associated with construction of a liftboat would be minimal—not more than 5% above the current estimated construction cost. If it were 10% above, the non-recurring cost would come to \$100,000 for a liftboat of less than 100 gross tons and between \$200,000 and \$400,000 for a liftboat of 100 or more gross tons. Elements of this non-recurring cost include:

1. Submittal of plans to the Coast Guard.
2. Preparation and submittal of a comprehensive operating manual to the Coast Guard.
3. Design and construction of a fail-safe jacking-system.
4. Piping for fire-main suction while the liftboat is elevated.
5. Compliance with stricter requirements for lifesaving equipment.

There would be no recurring cost associated with this rule. There is recurring cost associated with salaries of crew members, with periodic testing and drydocking, and with biennial inspections and reinspections, but this rule does not compound it.

The economic value due to the “principal benefits”, of casualties and fatalities prevented, is the saving to the liftboat industry offered by this rule; it comes from the annual averages for the liftboat fleet, 1981 to 1986. The Coast Guard has reviewed the casualty and fatality records from 1987 through 1994 for liftboats and has deduced that the casualty and fatality statistics follow the same general trend as they did in previous years. Therefore, the average cost per casualty will not be affected by recent statistics. However, since 1987 there have been few, if any, liftboats built, because of the downturn in the

offshore industry. For this reason the Coast Guard's assumption on the cost to build a liftboat may be inappropriate. The Coast Guard encourages comments from industry on the current cost to build a liftboat and on the estimated number of liftboats that might be built in the next few years. The Coast Guard believes that this rule will reduce the average cost of total losses in the liftboat fleet, compared to that of total losses in the fleet of conventional OSVs, by around 75-87 percent. This reduced cost of liftboat losses will amount to about \$65,874 for a liftboat of less than 100 gross tons, which is less than the estimated \$100,000 for a new liftboat in added costs of construction. Similarly, for liftboats of 100 or more gross tons, the reduced cost of casualties will be about \$183,100, which is near the low end of the range estimated for a new liftboat in added costs of construction, \$200,000-\$400,000.

It is difficult to gauge the impact of this rule on the liftboat industry as a whole since those consulted know of no plans for construction of new liftboats and since the Coast Guard holds only informal estimates of the added costs of construction that may be incurred. New liftboats would enjoy some unquantifiable benefits heretofore limited to conventional OSVs (for example: carriage of unlimited quantities of Grade-E liquid drilling-mud and up to 36 offshore workers). These unquantifiable benefits, when added to the anticipated reductions in casualty costs discussed above, outweigh the estimated added cost of construction.

Environment

The Coast Guard considered the environmental impact of this Interim Rule and concluded that under paragraph 2.B.2 of Commandant Instruction M16475.1B, the rule is categorically excluded from further environmental documentation because of the inconsequential effects that it expects the rule to have on the environment. A Categorical Exclusion Determination is available in the docket for inspection or copying where indicated under **ADDRESSES**.

Compatibility With International Standards

The Coast Guard has adopted a policy to evaluate current and new rules and, as far as possible, to eliminate requirements that create an unwarranted differential between domestic rules and responsible international standards. The Coast Guard has therefore compared this interim rule to international standards. The Coast Guard has determined that

this rule does not unnecessarily establish requirements in excess of international standards.

Federalism

The Coast Guard has analyzed this rulemaking in accordance with the principles and criteria in Executive Order 12612, and has determined that the rulemaking does not have sufficient implications for federalism to warrant the preparation of a Federalism Assessment. There were no comments submitted to the public docket addressing federalism.

Small Entities

In accordance with the Regulatory Flexibility Act (5 U.S.C. 601 through 612), the Coast Guard has considered whether this rulemaking is likely to have a significant economic impact on a substantial number of small entities. "Small entities" include independently owned and operated small businesses that are not dominant in their field and that would otherwise qualify as "small business concerns" under section 3 of the Small Business Act (15 U.S.C. 632).

There are about 70 natural or corporate persons that own one conventional OSV apiece. (They account for about 12% of existing conventional OSVs.) The Coast Guard does not anticipate that there can be many more than 20 persons that will own one new conventional OSV apiece. (It reaches this figure by assuming that they would likewise account for about 12% of the anticipated 140 new conventional OSVs to be built in the next six years, or for about 3 a year.) Marginal, one-time, out-of-pocket expense for initial construction will not exceed 2.5%, as previously discussed, even if none of the operational improvements in safety or flexibility (or other unquantifiable benefits) are realized. Recurring operational expense will be nil.

There are 5 natural or corporate persons that own one liftboat apiece. (They account for about 2% of existing liftboats.) The Coast Guard does not anticipate that there can be many more than one person that own one new liftboat apiece. (It reaches this figure by assuming that they would likewise account for about 2% of the anticipated new liftboats to be built in the next six years.) Marginal, one-time, out-of-pocket expense for initial construction will not exceed 10% even if none of the operational improvements in safety or flexibility (or other unquantifiable benefits) are realized. Recurring operational expense will be nil.

Acting upon these estimates, the Coast Guard certifies under section

605(b) of the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) that this interim rule will not have a significant economic impact on a substantial number of small entities.

Collection of Information

This rulemaking contains information-collection requirements in the following sections of 46 CFR:

- 126.120
- 126.140
- 126.150
- 126.160
- 126.230
- 126.240
- 126.260
- 126.270
- 126.320
- 126.330
- 126.420
- 126.510
- 126.530
- 127.100
- 127.110
- 127.210
- 128.120
- 128.210
- 128.220
- 128.240
- 129.220
- 129.320
- 129.375
- 130.130
- 130.330
- 130.480
- 131.110
- 131.210
- 131.220
- 131.230
- 131.310
- 131.320
- 131.330
- 131.340
- 131.350
- 131.505
- 131.510
- 131.515
- 131.520
- 131.525
- 131.530
- 131.535
- 131.545
- 131.550
- 131.565
- 131.570
- 131.590
- 131.610
- 131.620
- 131.630
- 131.730
- 131.805
- 131.810
- 131.815
- 131.820
- 131.825
- 131.830
- 131.835
- 131.840

131.845
 131.850
 131.855
 131.860
 131.865
 131.870
 131.875
 131.880
 131.885
 131.890
 131.893
 131.896
 131.899
 131.930
 131.945
 131.950
 131.955
 132.110
 132.130
 132.210
 132.220
 132.360
 134.130
 134.140
 134.160
 134.170
 174.210
 174.255

The information-collection requirements have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 *et seq.*), and approved under approval number 2115-0592.

List of Subjects

46 CFR Part 90

Administrative practice and procedures, Authority delegation, Cargo vessels, Hazardous materials transportation, Marine safety, Offshore supply vessels, Oil and gas exploration, Vessels.

46 CFR Part 98

Cargo vessels, Hazardous materials transportation, Marine safety, Reporting and recordkeeping requirements.

46 CFR Part 125

Administrative practice and procedures, Authority delegation, Hazardous materials transportation, Incorporation by reference, Marine safety, Offshore supply vessels, Oil and gas exploration, Vessels.

46 CFR Part 126

Authority delegation, Hazardous materials transportation, Marine safety, Offshore supply vessels, Oil and gas exploration, Reporting and recordkeeping requirements, Vessels.

46 CFR Part 127

Authority delegation, Hazardous materials transportation, Marine safety,

Offshore supply vessels, Oil and gas exploration, Reporting and recordkeeping requirements, Vessels.

46 CFR Part 128

Hazardous materials transportation, Main and auxiliary machinery, Marine safety, Offshore supply vessels, Oil and gas exploration, Vessels.

46 CFR Part 129

Electric power, Hazardous materials transportation, Marine safety, Offshore supply vessels, Oil and gas exploration, Vessels.

46 CFR Part 130

Hazardous materials transportation, Marine safety, Offshore supply vessels, Oil and gas exploration, Vessels, Vessel control and automation.

46 CFR Part 131

Hazardous materials transportation, Marine safety, Navigation (water), Offshore supply vessels, Oil and gas exploration, Operations, Penalties, Reporting and recordkeeping requirements, Vessels.

46 CFR Part 132

Fire prevention, Hazardous materials transportation, Marine safety, Offshore supply vessels, Oil and gas exploration, Vessels.

46 CFR Part 134

Hazardous materials transportation, Marine safety, Offshore supply vessels, Oil and gas exploration, Provisions for liftboats, Vessels.

46 CFR Part 170

Hazardous materials transportation, Marine safety, Offshore supply vessels, Oil and gas exploration, Stability, Vessels.

46 CFR Part 174

Hazardous materials transportation, Marine safety, Offshore supply vessels, Oil and gas exploration, Stability, Vessels.

46 CFR Part 175

Administrative practice and procedures, Authority delegation, Hazardous materials transportation, Marine safety, Offshore supply vessels, Oil and gas exploration, Passenger vessels, Reporting and recordkeeping requirements.

In consideration of the foregoing, the Coast Guard amends chapter I of title 46 of the Code of Federal Regulations as follows:

PART 90—GENERAL PROVISIONS

1. The authority citation for part 90 continues to read as follows:

Authority: 46 U.S.C. 3306, 3703; 49 U.S.C. App. 1804; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; 49 CFR 1.46.

2. Section 90.05-20 is revised to read as follows:

§ 90.05-20 Applicability to offshore vessels

(a) Offshore supply vessels of 100 or more but of less than 500 gross tons, contracted for before March 15, 1996, are subject to inspection under this subchapter. Offshore supply vessels contracted for on or after March 15, 1996, are subject to inspection under subchapter L of this chapter.

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

3. Sections 90.10-40 (b) and (c) are revised to read as follows:

§ 90.10-40 Offshore supply vessels.

* * * * *

(b) An existing offshore supply vessel is one contracted for before March 15, 1996.

(c) A new offshore supply vessel is one contracted for on or after March 15, 1996.

§ 90.30-10 [Removed]

4. Section 90.30-10 is removed.

PART 98—[AMENDED]

§§ 98.31-5, 98.31-10 and 98.31-15 (Subpart 98.31) [Removed]

5. Subpart 98.31 consisting of §§ 98.31-5, 98.31-10, and 98.31-15, is removed.

6. Subchapter L consisting of Parts 125 through 136, is added to read as follows:

SUBCHAPTER L—OFFSHORE SUPPLY VESSELS

PART 125—GENERAL

- Sec.
- 125.100 Applicability.
- 125.110 Carriage of flammable or combustible liquid cargoes in bulk.
- 125.120 Carriage of noxious liquid substances in bulk.
- 125.130 Carriage of packaged hazardous materials.
- 125.140 Loadlines.
- 125.150 Lifesaving systems.
- 125.160 Definitions.
- 125.170 Equivalents.
- 125.180 Incorporation by reference.
- 125.190 Right of appeal.

Authority: 46 U.S.C. 2103, 3306, 3307; 49 U.S.C. App. 1804; 49 CFR 1.46.

§ 125.100 Applicability.

(a) Except as provided by paragraph (c) of this section, this subchapter applies to each offshore supply vessel

(OSV) of United States flag contracted for on or after March 15, 1996.

(b) Each OSV contracted for before March 15, 1996, must be constructed and inspected to comply with—

(1) The regulations in effect until March 15, 1996 (46 CFR subchapter I or subchapter T), as appropriate, as they existed at the time of construction; or

(2) The regulations in this subchapter.

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

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

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

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

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

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

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

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

(c) An OSV may carry the following in fixed independent tanks on deck:

Grade-B and lower-grade flammable and combustible liquids listed by § 30.25-1 of this chapter, in quantities not to exceed 20 percent of the vessel's deadweight.

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

§ 125.120 Carriage of noxious liquid substances in bulk.

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

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

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

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

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

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

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

(e) An OSV that discharges NLS residue to the sea must meet—

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

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

§ 125.130 Carriage of packaged hazardous materials.

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

§ 125.140 Loadlines.

Each OSV subject to assignment, certification, and marking of loadlines under subchapter E of this chapter must comply with subchapter E as well as with this subchapter.

§ 125.150 Lifesaving systems.

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

§ 125.160 Definitions.

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

Accommodation includes at least the following:

(1) A space used as a messroom.

(2) A lounge.

(3) A sitting area.

(4) A recreation room.

(5) Quarters.

(6) A toilet space.

(7) A shower room.

Approved means approved by the Commandant, unless otherwise defined.

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

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

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

(1) Any ocean.

(2) The Gulf of Mexico.

(3) The Caribbean Sea.

(4) The Gulf of Alaska.

(5) The Bering Sea.

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

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

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

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

Crane includes at least masts, stays, booms, winches, and standing and running gear that form a part of the fixed shipboard equipment used in the lifting and moving of other equipment and supplies of the vessel.

Damp or wet space includes at least:

(1) A space exposed to the weather.

(2) A machinery space.

(3) A cargo space.

(4) A space within a galley, within a laundry, or within a public washroom or toilet room that has a bath or shower, if the space is normally exposed to splashing, water wash down, or other moisture.

(5) A space directly inside an access door to a weather deck unless the access door is protected against rain or spray by an overhanging deck or by other means.

(6) Other spaces with similar moisture levels.

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

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

(2) The displacement of the vessel on even trim at the deepest load waterline.

Flammable liquid means the same as in § 30.10.22 of this chapter.

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

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

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

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

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

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

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

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

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

(1) Any ocean.

(2) The Gulf of Mexico.

(3) The Caribbean Sea.

(4) The Gulf of Alaska.

(5) The Bering Sea.

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

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

Offshore supply vessel or *OSV* means a vessel that—

(1) Is propelled by machinery other than steam;

(2) Does not meet the definition of a passenger-carrying vessel in 46 U.S.C. 2101(22) or 46 U.S.C. 2101(35);

(3) Is more than 15 but less than 500 gross tons; and

(4) Regularly carries goods, supplies, individuals in addition to the crew, or equipment in support of exploration, exploitation, or production of offshore mineral or energy resources.

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

Quarters means any space where sleeping accommodations are provided.

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

§ 125.170 Equivalents.

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

§ 125.180 Incorporation by reference.

(a) Certain materials are incorporated by reference into this subchapter with the approval of the Director of the Federal Register in compliance with 5 U.S.C. 552(a). To enforce any edition other than the one listed in paragraph (b) of this section, the Coast Guard must publish notice of change in the Federal Register and make the material available to the public. All approved materials are on file at the Office of the Federal Register, Suite 700, 800 North Capitol Street NW., Washington, DC 20408, and at the U.S. Coast Guard, Merchant Vessel Inspection and Documentation Division, 2100 Second Street SW., Washington, DC 20593-0001, and are available from the sources indicated in paragraph (b) of this section.

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

American Bureau of Shipping (ABS), Two World-Trade Center, 106th Floor, New York, NY 10048

Rules for Building and Classing Steel Vessels Under 61 Meters (200 Ft) in Length (1983)—§ 127.210

Rules for Building and Classing Steel Vessels (1995)—§ 127.210, § 129.360

Rules for Building and Classing Aluminum Vessels (1975)—§ 127.210

Rules for Building and Classing Mobile Offshore Drilling Units (1994)—§ 133.140, § 133.150

American National Standards Institute (ANSI), 11 West 42nd St., New York, NY 10036

B 31.1-1986—Code for Pressure Piping, Power Piping—§ 128.240

Z 26.1-1977 (including 1980 Supplement)—Safety Code for Safety Glazing Materials for Glazing Motor Vehicles Operating on Land Highways—§ 127.430

American Society of Mechanical Engineers (ASME), 345 East 47th St., New York, NY 10027

Boiler and Pressure Vessel Code Section I, Power Boilers, July 1989 with 1989 addenda—§ 128.240

American Society for Testing and Materials (ASTM), 1916 Race St., Philadelphia, PA 19103

D93-80—Standard Test Methods for Flash Point by Pensky-Martens Closed Tester—§ 128.310

American Yacht and Boat Council, Inc. (AYBC), 3069 Solomon's Island Rd., Edgewater, MD 21037-1416

A-3-1993—Galley Stoves—§ 129.550

A-7-1970—Recommended Practices and Standards Covering Boat Heating Systems—§ 129.550

E-1-1972—Bonding of Direct-Current Systems—§ 129.120

E-8-1994—Alternating-Current (AC)

Electrical Systems on Boats—§ 129.120

E-9-1990—Direct-Current (DC) Electrical Systems on Boats—§ 129.120

Institute of Electrical and Electronics Engineers (IEEE), 345 E. 47th St., New York, NY 10017

No. 45-1977—Recommended Practice for Electric Installations on Shipboard—§ 129.340

International Maritime Organization (IMO), Publications Section, 4 Albert Embankment, London SE1 7SR, England
Resolution A.658(16), "Use and Fitting of Retro-Reflective Materials on Lifesaving Appliances", dated November 20, 1989—§ 131.855, § 131.875

Resolution A.760(18), "Symbols Related to Life-Saving Appliances and Arrangements", dated November 17, 1993—§ 131.875

International Convention for the Safety of Life at Sea (SOLAS), Consolidated Edition, 1992—§ 126.170

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

NFPA 70—National Electrical Code, 1993 Edition—§ 129.320, § 129.340, § 129.370

NFPA 306—Control of Gas Hazards on Vessels, 1993 Edition—§ 126.160

NFPA 1963—Fire Hose Connections, 1993 Edition—§ 132.130

NFPA 10—Standard for Portable Fire Extinguishers, 1994 Edition—§ 132.350

NFPA 302—Fire Protection Standard for Pleasure and Commercial Motor Craft, 1994 Edition—§ 129.550

Underwriters Laboratories, Inc. (UL), 333 Pfingsten Rd., Northbrook, IL 60062

- UL 19-1992—Lined Fire Hose and Hose Assemblies—§ 132.130
- UL 486A-1992—Wire Connectors and Soldering Lugs for Use with Copper Conductors—§ 129.340
- UL 489-1995—Molded-Case Circuit Breakers and Circuit-Breaker Enclosures—§ 129.380
- UL 57-1976—Electric Lighting Fixtures—§ 129.410
- UL 595-1991—Marine-Type Electric Lighting Fixtures—§ 129.410
- UL 1570-1995—Fluorescent Lighting Fixtures—§ 129.410
- UL 1571-1995—Incandescent Lighting Fixtures—§ 129.410
- UL 1572-1995—High Intensity Discharge Lighting Fixtures—§ 129.410
- UL 1573-1995—Stage and Studio Lighting Units—§ 129.410
- UL 1574-1995—Track Lighting Systems—§ 129.410

§ 125.190 Right of appeal.

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

PART 126—INSPECTION AND CERTIFICATION

Subpart A—General

- Sec.
- 126.100 Inspector not limited.
- 126.110 Inspection after accident.
- 126.120 Permit to proceed to another port for repairs.
- 126.130 Cranes.
- 126.140 Drydocking.
- 126.150 Repairs and alterations.
- 126.160 Tests and inspections during repairs or alterations, or during riveting, (welding), burning, or other hot work.
- 126.170 Carriage of offshore workers.
- 126.180 Carriage of passengers.

Subpart B—Certificate of Inspection

- 126.210 When required.
- 126.220 Description.
- 126.230 How to obtain or renew.
- 126.240 Posting.
- 126.250 Period of validity.
- 126.260 Temporary Certificate.
- 126.270 Amendment.

Subpart C—Initial Inspection

- 126.310 Prerequisite to Certificate of Inspection.
- 126.320 When made.
- 126.330 Plans.
- 126.340 Scope.
- 126.350 Specific tests and inspections.

Subpart D—Inspection for Certification

- 126.410 Prerequisite to reissuance of Certificate of Inspection.
- 126.420 When made.
- 126.430 Scope.
- 126.440 Lifesaving equipment.
- 126.450 Fire-extinguishing equipment.
- 126.460 Tanks for dry bulk cargo.
- 126.470 Marine-engineering systems.

Subpart E—Reinspection

- 126.510 When made.
 - 126.520 Scope.
 - 126.530 Alternative midperiod examination.
- Authority: 46 U.S.C. 3306; 33 U.S.C. 1321(j); E.O. 11735, 38 FR 21243, 3 CFR 1971-1975 Comp., p. 793; 49 CFR 1.46.

Subpart A—General

§ 126.100 Inspector not limited.

The marine inspector may at any time require that an OSV and its equipment meet any test or inspection deemed necessary to determine whether the vessel is suitable for its intended service.

§ 126.110 Inspection after accident.

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

- (1) Each time an accident occurs, or a defect is discovered that affects—
 - (i) The safety of the vessel; or
 - (ii) The effectiveness or completeness of its lifesaving, fire-fighting, or other equipment; or
- (2) Whenever any important repairs or renewals are made.

(b) The inspection is to determine—

- (1) What repairs or renewals must be made;
- (2) That the material and workmanship used to accomplish the repairs or renewals are satisfactory; and
- (3) That the OSV complies with this subchapter.

§ 126.120 Permit to proceed to another port for repairs.

(a) When an OSV fails to comply with its Certificate of Inspection or with this subchapter, the OCMI may let the vessel proceed to another port for repairs if in the judgment of the OCMI the vessel can complete the trip safely even though the Certificate has expired or is about to expire.

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

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

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

§ 126.130 Cranes.

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

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

§ 126.140 Drydocking.

(a) Unless on one or more extensions authorized by the Commandant (G-MCO), each OSV must be placed in drydock or hauled out for examination twice each five years with no interval between examinations exceeding three years.

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

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

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

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

§ 126.150 Repairs and alterations.

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

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

(c) Except as provided by paragraphs (b) and (e) of this section, drawings of repairs or alterations must be approved, before work starts, by the OCMI or, when necessary, by the Commanding Officer, Marine Safety Center.

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

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

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

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

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

(c) Each examination must be conducted as follows:

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

(2) At any port or site outside of the United States or its territories and possessions, where the services of a certified marine chemist or other person authorized by the OCMI are not reasonably available, the master, owner, or operator of the vessel shall make the examination and a proper entry in the OSV's logbook.

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

§ 126.170 Carriage of offshore workers.

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

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

§ 126.180 Carriage of passengers.

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

Subpart B—Certificate of Inspection

§ 126.210 When required.

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

§ 126.220 Description.

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

§ 126.230 How to obtain or renew.

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

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

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

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

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

§ 126.240 Posting.

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

§ 126.250 Period of validity.

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

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

§ 126.260 Temporary Certificate.

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

§ 126.270 Amendment.

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

(b) A request for an amended Certificate of Inspection must be made to the cognizant OCMI by the owner or operator of the OSV at any time there is a change in the character of an OSV or in its route, equipment, ownership, operation, or similar factors specified in its current Certificate of Inspection.

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

Subpart C—Initial Inspection**§ 126.310 Prerequisite to Certificate of Inspection.**

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

§ 126.320 When made.

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

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

§ 126.330 Plans.

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

§ 126.340 Scope.

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

§ 126.350 Specific tests and inspections.

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

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

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

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

(3) Installation tests and inspections of lifeboats, rescue boats, davits, and winches under subpart 94.35 of this chapter.

Subpart D—Inspection for Certification**§ 126.410 Prerequisite to reissuance of Certificate of Inspection.**

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

§ 126.420 When made.

No inspection for certification occurs until after receipt of the written application of the owner, builder, master, or operator of the OSV by the OCMI in whose zone the vessel is located. The application must be on the "Application for Inspection of U.S. Vessel", Form CG-3752.

§ 126.430 Scope.

The inspection for certification is made by a marine inspector to determine whether the OSV is in satisfactory condition and fit for its intended service. The owner or builder shall make the vessel and its equipment available for inspection, including the following items:

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

§ 126.440 Lifesaving equipment.

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

§ 126.450 Fire-extinguishing equipment.

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

§ 126.460 Tanks for dry bulk cargo.

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

§ 126.470 Marine-engineering systems.

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

Subpart E—Reinspection**§ 126.510 When made.**

(a) Except as provided by § 126.530 of this subpart, at least one reinspection must be made of each OSV holding a Certificate of Inspection. The owner, master, or operator shall arrange for the reinspection between the tenth and fourteenth months of the period for which the Certificate of Inspection is valid.

(b) The owner, master, or operator shall make the vessel available for the reinspection at a time and place acceptable to the OCMI, but no written application is necessary.

§ 126.520 Scope.

In general, the reinspection goes into less detail than that described by § 126.430 of this part for the inspection for certification, unless the OCMI or marine inspector determines that a major change has occurred since the last inspection.

§ 126.530 Alternative midperiod examination.

(a) The owner, master, or operator of an OSV of less than 400 gross tons, except a liftboat, may ask the cognizant OCMI to arrange an alternative midperiod examination. The request must go to the OCMI assigned responsibility for inspections in the country in which the vessel is operating and will be examined. To qualify for the alternative midperiod examination, the vessel must meet the following requirements:

(1) The request must be in writing and be received by the OCMI before the end of the twelfth month of the period for which the Certificate of Inspection is valid.

(2) The vessel is likely to be continuously employed outside of the United States during the tenth through the fourteenth month of validity of its Certificate of Inspection.

(b) In determining whether to authorize the alternative midperiod examination, the OCMI considers the following:

(1) Information contained in previous examination reports on inspection and drydock, including the recommendation, if any, of the OCMI for

participation in the alternative midperiod examination.

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

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

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

(i) The prompt correction of deficiencies.

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

(iii) The reliability of representations that the vessel would be, and was, employed outside of the United States for the tenth through the fourteenth month of validity of its Certificate of Inspection.

(c) The OCMI provides the applicant with written authorization, if any, to proceed with the alternative midperiod examination, including, when appropriate, special instructions.

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

(1) The alternative midperiod examination must occur between the tenth and fourteenth months of validity of the Certificate of Inspection.

(2) The reinspection must be of the scope detailed by § 126.520 of this subpart and must be made by the master, owner, or operator of the OSV, or by a designated representative of the owner or operator.

(3) Upon completion of the alternative midperiod examination, the person or persons making the examination shall prepare a comprehensive report describing the conditions found. This report must contain sufficient detail to let the OCMI determine whether the vessel is fit for the service and route specified on the Certificate of Inspection. This report must include subsidiary reports and receipts documenting the servicing of lifesaving and fire-protection equipment, and any photographs or sketches necessary to clarify unusual circumstances. Each person preparing this report shall sign it and certify that the information in it is complete and accurate.

(4) Unless the master of the vessel participated in the alternative midperiod examination and the preparation of the comprehensive report, the master shall review the report for completeness and accuracy.

The master shall sign the report to indicate review and shall forward it to the owner or operator of the vessel, who asked for the examination.

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

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

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

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

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

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

I certify that to the best of my knowledge and belief the above is complete and accurate.

(f) Deficiencies and hazards discovered during the alternative midperiod examination made pursuant to this section must be corrected if practicable, before the submittal of the report to the OCMI in compliance with paragraph (d)(5) of this section. Deficiencies and hazards not corrected by the time the report is submitted must be noted in the report as "outstanding." Upon receipt of a report indicating any outstanding deficiency or hazard, the OCMI will inform the owner or operator of the OSV in writing of the time allowed to correct each deficiency and hazard and of the method for establishing that each has been corrected. When any deficiency or hazard remains uncorrected or uneliminated after this time allowed, the OCMI will initiate appropriate enforcement.

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

(1) Whether the OCMI accepts the alternative midperiod examination instead of the reinspection required by § 126.510 of this subpart.

(2) Whether the OSV is in satisfactory condition.

(3) Whether the vessel continues to be reasonably fit for its intended service and route.

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

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

PART 127—CONSTRUCTION AND ARRANGEMENTS

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Authority: 46 U.S.C. 3306; 49 CFR 1.46.

Subpart A—Plan Approval

§ 127.100 General.

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

§ 127.110 Plans and specifications required for new construction.

Each applicant for approval of plans and for an original Certificate of Inspection must submit three copies of the following:

- (a) *General.*
 - (1) Specifications.
 - (2) General Arrangement Plans.
 - (3) Safety Plan (Fire-Control Plan).
 - (4) Lifesaving-Equipment Plan.
- (b) *Hull structure.*
 - (1) Midship Section.
 - (2) Booklet of Scantling Plans.
 - (3) Arrangement of Ports, Doors, and Air ports.
 - (4) Hatch Coamings and Covers in Weather Decks and Watertight Decks.
 - (5) Scuppers and Drains Penetrating Shell-Plating.
 - (6) Booklet of Standard Details.
- (c) *Subdivision and stability.* (For plans required for subdivision and stability, see subchapter S of this chapter.)
 - (d) *Marine engineering.*
 - (1) Piping diagrams of each Class I systems.
 - (2) Piping diagrams of the following Class II systems (the builder's certification of Class II non-vital piping systems must accompany the piping diagrams in compliance with § 128.220(c) of this subchapter):
 - (i) Systems for fill, transfer, and service of fuel oil.
 - (ii) Fire-main and fixed gaseous fire-extinguishing systems.
 - (iii) Bilge systems.
 - (iv) Ballast systems.
 - (v) Fluid-driven power and control systems.
 - (vi) Through-hull penetrations and shell connections.
 - (vii) Sanitary systems.
 - (viii) Vents, sounding tubes, and overflows.
 - (ix) Compressed-air systems.
 - (3) Steering and steering-control systems.
 - (4) Propulsion and propulsion-control systems.
 - (5) Piping diagrams of each system containing any flammable, combustible, or hazardous liquid including—
 - (i) Cargo-oil systems;
 - (ii) Systems for combustible drilling-fluid (such as oil-based liquid mud); and
 - (iii) Cargo-transfer systems for fixed independent or portable tanks.
 - (e) *Electrical engineering.*
 - (1) For each OSV of less than 100 gross tons, the following plans must be submitted:
 - (i) Arrangement of electrical equipment (plan and profile) with equipment identified as necessary to show compliance with this subchapter.
 - (ii) Electrical one-line diagram that includes wire types and sizes, overcurrent-device rating and setting, and type of electrical-equipment enclosure (drip-proof, watertight, or the like).
 - (iii) Switchboard plans required by paragraphs (e) and (f) of § 110.25-1 of this chapter.
 - (2) For each vessel of 100 or more gross tons, the plans required by § 110.25 of this chapter must be submitted.
 - (f) *Automation.* For each OSV of 100 or more gross tons, where automated systems are provided to replace specific personnel in the control and observation of the propulsion systems and machinery spaces, or to reduce the level of crew associated with the engine department, the following plans must be submitted:
 - (1) Plans necessary to demonstrate compliance with subpart D of part 130 of this subchapter.
 - (2) Automation-test procedure.
 - (3) Operations manual.

§ 127.120 Procedure for submittal of plans.

If an OSV is to be constructed, altered, or repaired in the United States, the plans, information, and calculations required by this part must be submitted to—

- (a) The OCMI in the zone where the vessel is to be constructed, altered, or repaired; or
- (b) The Commanding Officer, Marine Safety Center, 400 Seventh Street SW., Washington, DC 20590-0001.

Subpart B—Particular Construction and Arrangements**§ 127.210 Structural standards.**

- (a) Except as provided by paragraphs (b) and (c) of this section, compliance with the construction and structural rules established by the ABS and incorporated by reference in § 125.180 is acceptable for the design and construction of an OSV.
- (b) The standard of any classification society, or any other established standard, acceptable to the Commandant (G-MMS) may be used.
- (c) If no established standard for design is used, detailed design calculations must be submitted with the plans required by § 127.110 of this part.
- (d) The plans required by § 127.110 of this part should specify their standard for design.

§ 127.220 General fire protection.

- (a) Each OSV must be designed and constructed to minimize fire hazards, as far as reasonable and practicable.
- (b) Exhausts of internal-combustion engines, galley uptakes, and similar

sources of ignition must be kept clear of and insulated from woodwork and other combustible matter.

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

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

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

- (1) Is located above the main deck;
- (2) Is located in the open; and
- (3) Has no boundaries contiguous with other decks or bulkheads.

§ 127.230 Subdivision and stability.

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

§ 127.240 Means of escape.

(a) There must be at least two means of escape, exclusive of windows and portholes, from each of the following spaces:

- (1) Each space accessible to offshore workers.
- (2) Crew accommodations and each space where the crew may normally be employed.

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

- (1) Be independent of watertight doors in bulkheads required by part 174 of this chapter to be watertight; and
- (2) Lead as directly to the open deck as practicable.

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

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

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

- (1) Primary means of escape is a stairway or passageway;
- (2) Installation of another stairway or passageway is impracticable;
- (3) Scuttle is located where stowed deck cargo could not interfere;

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

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

(f) Each vertical ladder must—

(1) Have rungs that are—

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

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

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

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

(3) Be made of incombustible materials; and

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

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

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

(2) Always operable from the inside.

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

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

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

(k) Vertical access must be provided between the various weather decks by means of permanently inclined ladders. The angle of inclination of these ladders with the horizontal must not exceed 70 degrees.

§ 127.250 Ventilation for enclosed spaces.

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

(b) Means must be provided for stopping each fan in a ventilation

system serving machinery and cargo spaces and for closing, in case of fire, each doorway, ventilator, and annular space around funnels and other openings into such spaces.

§ 127.260 Ventilation for accommodations.

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

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

§ 127.270 Location of accommodations and pilothouse.

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

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

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

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

(2) Each vertical ladder permitted by § 127.240 of this subpart is above the final-equilibrium waterline when the vessel is subject to the damage prescribed by § 174.205 of this chapter; and

(3) The overhead of at least one vertical ladder is at least 12 inches above the final-equilibrium waterline when the vessel is subject to the damage prescribed by § 174.205 of this chapter.

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

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

(f) No access openings, sounding tubes, or vents from fuel-oil or cargo-oil tanks may open into accommodations for crew members or offshore workers, except that access openings and sounding tubes may open into passageways.

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

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

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

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

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

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

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

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

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

(1) Each offshore worker aboard must be provided with adequate fixed seating. The spacing of fixed seating must be sufficient to allow ready escape in case of fire or other emergency. The following are minimal requirements:

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

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

(iii) Where the seating is in rows, the distance from seat front to seat front must not be less than 30 inches.

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

(i) Berth no more than six workers;

(ii) Have clear headroom of at least 6 feet 3 inches; and

(iii) Contain at least 20 square feet of deck and at least 140 cubic feet of space for each worker accommodated. The presence in a stateroom of equipment for use by the occupants does not diminish the area or volume of the room.

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

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

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

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

Subpart C—Rails and Guards

§ 127.310 Where rails required.

(a) Each OSV must have permanently installed efficient guard rails or bulwarks on decks and bridges. Each rail or bulwark must stand at least 39-1/2 inches from the deck except that, where this height would interfere with the normal operation of the vessel, the OCMI may approve a lesser height.

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

(c) If satisfied that the installation of any rail of the required height is impracticable, the OCMI may accept a grab rail or a rail of a lesser height in its place.

§ 127.320 Storm rails.

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

§ 127.330 Guards in dangerous places.

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

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

§ 127.410 Safety-glazing materials.

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

§ 127.420 Strength.

Each window or porthole, and its means of attachment to the hull or the deckhouse, must be capable of withstanding the maximum expected

load from wave and wind conditions, due to its location on the OSV and the authorized route of the vessel.

§ 127.430 Visibility from pilothouse.

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

(b) Glass or other glazing material used in windows at the pilothouse must have a light transmission of at least 70 percent according to Test 2 of ANSI Z26.1, "Code for Safety Glazing Materials for Glazing Motor Vehicles Operating on Land Highways," and must comply with Test 15 of ANSI Z26.1 for Class I Optical Deviation.

§ 127.440 Operability of window coverings.

Any covering or protection placed over a window or porthole must be able to be readily removed or opened. It must be possible to open or remove the covering or protection without anyone's having to go onto a weather deck.

PART 128—MARINE ENGINEERING: EQUIPMENT AND SYSTEMS

Subpart A—General

Sec.

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128.120 Plan approval.

128.130 Vital systems.

Subpart B—Materials and Pressure Design

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

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

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

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128.420 Keel-cooler installations.

128.430 Grid-cooler installations.

128.440 Bilge systems.

128.450 Liquid-mud systems.

Authority: 46 U.S.C. 3306; 49 CFR 1.46.

Subpart A—General

§ 128.110 Equipment and systems.

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

(b) This part contains requirements for equipment and systems commonly

found on an OSV. If additional or unique systems, such as for low-temperature cargoes, are to be installed, they too must comply with subchapter F of this chapter.

§ 128.120 Plan approval.

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

§ 128.130 Vital systems.

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

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

(2) Fire-main systems.

(3) Fixed gaseous fire-extinguishing systems.

(4) Bilge systems.

(5) Ballast systems.

(6) Steering systems and steering-control systems.

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

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

(9) Ship's service and emergency electrical-generation systems and their auxiliaries.

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

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

Subpart B—Materials and Pressure Design

§ 128.210 Class II vital systems—materials.

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

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

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

(b) Piping for salt-water service must be of a corrosion-resistant material, be

hot-dip galvanized, or be at least of extra-heavy schedule in wall thickness.

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

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

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

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

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

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

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

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

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

(2) The service of the component is limited to ½ the manufacturer's recommended maximum allowable working pressure (MAWP) or ¼ the component's burst pressure. Burst-pressure testing is described in ANSI B 31.1, Paragraph 104.7.A, and must be conducted to comply with Paragraph A-22, Section, I, ASME Boiler and Pressure Vessel Code. Written certification of results of burst-pressure testing must be submitted with the plans required by § 127.110(d) of this subchapter.

Subpart C—Main and Auxiliary Machinery

§ 128.310 Fuel.

(a) Except as provided by paragraph (b) of this section, each internal-combustion engine installed on an OSV, whether for main propulsion or for auxiliaries, must be driven by a fuel having a flashpoint of not lower than 110 degrees F. as determined by ASTM D93.

(b) The use of a fuel with a flashpoint of lower than 110 degrees F. must be specifically approved by the Commandant (G-MTH), except in an engine for a gasoline-powered rescue boat.

§ 128.320 Exhaust systems.

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

Subpart D—Design Requirements for Specific Systems

§ 128.310 Ship's service refrigeration systems.

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

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

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

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

§ 128.420 Keel-cooler installations.

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

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

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

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

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

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

(3) Two of the clamps are used on each end of the hose, except that one clamp may be used on an end expanded

or beaded to provide a positive stop against hose slippage.

§ 128.430 Grid-cooler installations.

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

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

§ 128.440 Bilge systems.

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

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

§ 128.450 Liquid-mud systems.

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

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

PART 129—ELECTRICAL INSTALLATIONS

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Authority: 46 U.S.C. 3306; 49 CFR 1.46.

Subpart A—General Provisions

§ 129.100 General.

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

§ 129.110 Applicability.

(a) Except as specifically provided in this part, electrical installations on OSVs of 100 or more gross tons must comply with subchapter J of this chapter.

(b) Electrical installations on OSVs of less than 100 gross tons must meet the—

(1) Requirements of paragraph (a) of this section for vessels of 100 or more gross tons; or

(2) Applicable requirements of this part.

§ 129.120 Alternative standards.

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

(i) E-1, Bonding of Direct Current Systems.

(ii) E-8, AC Electrical System on Boats.

(iii) E-9, DC Electrical Systems on Boats.

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

Subpart B—General Requirements

§ 129.200 Design, installation, and maintenance.

Electrical equipment on an OSV must be designed, installed, and maintained to—

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

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

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

(d) Prevent electrical ignition of flammable vapors.

§ 129.210 Protection from wet and corrosive environments.

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

(1) A machinery space.

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

(3) Every other space with similar wet conditions.

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

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

§ 129.220 Basic safety.

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

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

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

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

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

Subpart C—Power Sources and Distribution Systems

§ 129.310 Power sources.

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

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

(ii) Interior lights.

(iii) Communication systems.

(iv) Navigational equipment and lights.

(v) Fire-protection equipment.

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

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

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

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

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

§ 129.320 Generators and motors.

(a) Each generator and motor must be—

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

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

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

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

(2) A generator or motor designed for an ambient temperature of 40 degrees C. may be used in a location where the ambient temperature is 50 degrees C., if the generator or motor is derated to 80 percent of the full-load rating and if the rating or setting of the overcurrent

devices of the generator or motor is reduced accordingly.

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

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

(1) Name of manufacturer, type of generator, and designation of frame;
(2) Output in kilowatts, or horsepower rating;

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

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

(5) Number of phases, if applicable;

(6) Type of windings, if DC;

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

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

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

§ 129.323 Multiple generators.

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

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

(b) The circuit breaker of a generator to be operated in parallel with another generator must comply with §§ 111.05–13, 111.12–11(f), 111.30–19(a), and 111.30–25(d) of this chapter.

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

§ 129.326 Dual-voltage generators.

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

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

(b) Ground detection must be provided that—

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

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

§ 129.330 Distribution panels and switchboards.

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

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

(c) Each switchboard must have nonconductive handrails.

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

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

(f) Working space must be provided around each main distribution panel and switchboard of at least 24 inches in front of the switchboard and, unless it is inaccessible from the rear, of at least 18 inches from the nearest bulkhead, stiffener, or frame behind the switchboard.

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

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

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

(j) Switchboards and distribution panels must be sized in accordance with § 111.30–19(a) of this chapter.

§ 129.340 Cable and wiring.

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

(b) Each cable and wire must—

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

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

(3) Be protected from the weather;

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

(5) Be installed without sharp bends;

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

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

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

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

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

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

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

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

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

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

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

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

(1) Pressure-type connector on each conductor;

(2) Solder lug on each conductor;

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

(4) Splice soldered, brazed, or welded to a flexible lead or conductor.

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

makes pressure contact with the conductor.

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

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

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

(l) No cable may be spliced in—

(1) A hazardous location; or

(2) Another location, except—

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

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

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

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

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

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

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

(p) Each metallic covering of armored cable must—

(1) Be electrically continuous; and

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

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

(ii) Common ground plate (on a nonmetallic vessel); and

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

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

§ 129.350 Batteries—general.

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

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

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

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

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

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

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

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

§ 129.353 Battery categories.

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

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

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

§ 129.356 Battery installations.

(a) *Large.* Each large battery-installation must be located in a locker, room, or enclosed box dedicated solely to the storage of batteries. Ventilation must be provided in accordance with § 111.15–10 of this chapter. Electrical equipment located within the battery enclosure must be approved by an independent laboratory for hazardous locations of Class I, Division 1, Group B, and must meet part 111, subpart 111.105, of this chapter.

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

§ 129.360 Semiconductor-rectifier systems.

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

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

(1) Have a current-limiting circuit;

(2) Have external overcurrent protection; and

(3) Comply with sections 4/5.84.2 and 4/5.84.4 of the ABS's "Rules for Building and Classing Steel Vessels."

§ 129.370 Equipment grounding.

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

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

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

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

§ 129.375 System grounding.

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

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

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

(1) Only one connection to the main switchboard; and

(2) The connection to itself readily accessible for checking.

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

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

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

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

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

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

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

(2) A battery system to start an engine.

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

(h) Each receptacle outlet and attachment plug, for a portable lamp,

tool, or similar apparatus operating at 100 or more volts, must have a grounding-pole and a grounding-conductor in the portable cord.

§ 129.380 Overcurrent protection.

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

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

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

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

(e) Each feeder circuit for steering gear must be protected by a circuit breaker that complies with §§ 111.93–11 (a) and (b) of this chapter.

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

(g) Each conductor must be protected in accordance with its current-carrying capacity. If the allowable current-carrying capacity does not correspond to a standard size of device, the next larger overcurrent device may be used, unless it exceeds 150 percent of the conductor's current-carrying capacity.

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

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

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

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

(l) A way for locking the means of disconnect open must be provided unless the means of disconnect for a

fused circuit is within sight of the equipment that the circuit supplies.

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

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

(1) Inverse delay;

(2) Instantaneous short-circuit protection; and

(3) Switching duty if the breaker is used as a switch.

(o) Each circuit breaker must indicate whether it is open or closed.

§ 129.390 Shore power.

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

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

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

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

(d) The circuit breaker, required by paragraph (c) of this section, must be interlocked with the OSV's power sources so that shore power and the vessel's power sources may not operate simultaneously.

§ 129.395 Radio installations.

A separate circuit, with overcurrent protection at the switchboard, must be provided for each radio installation.

Subpart D—Lighting Systems

§ 129.410 Lighting fixtures.

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

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

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

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

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

(3) Each tablelamp, desk lamp, floorlamp, or similar equipment must be

so secured in place that it cannot be displaced by the roll, pitch, or vibration of the vessel.

(d) Each lighting fixture in an electrical system operating at more than 50 volts must comply with UL 595, "Marine Type Electric Lighting Fixtures." A lighting fixture in an accommodation space, radio room, galley, or similar interior space may comply with UL 57, "Electric Lighting Fixtures," UL 1570, "Fluorescent Lighting Fixtures," UL 1571, "Incandescent Lighting Fixtures," UL 1572, "High Intensity Discharge Lighting Fixtures," UL 1573, "Stage and Studio Lighting Units," or UL 1574, "Track Lighting Systems," as long as the general marine requirements of UL 595 are satisfied.

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

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

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

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

§ 129.430 Navigational lighting.

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

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

§ 129.440 Emergency lighting.

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

(b) The emergency lighting required by paragraph (a) of this section must automatically actuate upon failure of the main lighting. Unless an OSV is equipped with a single source of power for emergency lighting, it must have individual battery-powered lighting that is—

(1) Automatically actuated upon loss of normal power;

(2) Not readily portable;

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

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

§ 129.450 Portable lighting.

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

Subpart E—Miscellaneous Electrical Systems

§ 129.510 Lifeboat winches.

Each lifeboat winch operated by electric power must comply with subparts 111.95 and 160.015 of this chapter.

§ 129.520 Hazardous areas.

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

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

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

§ 129.530 General alarm.

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

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

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

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

- (1) For each propulsion unit, in the pilothouse.
- (2) For each discharge pump for bilge slop or dirty oil, at the deck discharge.
- (3) For each powered ventilation system, outside the space ventilated.
- (4) For each fuel-oil pump, outside the space containing the pump.

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

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

§ 129.550 Power for cooking and heating.

(a) Equipment for cooking and heating must be suitable for marine use.

Equipment designed and installed to comply with ABYC Standards A–3 and A–7 or Chapter 6 of NFPA 302 meets this requirement.

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

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

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

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

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

§ 129.560 Engine-order telegraphs on OSVs of 100 or more gross tons.

No OSV of 100 or more gross tons need carry an engine-order telegraph.

PART 130—VESSEL CONTROL, AND VARIOUS EQUIPMENT AND SYSTEMS

Subpart A—Vessel Control

Sec.

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

130.120 Propulsion control.

130.130 Steering on OSVs of less than 100 gross tons.

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Subpart B—Miscellaneous Equipment and Systems

130.210 Radiotelegraph and radiotelephone.

130.220 Design of equipment for cooking and heating.

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130.310 Radar.

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130.460 Placement of machinery alarms.

130.470 Fire alarms.

130.480 Test procedure and operations manual.

Authority: 46 U.S.C. 3306, 8105; 49 CFR 1.46.

Subpart A—Vessel Control

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

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

§ 130.120 Propulsion control.

(a) Each OSV must have—

- (1) A propulsion-control system operable from the pilothouse; and
- (2) A means at each propulsion engine of readily disabling the propulsion-control system to permit local operation.

(b) Each propulsion-control system operable from the pilothouse must enable—

- (1) Control of the speed of each propulsion engine;
- (2) Control of the direction of propeller-shaft rotation;
- (3) Control of propeller pitch, if a controllable-pitch propeller is fitted; and
- (4) Shutdown of each propulsion engine.

(c) The propulsion-control system operable from the pilothouse may constitute the remote stopping-system required by § 129.540 of this subchapter.

(d) Each propulsion-control system, including one operable from the pilothouse, must be designed so that no one failure of the system allows the propulsion engine to over speed or the pitch of the propeller to increase.

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

(a) Each OSV of less than 100 gross tons must have a steering system that complies with—

- (1) Section 130.140 of this subpart; or
- (2) This section.

(b) Except as provided by paragraph (i) of this section, each OSV must have a main and an independent auxiliary means of steering.

(c) The main means of steering (main steering gear) must be—

- (1) Of adequate strength for, and capable of, steering the OSV at each service speed;
- (2) Designed to operate at maximum astern speed without being damaged; and
- (3) Capable of moving the rudder from 35 degrees on one side to 30 degrees on the other side in no more than 28 seconds with the vessel moving ahead at maximum service speed.

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

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

(1) Of adequate strength for steering the OSV at navigable speed;

(2) Capable of steering the vessel at navigable speed; and

(3) Controlled from a place that—

(i) Can communicate with the pilothouse; or

(ii) Enables the master to safely maneuver the vessel.

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

(g) Each OSV must have instantaneous protection against short circuit for electrical-power circuits and control circuits, the protection sized and located to comply with §§ 111.93–11 (d) and (e) of this chapter.

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

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

(1) The main steering gear, including power systems, is installed in duplicate; or

(2) Multiple-screw propulsion—with independent control of propulsion from the pilothouse for each screw and with a means to restrain and center the rudder—is installed, and if that control is capable of steering the OSV.

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

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

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

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

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

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

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

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

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

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

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

(2) A hydraulic system with a MAWP of not more than 1800 psi, dedicated to steering.

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

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

(5) Rudder stops.

(6) Either—

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

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

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

(i) Control from the helm;

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

(iii) Adequate visibility when going astern.

(8) Multiple-screw propulsion with independent control of propulsion from the pilothouse, complying with § 130.120 of this part and being capable of steering the vessel.

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

(10) The steering alarms and indicators required by § 111.93–13 of this chapter, located in the pilothouse.

(11) Instantaneous protection against short circuit for electrical power, and control circuits sized and located as required by §§ 111.93–11 (d) and (e) of this chapter.

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

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

(14) Means to isolate any auxiliary means of steering so as not to impair the reliability and availability of the control

required by paragraph (b)(7) of this section.

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

(c) For compliance with paragraph (b) of this section, one set of piping among pumps, helm, and cylinders is acceptable.

Subpart B—Miscellaneous Equipment and Systems

§ 130.210 Radiotelegraph and radiotelephone.

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

§ 130.220 Design of equipment for cooking and heating.

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

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

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

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

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

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

§ 130.230 Protection from refrigerants.

(a) For each refrigeration system that exceeds 20 cubic feet of storage capacity if using ammonia or other hazardous gas, or exceeds 1000 cubic feet of storage capacity if using a fluorocarbon, as a refrigerant, there must be a self-contained breathing apparatus available.

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

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

(d) Each self-contained breathing apparatus must be of a type approved under subpart 160.011 of this chapter.

(e) The self-contained breathing apparatus in the fireman's outfit complies with this section.

§ 130.240 Anchors and chains.

(a) Each OSV must be fitted with anchors and chains meeting the

applicable standards set by the ABS for Classed Vessels, including equipment, except as permitted by paragraphs (b) and (c) of this section.

(b) As well as the standards incorporated by paragraph (a) of this section, the following apply:

(1) Except as provided by paragraph (c) of this section, standards of the ABS relating to anchor equipment are mandatory, not precatory.

(2) Each vessel of under 200 feet (61 meters) in length and with an equipment number from the ABS of less than 150 may be equipped with either—

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

(ii) Two anchors of one-half the tabular weight with the total length of anchor chain listed in the applicable standard, if both anchors are ready for use at any time and if the windlass is capable of heaving in either anchor.

(c) Standards of other classification societies may be used, instead of those established by the ABS, upon approval of the Commandant.

Subpart C—Navigational Equipment

§ 130.310 Radar.

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

§ 130.320 Electronic position-fixing device.

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

§ 130.330 Charts and nautical publications.

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

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

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

(3) Coast Guard Light List;

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

(5) Local Notice or Notices to Mariners; and

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

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

(c) When operating in foreign waters, an OSV may carry an appropriate

foreign equivalent of any item required by paragraph (a) of this section.

§ 130.340 Compass.

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

Subpart D—Automation of Unattended Machinery Spaces

§ 130.400 Applicability.

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

§ 130.410 General.

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

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

(1) Capabilities of the automated system;

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

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

(c) Equipment, provided to eliminate crew members in particular or to reduce crew members in general, that in the judgment of the OCMI proves unsafe or unreliable must be immediately replaced or repaired; otherwise, the OCMI will require added crew members to compensate for the equipment's inadequacy.

§ 130.420 Controls.

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

§ 130.430 Pilothouse control.

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

§ 130.440 Communications system.

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

(b) The communications system must be either—

(1) An alarm that—

(i) Is dedicated for this purpose;

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

(iii) Is operable from the pilothouse; or

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

(i) Is a sound-powered telephone; or

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

§ 130.450 Machinery alarms.

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

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

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

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

(e) Each OSV must provide for testing each visible and audible alarm.

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

§ 130.460 Placement of machinery alarms.

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

(1) Loss of power for propulsion control.

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

(3) Engine-room fire.

(4) High bilge-level.

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

(6) For each main propulsion engine and each prime mover of a generator—

(i) High lube-oil temperature; and

(ii) High jacket-water temperature.

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

(i) Low lube-oil pressure; and

(ii) High lube-oil temperature.

(8) Loss of normal power for the alarms listed in paragraphs (a)(1) through (a)(7) of this section.

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

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

(2) The compartment that contains the rudder post.

(c) Centralized displays must be installed in the machinery spaces to allow rapid evaluation of each problem detected by the alarms required by paragraph (a) of this section.

Equipment-mounted gages or meters are acceptable for this purpose, if they are grouped at a central site.

§ 130.470 Fire alarms.

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

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

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

§ 130.480 Test procedure and operations manual.

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

(b) The procedure for tests must—
(1) Be in a sequential-checkoff format;
(2) Include the required alarms, controls, and communications; and
(3) Set forth details of the tests.

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

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

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

PART 131—OPERATIONS

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131.835 Portable fire extinguishers.

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131.845 Instructions for shift of steering gear.

131.850 Rudder orders.

131.855 Lifeboats and rescue boats.

131.860 Rigid liferafts.

131.865 Inflatable liferafts and inflatable buoyant apparatus.

131.870 Lifeboats and buoyant apparatus.

131.875 Lifejackets, immersion suits, and ring lifebuoys.

131.880 Fire hoses and axes.

131.885 Portable magazine chests.

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131.965 Sounding of whistle.

131.970 Unauthorized lighting.

131.975 Searchlights.

131.980 Lookouts and watches.

Authority: 33 U.S.C. 1321(j); 46 U.S.C. 3306, 6101, 8105, 10104; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; 49 CFR 1.46.

Subpart A—Notice of Casualty and Records of Voyage

§ 131.110 Notice and records.

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

Subpart B—Markings on Vessels

§ 131.210 Hulls.

Each OSV must be marked as required by parts 67 and 69 of this chapter.

§ 131.220 Drafts.

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

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

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

(d) When a skeg or other appendage extends below the line of the keel, the draft at the end of the OSV adjacent to that appendage must be measured to a line tangent to the lowest part of the appendage and parallel to the line of the bottom of the keel.

(e) Drafts must be separated so that the projections of the marks onto a vertical plane are of uniform height, equal to the vertical spacing between consecutive marks.

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

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

§ 131.230 Loadlines and decklines.

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

Subpart C—Preparations for Emergencies

§ 131.310 List of crew members and offshore workers.

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

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

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

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

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

§ 131.320 Safety orientation for offshore workers.

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

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

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

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

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

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

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

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

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

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

(10) Survival craft to which assigned;

(11) Any hazardous materials on the vessel; and

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

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

§ 131.330 Emergency instructions.

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

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

§ 131.340 Recommended placard for emergency instructions.

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

Emergency Instructions

(a) *Rough weather at sea, crossing of hazardous bars, or flooding.*

(1) Close each watertight and weathertight door, hatch, and air-port to prevent taking water aboard or further flooding in the OSV.

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

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

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

(5) Offshore workers remain seated and evenly distributed.

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

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

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

(b) "Man overboard".

(1) Throw a ring buoy into the water as close to the person overboard as possible.

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

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

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

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

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

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

(c) *Fire.*

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

(2) Deenergize electrical systems supplying the affected compartment.

(3) Immediately use a portable fire extinguisher aimed at the base of the flames. Never use water on electrical fires.

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

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

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

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

§ 131.350 Station bill.

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

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

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

(1) The closing of hatches, air-ports, watertights doors, vents, and scuppers,

and of intake valves and discharge lines that penetrate the hull; the stopping of fans and ventilating systems; and the operating of safety equipment.

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

(3) The extinguishing of fire.

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

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

(ii) Directing them to their appointed stations.

§ 131.360 Responsibilities of licensed or certificated individuals.

Nothing in the emergency instructions or in any station bill required by this subpart exempts any licensed or certificated individual from the exercise of good judgment in an emergency.

Subpart D—Sufficiency and Supervision of Crew of Survival Craft

§ 131.410 Certificate of proficiency.

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

§ 131.420 Manning and supervision.

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

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

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

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

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

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

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

(ii) Permitted to carry more than 40 persons.

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

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

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

Subpart E—Tests, Drills, and Inspections

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

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

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

§ 131.510 Draft and loadline markings.

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

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

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

§ 131.513 Verification of compliance with applicable stability requirements.

(a) After loading but before departure, and at other times necessary to assure the safety of the OSV, the master shall verify that the vessel complies with requirements in its trim-and-stability book, stability letter, Certificate of Inspection, and Loadline Certificate, whichever apply, and then enter a statement of the verification in the

logbook. The vessel may not leave port until it is in compliance with these requirements.

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

§ 131.515 Periodic sanitary inspections.

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

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

§ 131.520 Hatches and other openings.

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

§ 131.525 Emergency lighting and power.

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

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

(c) The master shall ensure that storage batteries driving fitted systems for emergency lighting and power are tested at least once each 6 months that the OSV is operated, to demonstrate the ability of the batteries to supply the emergency loads for the period specified by Table 112.05-5(a) of this chapter for cargo vessels.

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

§ 131.530 Abandon-ship training and drills.

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

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

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

(3) The material must explain the—

- (i) Method of donning immersion suits and lifejackets carried aboard;
- (ii) Mustering at assigned stations;
- (iii) Proper boarding, launching, and clearing of survival craft and rescue boats;
- (iv) Method of launching survival craft by people within them;
- (v) Method of releasing survival craft from launching-appliances;
- (vi) Use of devices for protecting survival craft in launching-areas, where appropriate;
- (vii) Illumination of launching-areas;
- (viii) Use of each item of survival equipment;
- (ix) Instructions for emergency repair of lifesaving appliances;
- (x) Use of radio lifesaving-appliances, with illustrations;
- (xi) Use of sea anchors;
- (xii) Use of engine and accessories, where appropriate;
- (xiii) Recovery of survival craft and rescue boats, including stowage and securing;
- (xiv) Hazards of exposure and need for warm clothing;
- (xv) Best use of survival craft for survival; and
- (xvi) Methods of retrieving personnel, including use of helicopter-mounted rescue gear (slings, baskets, stretchers) and vessel's line-throwing apparatus.

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

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

(2) On a voyage likely to take more than 24 hours to complete:

(i) A muster of offshore workers must be held on departure. The master shall

ensure that each worker is assigned to a survival craft and is told where to find it. Each person in charge of such a craft shall maintain a list of workers assigned to the craft.

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

(3) Each abandon-ship drill must include:

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

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

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

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

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

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

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

(viii) Operation of davits used for launching liferafts.

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

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

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

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

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

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

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

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

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

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

(1) Each crew member either—

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

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

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

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

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

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

(2) If a crew member is on a regularly scheduled rotating assignment to a vessel, training aboard in the use of the vessel's lifesaving appliances, including equipment on survival craft, must be given to the member not later than 2 weeks after the member first joins the vessel.

(3) Each crew member must be instructed in the use of the vessel's lifesaving equipment and appliances and in survival at sea during alternate weeks, normally in the weeks when abandon-ship drills are not held. If individual instructional sessions cover different parts of the vessel's lifesaving system, they must cover each part of the vessel's lifesaving equipment and appliances each 2 months. Each member must be instructed in at least—

(i) Operation and use of the vessel's inflatable liferafts;

(ii) Problems of hypothermia, first aid for hypothermia, and other appropriate procedures; and

(iii) Special procedures necessary for use of the vessel's lifesaving equipment and appliances in heavy weather.

(4) Training in the use of davit-launched inflatable liferafts must take place at intervals of not more than 4 months on each vessel with such

liferrafts. Whenever practicable this must include the inflation and lowering of a liferaft. If this liferaft is a special one intended for training only, and is not part of the vessel's lifesaving system, it must be conspicuously so marked.

(e) Dates when musters are held, details of abandon-ship drills, drills on other lifesaving equipment and appliances, and training aboard must be entered in the OSV's official logbook. Each logbook entry must include the following, as applicable:

- (1) Time and date.
- (2) Length of drill or training session.
- (3) Identification of survival craft used in drills.
- (4) Subject of training session.
- (5) Statement on the condition of the equipment used.
- (6) Unless a full muster, drill, or training session is held at the appointed time, the circumstances and the extent of the muster, drill, or training session held.

§ 131.535 Firefighting training and drills.

(a) A fire drill must be held on each OSV, normally in alternate weeks. It must not be held as part of the abandon-ship drill, nor immediately before or after the abandon-ship drill. If none can be held on schedule, because of bad weather or other unavoidable constraint, one must be held at the next opportunity.

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

(c) Each fire drill must include:

- (1) Summoning of crew members and offshore workers to their stations with the general alarm.
- (2) Simulation of a fire emergency that varies from drill to drill.
- (3) Reporting of crew members and offshore workers to stations, and preparing for, and demonstrating of the duties assigned under the procedure described in the station bill for, the particular fire emergency being simulated.
- (4) Starting of fire pumps and use of a sufficient number of outlets to determine that the system is working right.
- (5) Bringing out of each breathing apparatus and other item of rescue and safety equipment from the emergency-

equipment lockers, and demonstrating of the use of each item by the person or persons that will make use of it.

- (6) Operation of each watertight door.
- (7) Operation of each self-closing fire door.
- (8) Closing of each fire door and each door within the fire boundary.
- (9) Closing of each ventilation closure of each space protected by a fixed fire-extinguishing system.

(d) Each fire drill must, as far as practicable, be conducted as if there were an actual emergency.

(e) The dates when fire drills are held, and details of training in fire fighting and of fire drills, must be entered in the OSV's official logbook. Each logbook entry must include the following, as applicable:

- (1) Time and date.
- (2) Length of drill or training session.
- (3) Number and lengths of hose used.
- (4) Subject of training session.
- (5) Statement on the condition of the equipment used.
- (6) Unless a full drill or training session is held at the appointed time, the circumstances and the extent of the drill or training session held.

§ 131.540 Operational readiness.

(a) Except as provided by § 131.545(e) of this subpart, each lifesaving appliance and each item of equipment for a lifeboat, liferaft, survival craft, rescue boat, life float, or buoyant apparatus must be in good working order and ready for immediate use before the OSV leaves port and at any time when the vessel is away from port.

(b) Each deck where a lifeboat, liferaft, survival craft, rescue boat, life float, or buoyant apparatus is stowed, launched, or boarded must be kept clear of obstructions that would interfere with the breaking out, launching, or boarding of the lifesaving appliance.

§ 131.545 Maintenance in general.

(a) For each lifesaving appliance, the manufacturer's instructions for maintenance of the appliances aboard must be aboard and must include the following:

- (1) Checklists for use in the inspections required by § 131.565(a) of this subpart.
- (2) Instructions for maintenance and repair.
- (3) A schedule of periodic maintenances.
- (4) A diagram of lubrication points with the recommended lubricants.
- (5) A list of replaceable parts.
- (6) A list of sources of spare parts.
- (7) A log for records of inspections, maintenance, and repair.

(b) The master shall ensure that maintenance is carried out to comply

with the instructions required by paragraph (a) of this section.

(c) For lifesaving appliances constructed on or before July 1, 1986, paragraph (a) of this section need be complied with only to the extent that appliances' manufacturers' instructions are available.

(d) The OCMI may accept, instead of the instructions required by paragraph (a) of this section, a program for planned shipboard maintenance that includes the items listed in that paragraph.

(e) If lifeboats and rigid liferafts are maintained and repaired while the OSV is under way, there must be enough lifeboats and rigid liferafts available for use on each side of the vessel to accommodate each person aboard the vessel.

(f) Except in an emergency, no extensive repairs or alterations may be made to any lifesaving appliance without advance notice to the OCMI. As far as possible, each repair or alteration must be made to comply with the requirements for the appliance in subchapter Q of this chapter. The OCMI may require each appliance that has been extensively repaired or in any way altered to undergo each pertinent test in subchapter Q.

(g) The master shall report each emergency repair or alteration to a lifesaving appliance, as soon as practicable, either to the OCMI in the next ports in the United States where the OSV calls or, if the OSV does not regulatory call at ports in the United States, to the OCMI responsible for the next foreign port where the vessel calls.

(h) No lifeboat or rigid liferaft may be repaired or reconditioned for use on an OSV other than the one it was originally built for, unless specifically permitted by the OCMI. The lifeboat or rigid liferaft must be so repaired or reconditioned under the supervision of the OCMI, unless the OCMI specifically allows otherwise.

§ 131.550 Maintenance of falls.

(a) Each fall used with a launching appliance must be turned end for end at intervals of not more than 30 months.

(b) Each fall used with a launching appliance must be renewed either when necessary because of deterioration or after the passage of not more than 5 years, whichever occurs earlier.

(c) Each fall used with a launching appliance must have a corrosion-resistant tag permanently marked with—

- (1) The date the new fall was installed; and
- (2) The last date, if any, the fall was turned end for end.

§ 131.555 Spare parts and repair equipment.

Spare parts and repair equipment must be provided for each lifesaving appliance and component that either is subject to excessive wear or consumption or needs to be replaced regularly. These parts and equipment must be kept aboard the OSV, except that, if the vessel operates daily out of the same shore base, they may be kept at that base.

§ 131.560 Weekly tests and inspections.

The following tests and inspections must be carried out weekly:

- (a) Each lifesaving appliance and launching appliance must be visually inspected to ensure that it is ready for use.
- (b) Each engine of a lifeboat or a rescue boat must be run ahead and astern for not less than 3 minutes, unless the ambient temperature is below the minimal temperature required for starting the engine.
- (c) The general alarm system must be activated.
- (d) Each battery for starting the engine of a lifeboat or a rescue boat, or for energizing a searchlight, a fixed installation of a radio in a lifeboat, or a portable radio, must be brought up to full charge at least once a week if the battery is—
 - (1) Of a type that requires recharging; and
 - (2) Not connected to a device that keeps it continuously charged.
- (e) The transmitter of each fixed installation of a radio in a lifeboat and that of each portable radio must be tried out at least once a week with a dummy antenna load.

§ 131.565 Monthly tests and inspections.

- (a) Each lifesaving appliance, including lifeboat equipment, must be inspected monthly against the checklist required by § 131.545(a)(1) of this subpart to ensure that it is aboard and in good order. A report of the inspection, including a statement on the condition of the appliance, must be entered in the OSV's logbook.
- (b) Each emergency position indicating radio beacon (EPIRB) and each search and rescue transponder (SART), other than an EPIRB or SART in an inflatable liferaft, must be tested monthly. The EPIRB must be tested using the integrated test circuit and the output indicator to determine that it works.

§ 131.570 Quarterly inspections.

- (a) Each apparatus that controls a lifeboat winch, including motor controllers, emergency switches, master

switches, and limit switches, must be inspected once each 3 months.

(b) The inspection must involve the removal of drain plugs and the opening of drain valves to ensure that enclosures are free of water.

(c) The date of the inspection required by this section and the condition of the equipment must be entered in the OSV's logbook.

§ 131.575 Yearly inspections and repair.

(a) Each lifeboat, rescue boat, rigid liferaft, buoyant apparatus, and life float must be stripped, cleaned, and thoroughly inspected and repaired as needed at least once a year. This procedure includes emptying and cleaning each fuel tank and refilling it with fresh fuel.

(b) Each davit, winch, fall, and other launching-appliance must be thoroughly inspected and repaired as needed once a year.

(c) Each item of survival equipment with an expiration date must be replaced during the annual inspection and repair if this date has passed.

(d) Each battery used in an item of survival equipment and clearly marked with an expiration date must be replaced during the annual inspection and repair if this date has passed.

(e) Except a storage battery used in a lifeboat or in a rescue boat, each battery used in an item of survival equipment and not clearly marked with an expiration date must be replaced during the annual inspection and repair.

(f) Compliance with the requirements of this section does not relieve the master or person in charge of the duty of compliance with requirements in § 131.540(a) of this subpart to keep the equipment ready for immediate use when the OSV is under way.

§ 131.580 Servicing of inflatable liferafts, inflatable lifejackets, inflatable buoyant apparatus, and inflated rescue boats.

(a) Each inflatable liferaft, inflatable lifejacket, inflatable buoyant apparatus, and hybrid inflatable lifejacket or work vest must be serviced within 12 months of—

- (1) Its initial packing; and
- (2) Each subsequent servicing, except when a servicing due after 12 months is delayed not more than 5 months until the next scheduled inspection of the OSV.

(b) Each inflatable liferaft and inflatable buoyant apparatus must be serviced—

- (1) Whenever the container of the raft is damaged, or the straps or seal broken; and
- (2) In compliance with subpart 160.051 of this chapter.

(c) Each inflatable lifejacket must be serviced in compliance with subpart 160.176 of this chapter.

(d) Each hybrid inflatable lifejacket or work vest must be serviced in compliance with subpart 160.077 of this chapter.

(e) Repair and maintenance of inflated rescue boats must follow the manufacturers' instructions. Each repair, except an emergency repair made aboard the OSV, must be made at servicing facilities approved by the Commandant (G-MMS).

§ 131.585 Periodic servicing of hydrostatic-release units.

(a) Except a disposable hydrostatic-release unit with an expiration date, each hydrostatic-release unit must be serviced—

(1) Within 12 months of its manufacture and within 12 months of each subsequent servicing, except when a servicing due after 12 months is delayed not more than 5 months until the next scheduled inspection of the OSV; and

(2) In compliance with subpart 160.062 of this chapter.

(b) The springs of each spring-tensioned gripe used with a hydrostatic-release unit must be renewed when the unit is serviced and tested.

§ 131.590 Firefighting equipment.

(a) The master shall ensure that the OSV's required firefighting equipment is on board in the prescribed location and always ready for use, other than when the equipment is being serviced.

(b) The master shall, at least once each 12 months, ensure the performance of the tests and inspections of each portable fire extinguisher, semiportable fire extinguisher, and fixed fire-extinguishing system aboard described by Tables 132.350(a) and 132.350(b) of this subchapter.

(c) The master shall keep records of these tests and inspections, showing the dates of their performance, the number or other identification of each unit undergoing them, and the name of the person or company conducting them. The records must be made available to the marine inspector upon request and must be kept for the period of validity of the OSV's current Certificate of Inspection.

(d) The conducting of tests and inspections required by this section does not relieve the master of his responsibility to maintain the prescribed firefighting equipment in working order for use at any time when the OSV is under way.

Subpart F—Logs**§ 131.610 Logbooks and records.**

(a) Each OSV must by statute, or by regulations in this subchapter, have certain logbooks or records. The master shall make specific entries required by statute, or by regulations in this subchapter.

(b) 46 U.S.C. 11301 states that a vessel of the United States, except one on a voyage from a port in the United States to a port in Canada, shall have an official logbook if the vessel is—

(1) On a voyage from a port in the United States to a foreign port; or

(2) Of at least 100 gross tons and on a voyage between a port in the United States on the Atlantic Ocean and one on the Pacific Ocean.

(c) The Coast Guard gratuitously furnishes to masters of vessels of the United States the official logbook as Form CG-706B or CG-706C, depending upon the number of persons employed as crew. The first several pages of this logbook list various acts of Congress governing logbooks and the entries required in them.

(d) When a voyage is completed, or after a specified time has elapsed, the master shall file the official logbook containing required entries with the OCMI at or nearest the port where the vessel may be.

(e) Unless an official logbook is required, the owner, operator, or master shall supply an alternative log or record for making entries required by law, including regulations in this subchapter. This log or record need not be filed with the OCMI, but must be kept available for review by a marine inspector for a year after the date that the latest entry concerns.

§ 131.620 Matters that must be logged.

The following matters must be entered in each OSV's logbook:

(a) Safety Orientation for Offshore Workers. As held. See § 131.320.

(b) Tests and inspection of Steering Gear, Whistle, and Means of Communication. Before departure. See § 131.505.

(c) Draft and Loadline Markings. Before leaving port. Ocean and coastwise voyages only. See § 131.510.

(d) Verification of Compliance with Applicable Stability Requirements. See § 131.513.

(e) Periodic Sanitary Inspections. After periodic sanitary inspections made by the master. See § 131.515.

(f) Hatches and Other Openings. Each opening and closing, or departure from port without closing (except by vessels on protected waters). See § 131.520.

(g) Tests of Emergency Lighting and Power. Weekly and twice-yearly. See § 131.525.

(h) Abandon-Ship Training and Drills, and Firefighting Training and Drills. As held. See §§ 131.530 and 131.535.

(i) Inspection of Lifeboat Winches. Once each 3 months. See § 131.570.

§ 131.630 Entries in official logbooks.

On each OSV required to have an Official Logbook, the items required by 46 U.S.C. 11301 must be entered in the logbook, as well as the items required by § 131.620.

Subpart G—Work Vests**§ 131.710 Approved work vests of unicellular plastic foam.**

Each buoyant work vest carried aboard must be approved under subpart 160.053 of this chapter or, as a commercial hybrid personal flotation device, under subpart 160.077 of this chapter.

§ 131.720 Use.

(a) An approved buoyant work vest is an item of safety apparel and may be carried aboard for wear by a crew member when working near or over the water.

(b) The vest may not count against an OSV's complement of lifejackets.

(c) The vest may not be worn instead of a lifejacket during a drill.

§ 131.730 Shipboard stowage.

(a) The master shall ensure that no buoyant work vest is stowed where any lifejacket is stowed.

(b) Each space containing a vest must be marked "WORK VEST".

§ 131.740 Shipboard inspections.

Each buoyant work vest must be subject to examination by a marine inspector, to determine its serviceability. If found serviceable, it may continue in service; but no buoyant work vest is stamped as inspected. If not found serviceable, and if determined irreparable by the inspector, a buoyant work vest must be destroyed in the presence of the inspector.

Subpart H—Markings for Fire Equipment and Emergency Equipment**§ 131.800 General.**

(a) This section prescribes markings necessary for the guidance of persons aboard in case of an emergency. The markings may be modified or omitted, if they are unnecessary because the OSV is small or particular circumstances warrant and if the OCMI approves.

(b) Each stateroom notice, directional sign, and the like must be printed in

English and in other languages appropriate to the service of the OSV.

(c) Where this subpart specifies red letters, letters of a contrasting color on a red background are acceptable.

§ 131.805 General alarm bell, switch.

The switch in the pilothouse that activates the general alarm bell must be clearly and permanently identified either by letters on a metal plate or with a sign in red letters on a suitable background: "GENERAL ALARM."

§ 131.810 General alarm bell.

Each general alarm bell must be identified by red letters at least 1/2-inch high: "GENERAL ALARM—WHEN BELL RINGS GO TO YOUR STATION."

§ 131.815 Alarm for fixed gaseous fire extinguishing system.

Each alarm for a fixed gaseous fire extinguishing system must be conspicuously identified: "WHEN ALARM SOUNDS, LEAVE AT ONCE: [CARBON DIOXIDE] [HALON] BEING RELEASED."

§ 131.820 Branch lines of fire extinguishing system.

The valves of each branch line in the fire extinguishing system must be plainly and permanently marked, indicating the spaces served.

§ 131.825 Controls of fire extinguishing system.

Each control cabinet or space containing a valve or manifold for a fire extinguishing system must be distinctly marked in conspicuous red letters at least 2 inches high: "FIRE APPARATUS FOR [CARBON DIOXIDE] [HALON]".

§ 131.830 Fire host stations.

Each fire station must be identified in red letters and figures at least 2 inches high: "FIRE STATION #1," "* * * 2," "* * * 3," and so on. Where the hose is not so stowed in the open or behind glass as to be readily seen, this identification must be so placed as to be readily seen from a distance.

§ 131.835 Portable fire extinguishers.

(a) Except as provided by paragraph (b) of this section, each portable fire extinguisher must be marked with a number, and the site of its stowage must be marked with a corresponding number at last 1/2-inch high.

(b) If only one type and size of portable fire extinguisher is carried, the number may be omitted.

§ 131.840 Emergency lighting.

Emergency lighting must be marked with a letter "E" at least 1/2-inch high.

§ 131.845 Instructions for shift of steering gear.

(a) Instructions, including diagrams, for a shift of steering gear and for a shift to the alternative steering stations must be on water-resistant material and posted at each steering station and in the steering-engine room, relating, in order, the different steps to take in either shift.

(b) The instructions must indicate each clutch or pin to be "in" or "out" and each valve or switch to be "open" or "closed" in a shift to any means of steering for which the OSV is equipped.

(c) The instructions must specify that each steering wheel or lever, and each rudder, must be amidships before any shift of steering gear or steering stations.

(d) Each clutch, gear, wheel, lever, valve, or switch used during any shift of steering gear or steering stations must be numbered or lettered on a metal plate or painted so that the numbers or letters are recognizable at a reasonable distance.

§ 131.850 Rudder orders.

At each steering station there must be installed a suitable notice on the wheel or lever, or in some other place directly in the helmsman's line of sight, to indicate the direction in which to turn the wheel or lever for "right rudder" and for "left rudder."

§ 131.855 Lifeboats and rescue boats.

(a) The following must be plainly marked or painted on each side of the bow of each lifeboat and rescue boat in letters and numbers at least 3 inches high and in a color contrasting to that of the boat:

(1) The name of the OSV.

(2) The number of the boat. (The boats on each side of the vessel must be numbered from forward to aft. If there are boats on both sides of the vessel, the odd numbers must be on the starboard side.)

(3) For each vessel in ocean service, the name of the port whose marking on the stern is required under subpart 67.13 of this chapter.

(b) The following must be plainly marked or painted on each side of the bow of each lifeboat and rescue boat in letters and numbers at least 1½ inches high:

(1) The length and beam of the boat.

(2) The number of persons the boat will hold. This number must—

(i) Be the number of persons the boat is equipped for; and

(ii) Not be greater than the number of persons the boat is approved for, as shown on its nameplate.

(c) The following must be plainly marked or painted on each lifeboat and

rescue boat, in at least two places visible from above the boat, in letters and numbers at least 3 inches high and in a color contrasting to that of the boat:

(1) The number of persons the boat will hold.

(2) The name of the OSV.

(d) The name of the OSV must be plainly marked or painted on each oar and paddle.

(e) Each lifeboat and rescue boat must be marked with Type II retro-reflective material approved under subpart 164.018 of this chapter. The arrangement of the retro-reflective material must comply with IMO Resolution A.658(16).

§ 131.860 Rigid liferafts.

(a) The following must be plainly marked or painted, near one entrance of each rigid liferaft, in letters and numbers at least 3 inches high and in a color contrasting to that of the raft:

(1) The name of the OSV.

(2) The number of the raft. (Rafts stowed on the sides of the vessel must be numbered as lifeboats must under § 131.855(a)(2).)

(3) For each vessel in ocean service, the name of the port whose marking on the stern of the vessel is required by subpart 67.13 of this chapter.

(b) The length of the painter must be plainly marked or painted, near one entrance of each rigid liferaft, in letters and numbers at least 1½ inches high and in a color contrasting to that of the raft.

(c) The number of persons the rigid liferaft is approved for must be plainly marked or painted, over each entrance to each raft, in letters and numbers at least 4 inches high and in a color contrasting to that of the raft. This number must—

(1) Be the number of persons the raft is equipped for; and

(2) Not be greater than the number of persons the raft is approved for, as shown on its nameplate.

(d) The name of the OSV must be plainly marked or painted on each paddle.

§ 131.865 Inflatable liferafts and inflatable buoyant apparatus.

The number of the inflatable liferaft or inflatable buoyant apparatus and the number of persons it is approved for must be marked or painted, in a conspicuous place in the immediate vicinity of each raft and each apparatus, in letters and numbers at least 1½ inches high and in a color contrasting to that of the raft or apparatus. Each raft or apparatus stowed on the side of an OSV must be numbered like a liferaft, in compliance with § 97.37-40 of this

chapter. No letters or numbers may go on the raft or on the container of the apparatus.

§ 131.870 Life floats and buoyant apparatus.

(a) The name of the OSV must be plainly marked or painted on each life float or buoyant apparatus, and on each oar and paddle.

(b) The number of persons each life float or buoyant apparatus is approved for must be plainly marked or painted on each float or apparatus in letters and numbers at least 1½ inches high and in a color contrasting to that of the float or apparatus. This number must—

(1) Be the number of persons the float or apparatus is equipped for; and

(2) Not be greater than the number of persons the float or apparatus is approved for, as shown on its nameplate.

§ 131.875 Lifejackets, immersion suit, and ring life buoys.

(a) Each lifejacket immersion suit, and ring life buoy must be marked in block capital letters with the OSV's name.

(b) Each container for lifejackets and immersion suits must be marked in letters and numbers at least 2 inches high with the number, identity or IMO symbol specified by IMO Resolution A.760(18), and size of the items stowed inside.

(c) Each ring life buoy on an OSV in ocean service must be marked in block capital letters with the name of the port whose marking on the stern of the vessel is required by subpart 67.13 of this chapter.

(d) Each stowage site for a ring life buoy must be marked "LIFE BUOY" or marked with the IMO symbol.

(e) Each lifejacket must be marked with Type I retro-reflective material approved under subpart 164.018 of this chapter. The arrangement of the retro-reflective material must comply with the IMO Resolution A.658(16).

(f) Each ring life buoy must be marked with Type I or II retro-reflective material approved under subpart 164.018 of this chapter. The arrangement of the retro-reflective material must comply with IMO Resolution A.658(16).

§ 131.880 Fire hoses and axes.

Each fire hose and axe must be marked with the OSV's name.

§ 131.885 Portable magazine chests.

Each portable magazine chest must be marked in letters at least 3 inches high: "PORTABLE MAGAZINE CHEST—FLAMMABLE: KEEP FIRE AND LIGHTS AWAY."

§ 131.890 EPIRBs and SARTs.

The name of the OSV must be plainly marked or painted on each Emergency Position Indicating Radio Beacon (EPIRB) and on each Search and Rescue Transponder (SART), except on an EPIRB or SART—

- (a) In an inflatable liferaft; or
- (b) Permanently installed in a survival craft.

§ 131.893 Watertight doors and watertight hatches.

Each watertight door in a bulkhead that must be watertight in compliance with the requirements in part 174 of this chapter, and each watertight hatch, must be marked on both sides in letters at least 2 inches high: "WATERTIGHT DOOR—KEEP CLOSED EXCEPT FOR PASSAGE" or "WATERTIGHT HATCH—KEEP CLOSED WHEN NOT IN USE".

§ 131.896 Remote stopping systems.

The remote stopping systems required by § 129.540 of this subchapter must be clearly marked to show what system each controls.

§ 131.899 Fire dampers.

Each fire damper installed within the boundary of a space protected by a fixed fire extinguishing system must be fitted with an indicator showing whether the damper is open or closed and be marked with red letters at least 1/2-inch high stating "FIRE DAMPER" and, as otherwise appropriate, identifying the space served by the fire damper.

Subpart I—Miscellaneous**§ 131.905 Statutory penalties.**

(a) The marine-safety statutes and criminal statutes impose penalties for violating the applicable provisions of this subchapter. Penal proceedings include:

- (1) Assessment and collection of civil monetary penalty.
 - (2) Criminal prosecution, where no loss of life results.
 - (3) Criminal prosecution for manslaughter, where loss of life results from violating marine-safety statutes or regulations or from misconduct, negligence, or inattention to duty.
 - (4) Libel against vessel.
- (b) 46 U.S.C. Chapter 77 allows, in addition to the foregoing, the suspension or revocation of licenses, certificates, or documents issued by the Coast Guard, for incompetence, misconduct, or negligence or for violating marine-safety statutes or regulations.

§ 131.910 Notices to mariners and aids to navigation.

Each master and mate shall acquaint himself or herself with the latest information published by the Coast Guard and the U.S. Navy regarding aids to navigation in the area in which the OSV operates.

§ 131.915 Persons allowed in pilothouse and on navigational bridge.

No person may be in the pilothouse while the OSV is under way, unless connected with the navigation of the vessel or authorized for good cause by the master or mate on watch.

§ 131.920 Level of manning.

Each OSV must carry the personnel required by the Certificate of Inspection, as determined by the OCMI, based on an evaluation under part 15 of this chapter.

§ 131.925 Compliance with provisions of Certificate of Inspection.

The master of the OSV shall ensure compliance with each provision of the Certificate of Inspection. Nothing in this subchapter prevents the master's diverting the vessel from the route prescribed in the Certificate or taking other steps necessary and prudent to assist vessels in distress or to handle similar emergencies.

§ 131.930 Display of stability letter.

If the Coast Guard issues a stability letter under § 170.120 of this chapter, the letter must be readily available to the person on watch in the pilothouse of the OSV.

§ 131.935 Prevention of oil pollution.

Each OSV must be operated in compliance with, among others, 33 CFR parts 151, 155, and 156.

§ 131.940 Marine sanitation device.

Each OSV with installed toilet facilities must have a marine sanitation device in compliance with 33 CFR part 159.

§ 131.945 Display of plans.

Each OSV must have permanently exhibited, for the guidance of the master and crew members, general arrangement plans showing for each deck the various fire-retardant bulkheads together with particulars of the—

- (a) Fire-detection systems;
- (b) Manual-alarm systems;
- (c) Fire-extinguishing systems;
- (d) Fire doors;
- (e) Means of ingress to the different compartments; and
- (f) Ventilating-systems, including the—
 - (1) Positions of the dampers;
 - (2) Site of the remote means of stopping the fans; and

- (3) Identification of the fans serving each section.

§ 131.950 Placard on lifesaving signals and helicopter recovery.

Each OSV must have readily available to the person on watch in the pilothouse a placard (Form CG-811) containing instructions—

- (a) For the use of lifesaving signals set forth in Regulation 16, Chapter V, of SOLAS 74/83; and
- (b) In helicopter recovery.

The signals must be employed by vessels or persons in distress when communicating with lifesaving stations and maritime rescue unit.

§ 131.955 Display of license.

Each master and licensed officer on an OSV shall conspicuously display his or her license in compliance with 46 U.S.C. 7110.

§ 131.960 Use of auto-pilot.

During the use of the automatic pilot, the master shall ensure that—

- (a) It is possible to immediately establish manual control of the OSV's steering;
- (b) A competent person is ready at any time to take over that control; and
- (c) The shift from automatic control of the vessel's steering to manual and the reverse is made by, or under the supervision of, the master or officer of the watch.

§ 131.965 Sounding of whistle.

No OSV may sound its whistle within any harbor limits of the United States unless it needs to.

§ 131.970 Unauthorized lighting.

No master of an OSV may authorize or permit the OSV's carrying of any lighting not required by law that will interfere in any way with any other vessel's distinguishing the OSV's navigation lighting.

§ 131.975 Searchlights.

No person may flash, or cause to be flashed, the rays of a searchlight or other blinding light onto the bridge or into the pilothouse of any vessel under way.

§ 131.980 Lookouts and watches.

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

PART 132—FIRE-PROTECTION EQUIPMENT**Subpart A—Fire Main**

Sec.

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

Subpart B—Portable and Semiportable Fire Extinguishers

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

Subpart C—Miscellaneous

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

Authority: 46 U.S.C. 3306; 49 CFR 1.46.

Subpart A—Fire Main**§ 132.100 General.**

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

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

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

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

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

§ 132.110 Piping.

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

- (1) Hot-dip galvanized;
- (2) At least extra-heavy schedule; or
- (3) Of a suitable corrosion-resistant material.

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

§ 132.120 Fire pumps.

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

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

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

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

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

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

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

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

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

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

§ 132.130 Fire stations.

(a) Except as provided by paragraph (b) of this section, fire stations must be so numerous and so placed that each part of the OSV accessible to persons aboard while the vessel is being

operated, and each cargo hold, are reachable by at least two effective spray patterns of water. At least two patterns must come from separate hydrants. At least one pattern must come from a single length of hose.

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

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

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

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

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

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

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

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

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

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

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

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

(n) Each section of fire hose must be lined commercial fire hose, or lined fire hose that meets Standard 19 of Underwriters Laboratories, Inc. (UL). Hose that bears the UL label as lined fire hose complies with this section.

Subpart B—Portable and Semiportable Fire Extinguishers

§ 132.210 Classification.

(a) Each portable fire extinguisher and semiportable fire extinguisher is classified by a symbol combining letter and number. The letter indicates the

type of fire that the unit should extinguish; the number indicates the relative size of the unit.

(b) The types of fire are:

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

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

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

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

TABLE 132.210

Classification		Halon 1211,1301, and 1211-1301 mixtures, pounds	Foam, gallons	Carbon dioxide, pounds	Dry chemical, pounds
Type	Size				
A	II .....	.....	2½	.....	.....
B	I	2½	.....	4	2
B	II	10	2½	15	10
B	III .....	.....	12	35	20
B	IV .....	.....	20	50	30
B	V .....	.....	40	100	50
C	I	2½	.....	4	2
C	II	10	.....	15	10

(d) Each portable fire extinguisher and semiportable fire extinguisher must have permanently attached an identification plate that gives the name of the extinguishing-agent, the capacity of the agent in gallons or pounds, the classification of the extinguisher expressed by letter or letters indicating

the type or types of fire for which it is intended, and the identifying mark of the manufacturer.

§ 132.220 Installation.

(a) Portable fire extinguishers approved under subpart 162.028 of this chapter and semiportable fire extinguishers approved under subpart

162.039 of this chapter must be installed in compliance with Table 132.220 of this section. The placement of the extinguisher must satisfy the OCMI. The OCMI may require such additional extinguishers as the OCMI deems necessary for the proper protection of the OSV.

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

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

(*) Not required where a fixed gaseous fire-extinguishing system is installed.

(**) Not required on OSVs of less than 300 gross tons.

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

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

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

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

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

§ 132.230 Spare charges.

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

(b) An OSV may—rather than comply with paragraph (a) of this section—carry one extra extinguisher of the same classification.

(c) If extinguishers of a particular classification cannot be readily recharged by crew members, an OSV must—rather than comply with paragraph (a) of this section—carry one more extinguisher of that classification.

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

§ 132.240 Stowage of semiportable fire extinguishers.

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

Subpart C—Miscellaneous

§ 132.310 Fixed fire extinguishing systems for paint lockers.

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

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

- (1) Less than 60 cubic feet in volume;
- (2) Accessible only from the weather deck; and

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

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

§ 132.320 Helicopter-landing decks.

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

§ 132.330 Fire monitors.

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

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

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

§ 132.340 Equipment installed although not required.

An OSV may install equipment for detection of and protection against fires beyond that required by this subchapter, unless the excess equipment in any way endangers the vessel or the persons aboard. This equipment must be listed and labeled by a nationally recognized testing laboratory.

§ 132.350 Tests and inspections of fire-extinguishing equipment.

(a) Each master of an OSV shall ensure that the tests and inspections, of fire-extinguishing equipment, described

by paragraph (b) of this section are performed—

- (1) Every 12 months; or
- (2) Not later than the next inspection for certification, unless the total time from the date of the last tests and inspections exceeds 15 months.

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

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

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

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

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

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

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

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

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

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

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

Type of system	Test
Dry chemical (cartridge-operated).	Examine pressure cartridge and replace if end is punctured or if cartridge has leaked or is in unsuitable condition. Inspect hose and nozzle to see that they are clear. Insert charged cartridge. Ensure that dry chemical is free-flowing (not caked) and that extinguisher contains full charge
Dry chemical (stored pressure).	See that pressure gauge is in operating range. If not, or if seal is broken, weigh or otherwise determine that extinguisher is fully charged with dry chemical. Recharge if pressure is low or if dry chemical is needed.
Foam (stored pressure)	See that pressure gauge, if there is one, is in the operating range. If it is not, or if seal is broken, weigh or otherwise determine that extinguisher is fully charged with foam. Recharge if pressure is low or if foam is needed. Replace premixed agent every 3 years.

(3) The fire-main system must be operated, and the pressure checked at the remotest and highest outlets. Each fire hose must be subjected to a test pressure, equivalent either to the maximal pressure to which it may be subjected in service or to 100 psi, whichever is greater.

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

§ 132.360 Fire axes.

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

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

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

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

§ 132.370 Added requirements for fixed independent and portable tanks.

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

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

PART 133—RESERVED FOR LIFESAVING SYSTEMS

PART 134—ADDED PROVISIONS FOR LIFTBOATS

Sec.

134.100	Applicability.
134.110	Initial inspection.
134.120	Inspection for certification.
134.130	New construction.
134.140	Structural standards.
134.150	Liftboat-jacking systems.
134.160	Freeboard markings.
134.170	Operating manual.
134.180	Piping for fire-main suction.

Authority: 46 U.S.C. 3306; 49 CFR 1.46.

§ 134.100 Applicability.

This part, as well as parts 125 through 133 of this subchapter, applies to each liftboat of United States flag to which this subchapter applies.

§ 134.110 Initial inspection.

Liftboat jacking systems, liftboat legs, liftboat leg pads, and arrangements for supply of water to fire mains, as well as the items listed by § 126.340 of this subchapter, will normally be inspected during the initial inspection to determine whether the liftboat was built in compliance with developed plans and meets applicable regulations.

§ 134.120 Inspection for certification.

Liftboat jacking systems, liftboat legs, liftboat leg pads, and arrangements for supply of water to fire mains, as well as the items listed by § 126.430 of this subchapter, will normally be inspected during an inspection for certification to determine whether the liftboat is in satisfactory condition and fit for the service intended.

§ 134.130 New construction.

Each applicant for an original Certificate of Inspection and for approval of plans must submit, as well as three copies of those required by § 127.110 of this subchapter, three copies of the following plans:

(a) Operating Manual for Liftboats.

(b) Legs, details of supporting structure, and structural calculations.

§ 134.140 Structural standards.

(a) Except as provided by paragraph (b) of this section, each liftboat must comply with the ABS's "Rules for Building and Classing Mobile Offshore Drilling Units", assuming a steady wind speed of 100 knots, as follows:

(1) The main hull structure, legs, and supporting structure must comply with Section 3/4.3 of the Rules.

(2) The calculations required by Section 3/4.3 of the Rules must assume the vessel to be in the most adverse loading conditions described by Sections 3/2.1 and 3/4.1 of the Rules.

(3) The calculations on column-buckling required by Section 3/4.3 of

the Rules, must employ an effective-length factor, "K", of not less than 2.0.

(4) The calculations on single-rack jacking systems required by Sections 3/2.1 and 3/4.1 of the Rules must include an extra bending moment caused by the most adverse eccentric loading of the legs.

(b) The standard of any classification society, or other established standard acceptable to the Commandant (G–MMS), may be used.

(c) Upon submittal of the plans required by §§ 127.110 and 133.130 of this subchapter, the standard used in the design must be specified.

(d) If no established standard is used in the design, detailed design calculations must be submitted with the plans required by §§ 127.110 and 133.130 of this subchapter.

§ 134.150 Liftboat-jacking systems.

(a) For this subchapter, liftboat jacking systems are vital systems and must comply with Sections 4/1.13.1 through 4/1.13.3 of the ABS's "Rules for Building and Classing Mobile Offshore Drilling Units" as well as meet the applicable requirements of Part 128 of this subchapter.

(b) Each control system for a liftboat jacking system must be designed so that loss of power, loss of pressure in the hydraulic system, or low hydraulic-fluid level will activate a visible and audible alarm at the operating station and will not result in the liftboat's uncontrolled descent.

§ 134.160 Freeboard markings.

Freeboard markings required by § 174.260 of this subchapter must be both permanently scribed or embossed and painted white or yellow on a dark background.

§ 134.170 Operating manual.

(a) Each liftboat must have aboard an operating manual approved by the Coast Guard as complying with this section.

(b) The operating manual must be available to, and written so as to be easily understood by, the crew members of the liftboat and must include:

- (1) A table of contents and general index.
- (2) A general description of the vessel, including—
 - (i) Major dimensions;
 - (ii) Tonnages; and
 - (iii) Load capacities for—
 - (A) Various cargoes;
 - (B) Crane hook; and
 - (C) Helicopter landing deck.
- (3) Designed limits for each mode of operation, including—
 - (i) Draft;
 - (ii) Air gap;
 - (iii) Wave height;
 - (iv) Wave period;
 - (v) Wind;
 - (vi) Current;
 - (vii) Temperatures; and
 - (viii) Other environmental factors.
- (4) The heaviest loads allowable on deck.
- (5) Information on the use of any special cross-flooding fittings and on the location of valves that may require closure to prevent progressive flooding.
- (6) Guidance on preparing the unit for heavy weather and on what to do when heavy weather is forecast, including when critical decisions or acts—such as leaving the area and heading for a harbor of safe refuge, or evacuating the vessel—should be accomplished.
- (7) Guidance on operating the vessel while changing mode and while preparing the vessel to make a move, and information on how to avoid structural damage from shifting loads during heavy weather.
- (8) Information on inherent operational limitations for each mode and on changing modes, including preloading instructions.
- (9) Guidance on the proper procedures for discovering the flooding of a normally buoyant leg or leg pad, precautionary information concerning the effects on stability of flooded legs, and what to do upon discovering the flooding of a normally buoyant leg or leg pad.
- (10) A description, a diagram, operating guidance for the bilge system, and an alternative method of dewatering.
- (11) A general arrangement diagram showing the locations of—
 - (i) Watertight and weathertight compartments;
 - (ii) Openings in the hull and structure;
 - (iii) Vents and closures;
 - (iv) Shutdowns for mechanical and electrical emergencies, and for emergencies affecting ventilation;
 - (v) Alarms for flooding and for too-high and too-low levels;
 - (vi) Fire and gas detectors; and
 - (vii) Access to different compartments and decks.

(12) A list of shutdown locations for emergencies and guidance on restarting mechanical and electrical equipment and equipment for ventilation after shutdowns.

(13) A diagram of the hazardous locations (if applicable).

(14) A diagram of the emergency-power system.

§ 134.180 Piping for fire-main suction.

(a) Except as provided by paragraph (b) of this section, suction lines must comply with § 132.110 of this subchapter.

(b) Suction lines that extend below the main deck outside of the hull plating and that supply the fire pump with the liftboat in the elevated mode must be metallic, unless they comply with § 56.60–25(c) of this chapter for vital fresh-water and salt-water service.

PARTS 135 AND 136—[RESERVED]

PART 170—STABILITY REQUIREMENTS FOR ALL INSPECTED VESSELS

7. The authority citation for Part 170 continues to read as follows:

Authority: 43 U.S.C. 1333; 46 U.S.C. 3306, 3703; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; 49 CFR 1.46.

8. Section 170.055(g) is revised, to read as follows:

§ 170.055 Definitions concerning a vessel.

* * * * *

(g) “Downflooding angle” means, except as specified by §§ 171.055(f), 172.090(d), 173.095(e), 174.015(b), 174.035(b)(2), and 174.185 of this chapter, the static angle from the intersection of the vessel’s centerline and waterline in calm water to the first opening that cannot be closed watertight and through which downflooding can occur.

PART 174—SPECIAL RULES PERTAINING TO VESSELS OF SPECIFIC TYPES

9. The authority citation for Part 174 continues to read as follows:

Authority: 42 U.S.C. 9118, 9119, 9153; 43 U.S.C. 1333; 46 U.S.C. 3306, 3703; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; 49 CFR 1.46.

10. Paragraphs (g) and (h) are added to § 174.005, to read as follows:

§ 174.005 Applicability.

* * * * *

(g) Offshore supply vessel inspected under Subchapter L of this chapter.

(h) Liftboat inspected under Subchapter L of this chapter.

11. Subparts G and H are added to Part 174, to read as follows:

Subpart G—Special Rules Pertaining to Offshore Supply Vessels

Sec.

- 174.180 Applicability.
- 174.185 Intact stability.
- 174.190 Collision bulkheads.
- 174.195 Bulkheads in machinery spaces.
- 174.200 Damaged stability in machinery spaces.
- 174.205 Damaged stability in general.
- 174.210 Watertight doors in watertight bulkheads.
- 174.215 Drainage of weather deck.
- 174.220 Hatches and coamings.
- 174.225 Hull penetrations and shell connections.

Subpart H—Special Rules Pertaining to Liftboats

- 174.240 Applicability.
- 174.245 General.
- 174.250 Unrestricted service.
- 174.255 Restricted service.
- 174.260 Freeboard.

Subpart G—Special Rules Pertaining to Offshore Supply Vessels

§ 174.180 Applicability.

Each offshore supply vessel (OSV), except a liftboat inspected under subchapter L of this chapter, must comply with this subpart.

§ 174.185 Intact stability.

(a) Each OSV must be shown by design calculations to meet, under each condition of loading and operation, the minimal requirements for metacentric height (GM) in § 170.170 of this chapter, and in either § 170.173 of this chapter or paragraphs (b) through (e) of this section.

(b) The area under each righting arm curve must be at least 15 foot-degrees up to the smallest of the following angles:

- (1) The angle of maximum righting arm;
- (2) The downflooding angle; or
- (3) 40 degrees.

(c) The downflooding angle must not be less than 20 degrees.

(d) The righting arm curve must be positive to at least 40 degrees.

(e) The freeboard at the stern must be equal to the freeboard calculated to comply with subchapter E of this chapter or to the value taken from Table 174.185, whichever is less.

(f) For paragraphs (b) and (d) of this section, at each angle of heel an OSV’s righting arm is calculated after the vessel is permitted to trim free until the trimming moment is zero.

TABLE 174.185.—MINIMAL FREEBOARD AT THE STERN

LBP (feet)	Freeboard at stern (inches)
Less than 65	12
65 but less than 100	15
100 but less than 130	18
130 but less than 155	20
155 but less than 190	22
190 but less than 230	24
230 and greater	26

§ 174.190 Collision bulkhead.

(a) Each OSV must have a collision bulkhead in compliance with §§ 171.085(c)(1), (d), (e)(2), and (f) of this chapter.

(b) Penetration of the collision bulkhead by piping must be minimal, and, where fitted, piping must meet the requirements of §§ 56.50–1(b)(1) and (c) and 128.230 of this chapter.

§ 174.195 Bulkheads in machinery spaces.

(a) The bulkhead in each machinery space of each OSV must be watertight to the bulkhead deck.

(b) Each penetration of, and each opening in, a bulkhead in a machinery space must—

- (1) Be kept as high and as far inboard as practicable; and
- (2) Except as provided by § 174.210 of this subpart and by paragraph (c) of this section, have means to make it watertight.

(c) No penetration of a bulkhead in a machinery space by a ventilation duct need have means to make the bulkhead watertight if—

- (1) Every part of the duct is at least 30 inches from the side of the OSV; and
- (2) The duct is continuously watertight from the penetration to the main deck.

(d) Each penetration of a bulkhead in a machinery space by piping must meet the design requirements for material and pressure in subchapter F of this chapter.

§ 174.200 Damaged stability in machinery spaces.

Each OSV must be shown by design calculations to comply, under each condition of loading and operation, with §§ 174.205 (c) through (f) of this subpart in case of damage between any two watertight bulkheads in each machinery space.

§ 174.205 Damaged stability in general.

(a) *Calculations.* Each OSV carrying more than 16 offshore workers must be shown by design calculations to meet, under each afloat condition of loading and operation, the survival conditions in paragraph (e) of this section in case

of the damage specified by paragraph (b) of this section.

(b) *Character of damage.* For paragraph (a) of this section, design calculations must show that the OSV can survive damage at any place other than either the collision bulkhead or a transverse watertight bulkhead unless—

(1) The transverse watertight bulkhead is closer than the longitudinal extent of damage, specified by Table 174.205(b), to the adjacent transverse watertight bulkhead; or

(iv) Watertight door in compliance with § 174.210 of this subpart; or

(v) Side scuttle of the non-opening type.

(2) *Angle of heel.* The angle of heel must not exceed 15 degrees.

(3) *Range of stability.* Through an angle of 20 degrees beyond its position of equilibrium after flooding, an OSV must meet the following conditions:

- (i) The righting arm curve must be positive.
- (ii) The righting arm must be at least 4 inches.

(iii) Each submerged opening must be weathertight. (A tank vent fitted with a ball check-valve is weathertight.)

(4) *Progressive flooding.* Piping, ducts, or tunnels within the assumed extent of damage must be either—

- (i) Equipped with arrangements, such as stop check-valves, to prevent progressive flooding of the spaces with which they connect; or
- (ii) Assumed in the calculations required by paragraph (a) of this section to permit progressive flooding of the spaces with which they connect.

(f) *Buoyancy of superstructure.* For paragraph (a) of this section, the buoyancy of any superstructure directly above the side damage must be considered in the most unfavorable condition.

(2) The transverse watertight bulkhead has a step or a recess, which must be assumed damaged, if it is both more than 10 feet in length and located within the transverse extent of damage specified by Table 174.205(b) of this section.

(c) *Extent of damage.* For paragraph (a) of this section, damage must consist of penetrations having the dimensions specified by Table 174.205(b) of this section, except that, if the most disabling penetrations are smaller than the penetrations specified by the Table, damage must consist of the smaller penetrations.

(d) *Permeability of spaces.* For paragraph (a) of this section, the permeability of a floodable space must be as specified by Table 174.205(d) of this section.

(e) *Survival conditions.* An OSV is presumed to survive assumed damage if

it meets the following conditions in the final stage of flooding:

(1) *Final waterline.* The final waterline, in the final stage of sinkage, heel, and trim, must be below the lower edge of an opening through which progressive flooding may take place, such as an air pipe, a tonnage opening, an opening closed by a weathertight door or hatch-cover, or a tank vent fitted with a ball check-valve. This opening does not include an opening closed by a—

- (i) Watertight manhole-cover;
- (ii) Flush scuttle;
- (iii) Small hatch-cover for a watertight cargo-tank that maintains the high integrity of the deck;

(iv) Watertight door in compliance with § 174.210 of this subpart; or

(v) Side scuttle of the non-opening type.

(2) *Angle of heel.* The angle of heel must not exceed 15 degrees.

(3) *Range of stability.* Through an angle of 20 degrees beyond its position of equilibrium after flooding, an OSV must meet the following conditions:

- (i) The righting arm curve must be positive.
- (ii) The righting arm must be at least 4 inches.

(iii) Each submerged opening must be weathertight. (A tank vent fitted with a ball check-valve is weathertight.)

(4) *Progressive flooding.* Piping, ducts, or tunnels within the assumed extent of damage must be either—

- (i) Equipped with arrangements, such as stop check-valves, to prevent progressive flooding of the spaces with which they connect; or
- (ii) Assumed in the calculations required by paragraph (a) of this section to permit progressive flooding of the spaces with which they connect.

(f) *Buoyancy of superstructure.* For paragraph (a) of this section, the buoyancy of any superstructure directly above the side damage must be considered in the most unfavorable condition.

TABLE 174.205(b).—EXTENT OF DAMAGE

Collision Penetration	
Longitudinal extent (vessels with LBP not greater than 143 feet).	.1L or 6 feet, whichever is greater in length.
Longitudinal extent (vessels with LBP greater than 143 feet).	10 feet + .03L.
Transverse extent*	30 inches.

TABLE 174.205(b).—EXTENT OF DAMAGE—Continued

Vertical extent	From baseline upward without limit.
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*The transverse penetration applies inboard from the side of the vessel, at right angles to the centerline, at the level of the deepest loadline.

TABLE 174.205(d).—PERMEABILITY OF SPACES

Spaces and tanks	Permeability
Storerooms	60 percent.
Accommodations	95 percent.
Machinery	85 percent.
Voids and passage-ways.	95 percent.
Dry-bulk tanks	0(*) or 95 percent.
Consumable-liquid tanks.	0(*) or 95 percent.
Other liquid tanks	0(*) 0(**) or 95 percent.

*Whichever results in the more disabling condition.

**If tanks are partly filled, the permeability must be determined from the actual density and amount of liquid carried.

§ 174.210 Watertight doors in watertight bulkheads.

(a) This section applies to each OSV with watertight doors in bulkheads made watertight in compliance with this chapter.

(b) Except as provided by paragraph (c) of this section, each watertight door must comply with subpart H of part 170 of this chapter.

(c) A Class-1 door may be installed at any place if—

(1) The door has a quick-acting closing-device operative from both sides of the door;

(2) The door is designed to withstand a head of water equivalent to the depth from the sill of the door to the bulkhead deck or 10 feet, whichever is greater; and

(3) The OSV's pilothouse contains a visual indicator showing whether the door is open or closed.

(d) Each watertight door must be marked in compliance with § 131.893 of this chapter.

(e) If a Class-1 door is installed, the OSV's stability letter will require the master to ensure that the door is always closed except when being used for access.

§ 174.215 Drainage of weather deck.

The weather deck must have open rails to allow rapid clearing of water, or must have freeing ports in compliance with § 42.15-70 of this chapter.

§ 174.220 Hatches and coamings.

(a) Each hatch exposed to the weather must be watertight, except that the following hatches may be only weathertight:

(1) Each hatch on a watertight trunk that extends at least 17½ inches above the weather deck.

(2) Each hatch in a cabin top.

(b) Each hatch cover must—

(1) Have securing-devices; and

(2) Be attached to the hatch frame or coaming by hinges, captive chains, or other devices to prevent its loss.

(c) Each hatch that provides access to quarters or to accommodation spaces for crew members or offshore workers must be capable of being opened and closed from either side.

(d) Except as provided by paragraph (e) of this section, a weathertight door with a permanent watertight coaming at least 15 inches high must be installed for each opening in a deckhouse or companionway that—

(1) Gives access into the hull; and

(2) Is in an exposed place.

(e) If an opening in a deckhouse or companionway has a Class 1 watertight door installed, the height of the watertight coaming need only accommodate the door.

§ 174.225 Hull penetrations and shell connections.

Each overboard discharge and shell connection except an engine exhaust must comply with §§ 56.50-95 and 128.230 of this chapter.

Subpart H—Special Rules Pertaining to Liftboats

§ 174.240 Applicability.

Each liftboat inspected under Subchapter L of this chapter must comply with this subpart.

§ 174.245 General.

Each liftboat must comply with §§ 174.210 through 174.225.

§ 174.250 Unrestricted service.

Each liftboat not limited to restricted service must comply with Subpart C of this part in each condition of loading and operation.

§ 174.255 Restricted service.

This section applies to each liftboat unable to comply with § 174.250 and limited to restricted service as defined by § 125.160 of this chapter.

(a) *Intact stability.* (1) Each liftboat must be shown by design calculations to meet, under each condition of loading and operation afloat, the following requirements:

(i) Those imposed by § 174.045, given a “K” value of at least 1.4.

(ii) A range of positive stability of at least 10 degrees extending from the angle of the first intercept of the curves of righting moment and wind healing moment, either to the angle of the second intercept of those curves or to the angle of heel at which downflooding would occur, whichever angle is less.

(iii) A residual righting energy of at least 5 foot-degrees between the angle of the first intercept of the curves of righting moment and wind heeling moment, either to the angle of the second intercept of those curves or to the angle of heel at which downflooding would occur, whichever angle is less.

(2) For this section, each wind heeling moment must be calculated as prescribed by § 174.055 of this part using winds of 60 knots for normal conditions of operation afloat and of 70 knots for severe-storm conditions of operation afloat.

(3) For paragraph (a)(1) of this section, the initial metacentric height must be at least 1 foot for each leg position encountered while afloat including the full range of leg positions encountered while jacking.

(b) *Damaged stability.* (1) Each liftboat must be designed so that, while it is in each of its normal operating conditions, its final equilibrium waterline will remain below the lowest edge of any opening through which additional flooding can occur if the liftboat is subjected simultaneously to—

(i) Damage causing flooding described by paragraph (b)(4) of this section; and

(ii) A wind heeling moment calculated in compliance with § 174.055(b) using a wind speed of 50 knots.

(2) Each liftboat must have a means of closing off each pipe, ventilation system, and trunk in each compartment described by paragraph (b)(4) of this section if any part of the pipe, ventilation system, or trunk is within 30 inches of the hull.

(3) For compliance with paragraph (b)(1) of this section, no compartment on the liftboat may be ballasted or pumped out to compensate for the flooding described by paragraph (b)(4) of this section.

(4) For compliance with paragraph (b)(1) of this section, each compartment within 30 inches of the hull, excluding the bottom of the liftboat, between two adjacent main watertight bulkheads and the uppermost continuous deck or first superstructure deck where superstructures are fitted must be assumed subject to simultaneous flooding.

(5) In the calculations required by paragraph (b)(1) of this section, the

permeability of a floodable space must be as listed by Table 174.205(b).

(c) *On-bottom stability*. Each liftboat must be shown by design calculations to exert a continuous downward force on each footing when the vessel is supported on the bottom with footings and is subjected to the forces of waves, currents, and winds of 70 knots under normal conditions of operation, and winds of 100 knots under severestorm conditions of operation when elevated in a safe place, if this place is other than a harbor of safe refuge. Waves and currents must be appropriate for the winds and place.

§ 174.260 Freeboard.

(a) Each liftboat not required to obtain and maintain a loadline in compliance with subchapter E of this chapter must place markings on each side of the vessel amidships. These markings must each consist of a horizontal line 18 inches in length and 1 inch in height. The upper edges of the markings must be at a distance equal to the authorized freeboard measured vertically below the intersection of the continuation outwards of the upper surface of the weather deck and the outer surface of

the shell. This distance must be at least 24 inches.

(b) The markings required by paragraph (a) of this section may not be submerged in any condition of loading or operation.

PART 175—GENERAL PROVISIONS

12. The authority citation for part 175 continues to read as follows:

Authority: 46 U.S.C. 3306, 3703; 49 U.S.C. App. 1804; 49 CFR 1.45, 1.46; § 175.01-3 also issued under the authority of 44 U.S.C. 3507.

13. Section 175.05-2 is revised to read as follows:

§ 175.05-2 Applicability to offshore supply vessels.

(a) Offshore supply vessels of more than 15 but less than 100 gross tons, contracted for before March 15, 1996, are subject to inspection under this subchapter. Offshore supply vessels of more than 15 but less than 100 gross tons, contracted for on or after March 15, 1996, are subject to inspection under subchapter L of this chapter.

(b) Each OSV permitted grandfathering under paragraph (a) of this section must complete construction

and have a Certificate of Inspection by March 16, 1996.

14. Section 175.10-40 is revised to read as follows:

§ 175.10-40 Offshore supply vessel.

(a) An offshore supply vessel is a vessel that is propelled by machinery other than steam, that is of above 15 gross tons and of less than 500 gross tons, and that regularly carries goods, supplies, or equipment in support of exploration, exploitation, or production of offshore mineral or energy resources.

(b) An existing offshore supply vessel is one that was contracted for before March 15, 1996.

(c) A new offshore supply vessel is one contracted for on or after March 15, 1996.

Subpart 175.35—[Removed]

15. Subpart 175.35, consisting of § 175.35-1, is removed.

Dated: November 3, 1995.

Robert E. Kramek,

Admiral, U.S. Coast Guard Commandant.

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