



**U. S. SUPPLEMENT
TO**

**ABS RULES FOR BUILDING AND CLASSING
MOBILE OFFSHORE DRILLING UNITS
AND THE 1989 IMO MODU CODE**

**FOR UNITS
PARTICIPATING IN THE**

**UNITED STATES COAST GUARD ALTERNATE
COMPLIANCE PROGRAM**

**1 NOVEMBER 1998
REVISION 0**

AMERICAN BUREAU OF SHIPPING

MISSION STATEMENT

The mission of the American Bureau of Shipping is to serve the public interest as well as the needs of our clients by promoting the security of life, property and the natural environment, primarily through the development and verification of standards for the design, construction and operational performance of marine-related structures.

QUALITY POLICY

It is the policy of the American Bureau of Shipping to provide quality services in support of our mission and to be responsive to the individual and collective needs of our clients as well as those of the public at large. All of our client commitments, supporting actions and services delivered must be recognized as expressions of quality. We pledge to monitor our performance as an on-going activity and to strive for continuous improvement.

CONTENTS

AMERICAN BUREAU OF SHIPPING MISSION STATEMENT AND QUALITY POLICY

INTRODUCTION

SECTIONS

- I. USCG SUPPLEMENTAL REQUIREMENTS TO ABS RULES AND
1989 IMO MODU CODE**
- II. USCG REQUIREMENTS NOT ADDRESSED BY ABS RULES OR
1989 IMO MODU CODE**
- III. ACP SUPPLEMENT INITIAL 1989 IMO MODU CODE SURVEY
CHECK SHEET**
- IV. RECORD OF REVISIONS**

INTRODUCTION

Those who use this Supplement are asked to review the current American Bureau of Shipping (ABS) Rules for Building and Classing Mobile Offshore Drilling Units (hereinafter ABS MODU Rules). Please be aware of the "Scope and Conditions of Classification." This Supplement does not change the scope or conditions of ABS Classification. It is a reference document within the ABS Quality System. The Check Sheets contained in this Supplement are also for reference only and are not to be used in the performance of a Survey. The controlled Check Sheets are available through the normal distribution of controlled documents. The most recent revisions may be obtained from the ABS Surveyor-in-Charge.

As part of their regulatory reform initiative, the United States Coast Guard (USCG) established a task group consisting of USCG personnel and ABS Engineers to conduct a comparison of the applicable requirements contained within Title 46 of the United States (U.S.) Code of Federal Regulations (CFR) Subchapters "I-A", "F" and "G" to the similar applicable regulations contained in the International Maritime Organization (IMO) Code for the Construction and Equipment of Mobile Offshore Drilling Units (MODU), 1989 (hereinafter IMO MODU Code). The purpose of this effort was to identify redundancies and to determine if the IMO MODU Code would provide an equivalent level of safety to those regulations contained within 46 CFR Subchapters "I-A", "F" and "G". The CFR regulations were examined, and it was determined that many of the CFR requirements were satisfied by either the ABS MODU Rules alone, the IMO MODU Code alone, or a combination of these regulations.

The results of the task group's study is codified into this document titled "U.S. Supplement to ABS Rules for Building and Classing Mobile Offshore Drilling Units and 1989 IMO MODU Code." This Supplement identifies those USCG requirements that are in addition to the ABS Rules and the IMO MODU Code. This publication is intended to be used in lieu of 46 CFR Subchapters "I-A", "F" and "G" for plan review and inspections delegated to ABS by the USCG. The use of the U.S. Supplement is restricted to those MODUs that participate in the USCG's Alternate Compliance Program (ACP) with ABS. The procedures for enrollment in the ACP are addressed on Page 3 of this Introduction.

The Supplement is divided into four sections:

Section I contains supplemental requirements in areas where there exist ABS Rules or 1989 IMO MODU Code requirements for which the USCG has amplifying or additional requirements. For ease of reference, each of these cites is identified by the corresponding ABS Rule cite and IMO Code cite. If an ABS Rule cite or IMO Code cite is not applicable to the vessel under consideration, then the associated interpretation does not apply.

Section II contains supplemental requirements in areas not contained in the ABS Rules or 1989 IMO MODU Code for which the USCG has requirements.

Section III contains the ACP supplement survey check sheets.

Section IV contains the record of revisions commencing after *1 November 1998*.

There are specific cites within this document where U.S. domestic standards are specified as mandatory for certain systems, equipment or components. U.S. Federal law is one of the reasons why many items are mandatory. It is recognized that there exist alternative standards developed by regulatory bodies and industry, both internal and external to the United States, which would define systems, equipment or components that are equivalent to those being specified herein. To the extent authorized by the most recent revision of USCG Navigation and Vessel Inspection Circular No. 2-95, Change 1, as amended and supplemented, ABS is empowered to accept alternatives built to these international/industry standards and grant the requested equivalency.

In the normal course of technological advancement and application, it is entirely possible that new systems, equipment or components will be available for use onboard vessels covered by this program. In the event that existing design requirements are not applicable, it is incumbent on the owner, builder or designer to seek from ABS, as early as possible, a determination of the requirements which will be applied in such cases.

This document is the result of several years of review by ABS and the USCG. As noted above, the vision was to find common ground in their mutual missions of the protection of life and property at sea.

Under ACP, a voluntary program, the owner may elect to have ABS conduct surveys on existing vessels on behalf of the USCG. For new construction, a request is required from both the shipyard and the owner since enrollment in this program will influence both parties.

A MODU enrolled in the Alternate Compliance Program must satisfy all the requirements contained in the applicable sections of the ABS MODU Rules, the 1989 IMO MODU Code and this U.S. Supplement, prior to the issuance of an USCG Certificate of Inspection (COI).

PROCEDURES FOR ENROLLMENT AND PARTICIPATION IN ACP

The process for enrollment in ACP is defined in the USCG Marine Safety Manual, Volume II Chapter 32.

NEW CONSTRUCTION

For new construction, since the design, fabrication sequences, and construction cost may be affected by the intended enrollment of a proposed new construction in ACP by the owner, it is imperative that the shipyard and owner consult with ABS as early in the design phase as possible. It is prudent to discuss the proposed enrollment in depth as soon as possible to establish the basic fundamentals and administrative clarifications. Upon the completion of such a meeting, both the shipyard and the owner are to forward a written request to the Office In Charge of Marine Inspection (OCMI) to confirm their intentions. For the shipyard, a copy should be forwarded with the ABS Request for Classification Survey Details (Form A.B.122). For survey purposes, the owner is to forward a separate letter to the local ABS Office or Regional Office (Survey Manager) to confirm their intention regarding the enrollment of the vessel. While this will assist in the proper processing within ABS, it is very important to note that the application for enrollment in ACP is to be forwarded to the OCMI in accordance with NVIC 2-95, Change-1.

EXISTING VESSELS

With existing MODUs, the owner or operator applies for enrollment by submitting an Application for Inspection of U.S. Vessel (Form CG-3752) to the OCMI, indicating their desire to have their vessel participate in the program. The USCG will subsequently authorize the ABS Program Manager and the local ABS Survey Office to commence the ACP enrollment process. A "Hand Over Survey," discussed later in this text, will be scheduled at a mutually-convenient time. Upon completion of the Survey, the owner/operator will receive official notification from the USCG indicating the enrollment status.

RE-FLAGGING

For MODUs intending to re-flag to U.S. Flag, it is envisioned that this document will apply in a manner similar to other existing vessels. All re-flaggings require an initial meeting between the owner and USCG headquarters.

HOW TO WITHDRAW

In order to withdraw from ACP, the owner is to advise the USCG in writing. If this is agreeable to the USCG, all data applicable to the MODU during the time period the vessel was enrolled in the program will be forwarded to the USCG for incorporation into the USCG computer files. Upon accomplishment of the information transfer, the owner would then continue the required inspections directly under the jurisdiction of the USCG.

HAND OVER SURVEY

For existing MODUs, a "Hand Over Survey" must take place. The Survey is simply a time for the attending USCG and ABS staff to compare notes. The USCG will confirm that the history of the vessel has been properly entered into the ABS Status System. The USCG will also confirm to the ABS Surveyors that the vessel is in compliance with all CFRs or will advise on those areas that must be corrected. The ABS Surveyors and USCG Inspectors will agree on the resolution of any outstanding requirements and deficiencies. The Surveyor and the Inspector will then complete the ABS Record of Safety Equipment. The Record of Safety Equipment is to be a permanent part of the vessel's documents.

WHAT HAPPENS WITH THE CERTIFICATE OF INSPECTION?

An ACP MODU will still have a Certificate of Inspection on board. However, it will be distinctively different in that it will not contain details of life-saving appliances and fire-extinguishing equipment. The ABS Status will contain the major details of the vessel.

WHAT HAPPENS IF THE MODU IS DAMAGED?

It is the responsibility of the MODU's Offshore Installation Manager (OIM) to report Marine Damages, as defined in 46 CFR 4.03 to the cognizant USCG OCMI. ABS takes the lead in determining "Fitness to Proceed" and is obliged to share this information with the local OCMI. If the MODU poses a pollution threat to the environment, such as a Class I structural failure, the local OCMI will take precedence. This decision must be coordinated with the Surveyor in Charge.

REPORTABLE CASUALTY

A reportable marine casualty or accident means a casualty or accident involving any MODU within the navigable waters of the U.S., its territories or possessions, or any casualty or accident involving a U.S. Registered MODU anywhere in the world. This definition of marine casualty or accident does not pertain to public vessels. The definition is contained in 46 CFR 4.05-1 as follows:

NOTICE OF MARINE CASUALTY

Immediately after addressing all resultant safety concerns, the owner, agent, master, operator, or person in charge, shall notify the nearest Marine Safety Office or USCG Group Office whenever a vessel is involved in a marine casualty consisting of:

1. An unintended grounding, or an unintended strike of (collision with) a bridge;
2. An intended grounding, or an intended strike of a bridge, that creates a hazard to navigation, the environment, or the safety of a vessel, or that meets any criterion of paragraphs 3 through 7;
3. A loss of main propulsion, primary steering, or any associated component or control that reduces the maneuverability of the vessel;
4. An occurrence materially and adversely affecting the vessel's seaworthiness or fitness for service or route, including but not limited to fire, flooding, or failure of or damage to fixed fire-extinguishing systems, life-saving appliances, auxiliary power generating equipment, or bilge pumping systems;
5. A loss of life;
6. An injury that requires professional medical treatment (treatment beyond first aid) and, if the person is engaged or employed on board a vessel in commercial service, that renders the individual unfit to perform his or her routine duties; or
7. An occurrence causing property damage in excess of \$25,000 including the cost of labor and materials to restore the property to its condition before the occurrence, but not including the cost of salvage, cleaning, gas-freeing, drydocking, or demurrage.

HOW TO HANDLE THE FORM CG-835

The USCG issues their recommendations and deficiencies on a form numbered CG-835. It has become common usage to simply refer to the USCG outstandings and deficiencies as "835s". The local USCG offices will assist the ABS Surveyors by providing liaison with other USCG offices in dealing with CG-835s. The ABS Surveyor is not expected to communicate directly with a USCG office other than the one in his local area.

The 835 is under the control of the USCG office that did the inspection and wrote the requirements. ABS will be given copies of the 835s for inclusion on the ABS Status as an Outstanding Recommendation. ABS may survey and indicate that an 835 has been satisfactorily completed. This will be done by the writing of a miscellaneous report that receives normal distribution plus one additional copy for the USCG office that wrote the 835. It is the responsibility of the local OCMI to forward the 835 to the appropriate persons to cancel the 835 in the USCG files. ABS Surveyors may "clear" 835 items, on ACP vessels only. This may be done on other U.S. Registered Modus; however, it requires prior approval from the OCMI that issued the 835.

In those situations where compliance with an 835 has not been satisfied, the USCG office that issued the 835 must be contacted for further advice. This will be done through the OCMI at the port where the vessel is being surveyed. **It is important to note that the ABS Surveyor does not have the right to extend or modify the 835.**

NO SAIL ITEMS

"No Sail" items is a term normally applied by the USCG when the condition of a MODU is suspect or has deteriorated or has sustained excessive damages resulting in non-compliance or a deficiency with respect to the applicable regulations. ABS has the same processes, however, the ABS terminology differs. ABS defines "no sail" items in various sections of the ABS Process Instructions. ABS does not use the term "Seaworthy." The term used in ABS is "Fitness to Proceed." A MODU is not considered Fit to Proceed if it has suffered structural damage that affects the strength of the MODU or its watertight integrity. It also applies if the MODU has lost position holding ability, leg damage, propulsion, steering or electrical generation capacity, including redundant systems. Any of the foregoing would generate a report of non-compliance with the Rules and be listed as an "Outstanding Recommendation". Conversely, if the problem lies with IMO items, it would be listed as a "Deficiency." Deficiencies that would prevent a MODU from sailing or operating would be: (1) Loss of life-saving appliances such as lifeboats; (2) Lack of life-saving

appliances; (3) Failure of critical parts of the fire-extinguishing system. Examples of "No Sail" items are inoperable fire pumps or depleted fixed fire-extinguishing systems. On occasion an item that is a deficiency will also be an outstanding recommendation against Class. The emergency fire pump is such an item. The emergency fire pump is required both for Class and for the Safety Equipment Certificate to be issued and/or remain valid.

OUTSTANDING RECOMMENDATION (OSR)

This is the term used by ABS to define areas of noncompliance with the Rules. Classification is maintained by a series of Annual Surveys and Periodical Surveys that allow the Class Society an opportunity to survey a MODU and maintain a record of its compliance with the Rules. It also allows ABS to confirm that the owner is maintaining the MODU in a satisfactory condition. A single Outstanding may not necessarily affect the Class of the MODU. Consideration is given to allow time to make corrections, to move the MODU to a more appropriate location or to complete operations. A number of Outstanding Recommendations or a major Outstanding Recommendation may be sufficient to question the "fitness of the MODU to proceed or operate."

WHAT HAPPENS IF ANNUAL OR SPECIAL SURVEYS MUST BE EXTENDED?

ACP survey extensions must be processed through the Survey Manager Offshore, ABS Americas. The maximum survey extension will be three months and shall not alter the baseline date for the survey concerned. Except for the Special Surveys, all other surveys have grace periods (limited period of time) in which they are to be completed. A series of letters are sent to the owner advising of due dates and overdue dates. Provided there are no special circumstances to consider, the Class of the MODU is in jeopardy and will be canceled 90 days after the due date.

DRYDOCKING EXTENSIONS

Regardless of the circumstances, the USCG retains the ultimate authority for granting drydocking extensions to ACP MODUs. Under extenuating circumstances, ABS allows extensions of drydockings. The MODU must have no record of leg damage, or grounding since the last drydocking, and a Survey must be conducted. For a 30 day extension, a general examination of the MODU is conducted. For extensions of 31 days up to 90 days, a modified Under Water Survey In Lieu of Drydocking (UWILD) is required. In the modified survey a record of the examination is typically marked on photographs taken by a diver. Extensions of 91 days up to one year are normally done to allow the MODU's surveys to be harmonized with IMO requirements. A one year extension requires a full Under Water Survey in Lieu of Drydocking, including two-way voice and video communications between the Surveyor and the diver. It would be considered unusual to do a one year extension under any other circumstances.

UNDER WATER SURVEY IN LIEU OF DRYDOCKING

An ACP UWILD guide was developed for vessels enrolled in ACP. The Guide for Underwater Surveys In Lieu of Drydocking for Vessels Enrolled in the ABS Based USCG Alternate Compliance Program is now included in NVIC 2-95, Change 1.

OVERSIGHT

The USCG, in delegating surveys to ABS, still retains the ultimate responsibility that MODUs meet regulatory requirements. Crucial to fulfilling this responsibility is active and viable oversight by the USCG of surveys conducted by ABS on behalf of the USCG.

The foundation of this oversight is ABS's World Wide ISO 9001 Certified Quality System. As with any successful quality system, it is a smoothly functioning in-service process verification scheme. It provides a source of continuous and timely opinion related to the effectiveness of the processes in place to meet customer requirements. An added benefit is the information it provides to both clients and management to prove that controlled work is being accomplished. In this respect it is very important in facilitating the delegation of USCG vessel inspection to ABS. It provides a framework that will be used in the USCG oversight program for delegated responsibilities.

Oversight will consist of internal and external audits of ABS by the USCG. It will also consist of annual boardings of the MODUs to conduct renewal and mid-period COI inspections. The boardings will be similar to those done in Port State Inspections. A check sheet describing the considerations to expand the boardings is a part of the USCG Marine Safety Manual, Chapter 32.

I. USCG SUPPLEMENTAL REQUIREMENTS TO ABS RULES AND 1989 IMO MODU CODE

Cite: 33CFR 67.05	Obstruction Lights	I-1
Cite: 33CFR 164.35	Sounding Equipment	I-1
Cite: 46CFR 54	Air Receivers, Bulk Tanks, Tensioner Bottles and other Pressure Vessels	I-1
Cite: 46CFR 108.103	Equipment Not Required on a Unit (<i>Excess Equipment</i>)	I-1
Cite: 46CFR 108.131	Definitions (as applicable to Accommodation Spaces)	I-1
Cite: 46CFR 108.137	Structural Fire Protection	I-1
Cite: 46CFR 108.143	Accommodation Space	I-1
Cite: 46CFR 108.147	Prohibited Paint in Accommodation Space	I-1
Cite: 46CFR 108.170- 46CFR 108.177	Classified Locations and Electrical Installations in Classified Locations	I-1
Cite: 46CFR 108.185	Ventilation for Enclosed Classified Locations	I-2
Cite: 46CFR 108.187	Ventilation for Brush Type Electric Motors in Classified Spaces	I-2
Cite: 46CFR 108.201	Size of Sleeping Spaces	I-2
Cite: 46CFR 108.203	Berths and Lockers	I-2
Cite: 46CFR 108.205	Wash Spaces; Toilet Spaces; and Shower Space	I-2
Cite: 46CFR 108.207	Messrooms	I-3
Cite: 46CFR 108.209	Hospital Spaces	I-3
Cite: 46CFR 108.211	Miscellaneous Accommodation Spaces	I-3
Cite: 46CFR 108.213	Heating Requirements	I-3
Cite: 46CFR 108.215	Insect Screens	I-4
Cite: 46CFR 108.235	Helicopter Facilities - Construction Materials	I-4
Cite: 46CFR 108.237	Helicopter Facilities - Fuel Storage Facilities	I-4
Cite: 46CFR 108.239	Helicopter Facilities - Fuel Transfer Equipment	I-4
Cite: 46CFR 108.415- 46CFR 108.429	Fire Main System	I-4
Cite: 46CFR 108.431- 46CFR 108.437	Fitted Carbon Dioxide Fire Extinguishing Systems	I-5

Cite: 46CFR 108.486- 46CFR 108.489	Fire Protection for Helicopter Facilities	I-8
Cite: 46CFR 108.491- 46CFR 108.496	Hand Portable and Semi-portable Fire Extinguishing Systems	I-8
Cite: 46CFR 108.497	Fireman's Outfits	I-9
Cite: 46CFR 108.499	Fireman's Axes	I-9
Cite: 46CFR 108.503	Relationship to International Standards	I-9
Cite: 46CFR 108.540	Survival Craft Muster and Embarkation Arrangements	I-9
Cite: 46CFR 108.550	Survival Craft Launching and Recovery Arrangements: General	I-9
Cite: 46CFR 108.553	Survival Craft Launching and Recovery Arrangements using Falls and a Winch	I-9
Cite: 46CFR 108.580	Personal Lifesaving Appliances	I-10
Cite: 46CFR 108.597	Line Throwing Appliances	I-10
Cite: 46CFR 108.601	Cranes	I-10
Cite: 46CFR 108.665	Watertight Door Markings	I-10
Cite: 46CFR 108.701	Sounding Equipment	I-10
Cite: 46CFR 109.121	Operations Manual	I-10
Cite: 46CFR 170.185	Stability Test Preparation	I-11
Cite: 46CFR 170.210	Inclining Test	I-11
Cite: 46CFR 174.040	Stability Requirements	I-11
Cite: 46CFR 174.045	Restricted Service Severe Storm Condition	I-11
Cite: 46CFR 174.050	Stability on Bottom	I-11
Cite: 46CFR 174.065	Damage Stability Requirements	I-11
Cite: 46CFR 174.080	Flooding on SEDU's	I-11
Cite: 46CFR 174.100	Appliances for Watertight and Weathertight Integrity	I-12
Cite: 46CFR 197 Subpart B	Diving Systems	I-12
Cite: 46CFR 199.290	Stowage of Survival Craft	I-12
Cite: NVIC 9-97	Steel Ducting (Gauge of Steel)	I-12

I. USCG SUPPLEMENTAL REQUIREMENTS TO ABS RULES AND 1989 IMO MODU CODE

Cite: 33CFR 67.05 Obstruction Lights (IMO CODE Cite: 14.7.2)

IMO requires compliance with Coastal State Regulations. USCG states specific requirements as Coastal State.

Cite: 33CFR 164.35 Sounding Equipment (IMO CODE Cite: SOLAS V/12(k))

Each self-propelled unit must have a mechanical or electronic sounding apparatus.

Cite: 46CFR 54 Air Receivers, Bulk Tanks, Tensioner Bottles and other Pressure Vessels (IMO CODE Cite: 4.1.3)

Boilers, pressure vessels and heat exchangers are to comply with the requirements specified in Section 4/2 of the ABS Rules for Building and Classing Steel Vessels or the ASME Code. Boilers, pressure vessels and heat exchangers manufactured to any other standard will be considered on a case-by-case basis.

Cite: 46CFR 108.103 Equipment Not Required on a Unit (Excess Equipment) (IMO CODE Cite: Chapters 9 & 10) (ABS Rule Cite: 4/4)

Each item of lifesaving and fire fighting equipment carried on board the unit in addition to equipment required to be on board is to be approved or be acceptable to the cognizant OCMI for use on the unit.

Cite: 46CFR 108.131 Definitions (IMO CODE Cite: Table 9.1)

UCCG considers a corridor to be an accommodation space.

Cite: 46CFR 108.137 Structural Fire Protection (IMO CODE Cite: Table 9.1) (ABS Rule Cite: Table 3/11.1)

USCG provides the specific guidance on SFP in NVIC 9-97.
Bulkhead separating accommodation space from pantry should be class "A".
Bulkhead separating accommodation space from any store should be class "A".

Cite: 46CFR 108.143 Accommodation Space (Sleeping, Mess, Hospital, Recreational, Toilet, Washing and Shower Spaces) (IMO Code Cite: 9.2.9)

Except in wash rooms and toilet spaces, each deck covering must be made of an approved material, except an overlay that is no more than 9.375 mm thick.

Cite: 46CFR 108.147 Prohibited Paint in Accommodation Spaces (IMO CODE Cite: Table 9.2.10) (ABS Rule Cite: Table 3/11.5.10)

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

Cite: 46CFR 108.170- Classified Locations and Electrical Installations in Classified Locations 46CFR 108.177 (IMO CODE Cite: Chapter 6) (ABS Rule Cite: 4/1.7 and 4/3B5)

An enclosed space that has direct access to a Zone 1 location can be considered non-hazardous if the access has self-closing gas-tight doors forming an air lock. Ventilation and alarms are to comply with ABS/IMO requirements. Note,

other options from ABS MODU Rules and IMO MODU Code that permit a space to be considered safe when it has direct access to a Zone 1 location are not acceptable.

Electrical equipment and devices installed in spaces adjacent to hazardous areas and made safe by complying with the reference ABS and IMO cites is to be limited to only essential equipment

Refer to Section I, Cite 4/5B7 of the ABS Supplement to ABS Rules for Steel Vessels for Vessels on International Voyages for additional requirements relative to electrical installations in hazardous areas.

**Cite: 46CFR 108.185 Ventilation for Enclosed Classified Locations (IMO CODE Cite: 6.4)
(ABS Rule Cite: 4/1.9.2)**

Each ventilation unit is to have alarms that are powered independently of the ventilation motor power and control circuitry and sound at a continuously manned station when the ventilation system for the space is not working

Each ventilation system for enclosed classified locations is to provide a complete change of air every five minutes (12 air changes per hour).

**Cite: 46CFR 108.187 Ventilation for Brush Type Electric Motors in Classified Spaces
(IMO CODE Cite: 6.6) (ABS Rule Cite: 4/3B5.3.3)**

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

Cite: 46CFR 108.201 Size of Sleeping Spaces (IMO: International Labor Organization)

Minimum deck area and volume per man in sleeping quarters are 2.8m² and 6m³ respectively.

Cite: 46CFR 108.203 Berths and Lockers (IMO: International Labor Organization)

Each locker should be at least 300 in² and 5 ft tall.

For the sleeping quarters, each berth is required to be at least 1' from the deck. If berths are on top of each other, the distance between them should be at least 2'6". If adjacent to each other, the required distance is 1'6".

Cite: 46CFR 108.205 Wash Spaces; Toilet Spaces; and Shower Spaces (IMO: International Labor Organization)

- (a) For the purposes of this section-
- (1) "Private facility" means a toilet, washing or shower space that is accessible only from one single or double occupancy sleeping space;
 - (2) "Semi-private facility" means a toilet, washing or shower space that is accessible from either of two one-to-four person occupancy sleeping spaces; and
 - (3) "Public facility" means a toilet, washing or shower space that is not private or semi-private.
- (b) Each private facility must have one toilet, one shower, and one washing basin, all of which may be in a single space.
- (c) Each semi-private facility must have at least one toilet and one shower, which may be in one space.
- (d) Each room adjoining a semi-private facility must have a wash basin if a wash basin is not installed in a semi-private facility.
- (e) Each unit must have enough public facilities to provide at least one toilet, one shower and one wash basin for each eight persons who occupy sleeping spaces that do not have private or semi-private facilities.
- (f) Urinals may be installed in toilet rooms, but no toilet as required in this section may be replaced by a urinal.
- (g) Each public toilet space and washing space must be convenient to the sleeping space that it serves.

- (h) No public facility may open into any sleeping space.
- (i) Each wash basin, shower and bathtub must have hot and cold running water.
- (j) Adjacent toilets must be separated by a partition that is open at the top and bottom for ventilation and cleaning.
- (k) Public toilet facilities and shower facilities must be separated.
- (l) Each public facility that is a toilet space must have at least one wash basin unless the only access to the toilet space is through a washing space.
- (m) Each toilet must have an open front seat.
- (n) Each washing space and toilet space must be so constructed and arranged that it can be kept in a clean and sanitary condition and the plumbing and mechanical appliances kept in good working order.
- (o) Wash basins may be located in sleeping spaces.

Cite: 46CFR 108.207 Mess Rooms (IMO: International Labor Organization)

- (a) Each mess room that is not adjacent to the galley that serves it must be equipped with a steamtable.
- (b) Each mess room must seat the number of persons expected to eat in the mess room at one time.

Cite: 46CFR 108.209 Hospital Spaces (IMO: International Labor Organization)

- (a) Each unit carrying twelve or more persons on a voyage of more than three days must have a hospital space.
- (b) Each hospital space must be suitably separated from other spaces.
- (c) No hospital space may be used for any other purpose, when used for care of the sick.
- (d) An entrance to each hospital space must be wide enough and arranged to readily admit a person on a stretcher.
- (e) Each berth in a hospital space must be made of metal.
- (f) Each upper berth must be hinged and arranged so that it can be secured clear of the lower berth.
- (g) Each hospital space must have at least one berth that is accessible from both sides.
- (h) Each hospital space must have one berth for every 12 persons or portion thereof on board, who are not berthed in single occupancy rooms, but the number of berths need not exceed six.
- (i) Each hospital space must have a toilet, washbasin, and bathtub or shower accessible from the hospital space.
- (j) Each hospital space must have clothes lockers, a table, and seats.

Cite: 46CFR 108.210 Hospital Space Not Required (IMO: International Labor Organization)

- (a) The hospital space required under 108.209 is not required on a unit if one single or double occupancy sleeping space, designated and equipped as a treatment or isolation room or both is available for immediate medical use, and has-
 - (1) An entrance that is wide enough and arranged to readily admit a person on a stretcher.
 - (2) A single berth or examination table that is accessible from both sides; and
 - (3) A wash basin in or immediately adjacent to it.

Cite: 46CFR 108.211 Miscellaneous Accommodation Spaces (IMO: International Labor Organization)

- (a) Each unit must have enough facilities for personnel to wash their own clothes, including at least one tub or sink that has hot and cold running water.
- (b) Each unit must have enough equipment or space for the personnel to dry their own clothes.
- (c) Each unit must have an accommodation space that can be used for recreation.

Cite: 46CFR 108.213 Heating Requirements (IMO: International Labor Organization)

- (a) Each accommodation space must be heated by a heating system that can maintain at least 20 degrees C (68 degrees F).
- (b) Radiators and other heating apparatuses must be constructed, located or shielded as to avoid risk of-
 - (1) Fire
 - (2) Danger; and
 - (3) Discomfort to the occupants of each accommodation space.

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

Cite: 46CFR 108.215 Insect Screens (IMO: International Labor Organization)

- (a) Accommodation spaces must be protected against the admission of insects.
 (b) Insect screen must be installed when natural ventilation is provided.

**Cite: 46CFR 108.235 Helicopter Facilities - Construction (IMO CODE Cite: 13.2)
 (ABS Rule Cite: Table 3/5.3.2)**

- (a) Each helicopter deck must be designed to accommodate the loadings (static and dynamic) imposed by operation and stowage of helicopters intended to use the facility as well as environmental loadings (wind, wave, water, snow, etc.) anticipated for the unit.
 (b) The adequacy of each helicopter deck for the loadings required in paragraph (a) of this section must be shown by design calculations. Where the placement of a load affects the suitability of a structural member, the load must be evaluated in the most unfavorable position for each member.
 (c) The analysis required in paragraph (b) of this section must be based in the dead load of the structure, existing stresses in the deck when it is an integral part of a unit's structure, and each of the following loading conditions:
 (1) As per ABS MODU Rules
 (2) As per ABS MODU Rules
 (3) *Stowed helicopter loading.* The helicopter maximum weight plus inertial forces from the helicopter due to anticipated unit motions and applicable environmental loadings, including wind loads.

**Cite: 46CFR 108.237 Helicopter Facilities - Fuel Storage Facilities (IMO CODE Cite: 9/11)
 (ABS Rule Cite: Table 4/2.73)**

Helicopter fuel storage tanks that are non-integral with the hull are to be either a Marine Portable Tank complying with 46 CFR 64 if built prior to 1 May 1991 or an IM 107 tank complying with 49 CFR 178.270 if built after 1 May 1991.

**Cite: 46CFR 108.239 Helicopter Facilities - Fuel Transfer Facilities (IMO CODE Cite: 9/11)
 (ABS Rule Cite: Table 4/2.73)**

Each nozzle installed in a Helicopter Fueling System is to be a "deadman" type.

A helicopter fueling pump shutoff is to be provided at each of the required access routes to the helicopter deck.

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

Each hose in a Helicopter Fueling System is to have a storage reel, be fitted with a static grounding device and meet chapter 3 "Aircraft Fueling Hose" of National Fire Protection Association Standard for Aircraft Fuel Servicing (NFPA 407-1975).

**Cite: 46CFR 108.415- Fire Main System Facilities (IMO CODE Cite: 9.4)
 46CFR 108.429 (ABS Rule Cite: 4/4.7 to 4/4.11)**

Fire Main Systems (Fire Pumps, Piping, Hydrants, Hoses and Nozzles)

Each fire pump in a fire main system is to be fitted with a pressure gauge on its discharge side.

If a fire pump is used in a system other than the fire main, except for branch lines connected to the fire main for deck washing, each pipe connecting the other system is to be connected to the pump discharge through a shutoff valve at the manifold near the pump. If the pump pressure exceeds the pressure referenced in 4/4.7.6 of the ABS MODU Rules, a

reducing station and an additional pressure gauge is to be fitted in the pipe leading from the discharge manifold to other parts of the fire main. When a reducing station is fitted, the required relief valve and additional pressure gauge are to be located on the discharge side of the reducing station.

In a main machinery space, except a shaft alley with no assigned area for storage of combustibles, the jets of water required by 4/4.11.1 of the ABS MODU Rules are both to be from single lengths of hose and each must be from a separate outlet.

Outlets from fire hydrants are not to point above the horizontal.

Fire hoses are to be of 1½ or 2½ inch nominal diameter and be 50 feet in length. Fire hoses must be lined commercial fire hose that meets Standard 19 of Underwriters' Laboratories Inc., (1971 edition) or Federal Specification ZZ-H-451f. Each fire hose coupling is to be made of brass, bronze or a material with corrosion resistant properties equivalent to brass and bronze. Couplings are to have 9 National Standard Fire hose Coupling (NSFC) threads per inch for 1½ inch hose and 7½ NSFC threads per inch for 2½ inch hose.

Fire hose nozzles are to be USCG approved under 46 CFR 162.027. Nozzles previously approved under 46 CFR 162.027 are to be provided with low velocity fog applicators also approved under 46 CFR 162.027 when installed in machinery spaces containing oil fire boilers, internal combustion machinery or oil fuel units.

Fire main piping and hydrants are to be installed, as far as practicable, in locations that are not exposed to damage by materials that are moved on or onto the deck.

Cite: 46CFR 108.431- Fixed Carbon Dioxide Fire Extinguishing Systems Facilities
46CFR 108.437 (IMO: SOLAS II-2/5, II-2/5.2, II-2/13 and II-2/13.2)
 (ABS Rule Cite: 4/4.15 and 4/4.23.1)

Gaseous Type Fixed Fire Extinguishing Systems

Fixed gas fire extinguishing systems must be approved equipment.

The fixed extinguishing system must comply with the manufacturer's approved Design, Installation, Operation and Maintenance Manual that meets Chapter II-2, Regulation 5.2 of SOLAS and the following supplemental requirements:

Quantity, Pipe Sizes and Discharge Rate

In dry cargo spaces, the number of kilograms of carbon dioxide required for each space shall be equal to the gross volume of the space in cubic meters divided by 1.873. The gross volume includes trunks extending from the space; however, tonnage openings may be considered sealed. Branch lines to various cargo holds and 'tween decks shall be sized as to ensure a uniform distribution over the space protected.

For CO₂ systems installed for enclosed ventilation systems of rotating electrical propulsion equipment, the number of kilograms of carbon dioxide required for the initial charge shall be equal to the gross volume of the system divided by 0.624 for systems having a volume of less than 57 cubic meters, and divided by 0.749 for systems having a volume of 57 cubic meters or more.

The piping for the initial charge shall be sized as to ensure a uniform distribution over the space protected, and the discharge of the required amount shall be completed within 2 minutes.

For CO₂ systems installed for enclosed ventilation systems of rotating equipment, in addition to the above there shall be sufficient carbon dioxide available to permit delayed discharges of such quantity as to maintain at least a 25% concentration until the equipment can be stopped. If the initial discharge is such as to achieve this concentration until the equipment is stopped, no delayed discharge need be provided.

For machinery spaces, tanks, pumprooms, paint lockers and similar spaces, any fixed gas fire extinguishing system used to protect these spaces must comply with the requirements of SOLAS Chapter II-2, Regulation 5.

For spaces specially suitable for vehicles, any fixed gas fire extinguishing system used to protect these spaces must comply with the requirements of SOLAS Chapter II-2, Regulation 53.2.2.

Controls

If the same cylinders are used to protect more than one space, a manifold with normally closed stop valves shall be used to direct the carbon dioxide into the proper space. If the cylinders are used to protect only one space, a normally closed stop valve shall be installed between the cylinders and the space except for systems for protection of machinery spaces, pumprooms, paint lockers and similar space which contain not more than 130 kilograms of carbon dioxide.

Distribution piping to dry cargo spaces shall be controlled from not more than two stations. One of the stations controlling the system for the main machinery space shall be located as convenient as practicable to one of the main escapes from the space. All control stations and the individual valves and controls shall be distinctly marked to indicate the compartments or parts of the vessel to which they lead.

Systems for protection of machinery spaces, pumprooms, paint lockers and similar spaces shall be actuated at each station by one control operating the valve to the space and a separate control releasing at least the required amount of carbon dioxide. These two controls shall be located in a box or other enclosure clearly identified for the particular space. Systems installed without a stop valve shall be operated by one control releasing at least the required amount of carbon dioxide.

Where provisions are made for the simultaneous release of a given amount of carbon dioxide by operation of a remote control, provisions shall also be made for manual control at the cylinders. Where gas pressure from pilot cylinders is used as a means for releasing the remaining cylinders, not less than two pilot cylinders shall be used for systems consisting of more than two cylinders. Each of the pilot cylinders shall be capable of manual control at the cylinder, but the remaining cylinders need not be capable of individual manual control.

Systems for machinery spaces, pumprooms and similar type spaces, which are of more than 130 kilograms of carbon dioxide shall be fitted with an approved delayed discharge so arranged that an approved audible alarm will be automatically sounded for at least 20 seconds before the carbon dioxide is released into the space. Such systems of not more than 130 kilograms of carbon dioxide shall also have a similar delayed discharge, except for spaces which have a suitable horizontal escape. The alarm shall depend on no source of power other than the carbon dioxide. In systems where an alarm is required, the alarm shall be conspicuously and centrally located. Adjacent to all carbon dioxide extinguishing alarms there shall be conspicuously marked: "WHEN ALARM SOUNDS VACATE AT ONCE. CARBON DIOXIDE BEING RELEASED."

All distribution valves and controls shall be approved equipment. All controls shall be suitably protected.

On systems in which the CO₂ cylinders are not within the protected space the instructions shall also include a schematic diagram of the system and instructions detailing alternate methods of discharging the system should the manual release or stop valve fail to operate. Each control valve to a branch line shall be marked to indicate the space served.

If the space or enclosure containing the CO₂ supply or controls is to be locked, a key to the space or enclosure shall be in a break-glass type box conspicuously located adjacent to the opening.

Piping

The piping, valves and fittings shall have a bursting pressure of not less than 41370 kPa (6000 psi).

All piping, valves and fittings of ferrous materials shall be protected inside and outside against corrosion unless specifically approved otherwise.

Installation test requirements are as follows:

Upon completion of the piping installation, and before the cylinders are connected, a pressure test in accordance with the manufacturer's Design, Installation, Operation, and Maintenance Manual shall be conducted. Only CO₂ or other inert gas shall be used for this test.

Carbon Dioxide Storage

All cylinders used for storing carbon dioxide must be fabricated, tested, and marked in accordance with 46 CFR 147.60 and 46 CFR 147.65 or equivalent foreign standards accepted by the USCG as determined by ABS.

Discharge Outlets

Discharge outlets shall be listed or approved by an independent testing laboratory.

Enclosure Openings

In all spaces protected by a carbon dioxide system, except cargo spaces, stopping of the ventilating fans is to be automatically actuated upon operation of the carbon dioxide system. This will not be required where the carbon dioxide system is a secondary system in addition to another approved primary system protecting the space.

Pressure Relief

Where necessary, relatively tight compartments such as refrigeration spaces, paint lockers, etc., shall be provided with suitable means for relieving excessive pressure accumulating within the compartment when the carbon dioxide is injected.

Markings

CO₂ fire smothering apparatus shall be marked "CO₂ FIRE APPARATUS" in not less than 50 mm (2 in) red letters.

Fire Detection Systems

Fire detection systems must be approved equipment.

A conductor must not be used as a common return from more than one zone.

Each connection box that has conductors for more than one zone must be watertight.

There must be at least two sources of power for the electrical equipment of each fire detecting and alarm system. The normal source must be the main power source. The other source must be the emergency power source or an automatically charged battery. Upon loss of power to the system from the normal source, the system must be automatically supplied from the other source.

The capacity of each system's storage battery must be sufficient to supply the fire detecting and alarm system for a period of not less than one week without recharging. At the end of the one week discharge period, the battery potential must not be less than 80 percent of nominal potential under design load.

The capacity of each branch circuit providing power to a fire detection or alarm system must not be less than 125 percent of the maximum load.

Each fire detecting zone must not include spaces on more than one deck, except:

- (a) Adjacent and communicating spaces on different decks in the ends of the vessel having a combined ceiling area of not more than 279 m² (3000 square feet).
- (b) Isolated rooms or lockers in such spaces as mast houses, wheelhouse top, etc., which are easily communicable with the area of the fire-detecting circuit to which they are connected.

(c) Systems with indicators for individual spaces.

The fire detecting zone must not contain more than 50 protected rooms or spaces.

The system must visually indicate the zone in which the alarm originated.

The detectors, the detecting cabinet and alarms must be of an approved type.

The fire detecting system must be used for no other purpose, except it may be incorporated with the manual alarm system.

A framed chart or diagram must be installed in the wheelhouse or control station adjacent to the detecting cabinet indicating the location of the detecting zones and giving operating instructions.

Fixed fire detection and fire alarm systems – Installation requirements

A sufficient number of call points must be employed such that a person escaping from any space would find an alarm box convenient on the normal route of escape.

The manual alarm system must be used for no other purpose, except it may be incorporated with the fire detecting system.

Manual fire alarm boxes shall be clearly and permanently marked "IN CASE OF FIRE BREAK GLASS" in at least 12.5 mm (1/2 in) letters.

Detector spacing shall be in accordance with the manufacturer's recommendation. Detector spacing in spaces with ceilings greater than 3 m (10 ft) must be corrected in accordance with NFPA 72E.

Cite: 46CFR 108.486- Fire Protection for Helicopter Facilities (IMO CODE Cite: 9.11)
46CFR 108.489 (ABS Rule Cite: 4/4.35)

Fire Protection for Helicopter Decks and Refueling Facilities

If protein foam is used for protection of the helicopter deck and /or refueling facilities, the design rate is to be 6.52 liters per minute for each square meter (0.16 GPM for each square foot) of the required coverage area for five minutes.

A foam system protecting the helicopter deck is to be capable of discharging from each hose at 7 kg/in² (100 psi) a single foam stream at a rate of 340 liters (90 gallons) per minute and a foam spray at a rate of 190 liters (50 gallons) per minute.

A helicopter deck foam system is to have its operating controls at each of its hose locations. It is to be protected from icing and freezing and be capable of operation within 10 seconds after activation of its controls.

The foam hoses at each of the two helicopter deck accesses are to be reel mounted and long enough to cover any point on the helicopter deck. Each hose is to be provided with a foam nozzle that has foam stream, foam spray and off positions.

If the same foam system is used to protect the helicopter deck and the fueling facility, the quantity of foam agent provided is to be sufficient to protect both areas.

Cite: 46CFR 108.491- Hand Portable and Semi-portable Fire Extinguishing Systems Facilities (IMO CODE Cite: 9.6)
46CFR 108.496 (ABS Rule Cite: 4/4.21, Tables 4/4.1 and 4/4.2)

Fire extinguishers must be approved equipment.

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

Spare charges for 50% of the required hand portable extinguishers that are rechargeable by on board personnel are to be maintained on the unit. For extinguishers that cannot be recharged by personnel on board the unit, at least one spare extinguisher for each classification and variety is to be maintained on the unit.

The frame or support for each size III, IV and V fire extinguisher required, except a wheeled size V extinguisher for the helicopter deck, must be welded or otherwise permanently attached to the bulkhead or deck.

Each wheeled size V extinguisher required for the helicopter deck and each wheeled size III, IV and V extinguisher that is not required by Table 4/4.2 of the ABS MODU Rules, must be securely stowed when not in use to prevent them from rolling out of control under heavy sea conditions.

Cite: 46CFR 108.497 Fireman's Outfits (IMO CODE Cite: 9.9)

Lifeline materials: Bronze wire rope, inherently corrosion resistant steel wire rope, or galvanized or tinned steel wire rope.

Lifeline length and strength: Length of 15.2 meters (50 feet) with a minimum breaking strength of 680 kilograms (1,500 pounds)

Explosion meter An oxygen explosive meter UL listed.

Lifeline connection hardware: Each end is to be fitted with a hook with a 16 millimeters (5/8 inch) throat opening for the keeper.

Cite: 46CFR 108.499 Fireman's Axes (IMO CODE Cite: 9.9)

Each unit must have at least two (2) fire axes.

Cite: 46CFR 108.503 Life Saving Equipment (IMO CODE Cite: 10.6)

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

Cite: 46CFR 108.540 Survival Craft Muster and Embarkation Arrangements (IMO CODE Cite: 10.6)

Means must be provided for bringing each davit-launched survival craft against the side of the unit and holding it alongside to allow persons to be safely embarked in the case of a survival craft intended to be boarded over the edge of the deck; and safely disembarked after a drill in the case of a survival craft not intended to be moved to the stowed position with a full complement of persons on board.

Cite: 46 CFR 108.550 Survival Craft Launching and Recovery Arrangements: General

Lifeboats and launching appliances may be of aluminum construction only if the stowage location is protected by a water spray system meeting the requirements of 46CFR34.25.

Cite: 46CFR 108.553 Survival Craft Launching and Recovery Arrangements using Falls and a Winch (IMO CODE Cite: 10.6.13)

The lowering speed for a survival craft loaded with all of its equipment must be not less than 70 percent of the speed required under 46 CFR 108.553 paragraph (g).

46 CFR 108.553 paragraph (g).

The lowering speed for a fully loaded survival craft must be not less than that obtained from the following formula:

- (1) $S=0.4+(0.02 H)$, where S is the speed of lowering in meters per second, and H is the height in meters from the davit head to the waterline at the lightest seagoing condition, with H not greater than 30, regardless of the lowering height.
- (2) $S=79+(1.2 H)$, where S is the speed of lowering in feet per minute, and H is the height in feet, with H not greater than 99.

The lowering speed for a fully loaded survival craft must be not more than 1.3 meters per second (256 feet per minute).

Cite: 46CFR 108.580 Personal Lifesaving Appliances (IMO CODE Cite: 10.11)

The lifejackets must be readily accessible.

Where, due to the particular arrangements of the unit, the required lifejackets could become inaccessible, the OCMI may require an increase in the number of lifejackets to be carried, or suitable alternative arrangements.

Each lifejacket must have a lifejacket light approved under approval series 161.112 securely attached to the front shoulder area of the lifejacket. On a unit not in international service, a light approved under approval series 161.012 may be used. However, lifejacket lights bearing approval number 161.012/2/0 are not permitted on units certificated to operate on waters where the water temperature may drop below 10 deg.C (50 deg.F).

Cite: 46 CFR 108.597 Line Throwing Appliances

With each line-throwing appliance, an auxiliary line must be kept that meets the following:

- (i) Has a breaking strength of at least 40 kN (9,000 pounds-force);
- (ii) Is, if synthetic, a dark color or certified by the manufacturer to be resistant to deterioration from ultraviolet light; and
- (iii) Is—
 - (a) At least 450 meters (1500 feet) long, if the line-throwing appliance is approved under approval series 160.040; or
 - (b) At least 150 meters (500 feet) long, if the line-throwing appliance is approved under approval series 160.031.

Cite: 46CFR 108.601 Cranes (IMO CODE Cite: 12.1) (ABS Rule Cite: Guide for Cranes)

Crane design must meet the American Petroleum Institute (API) document API 2C, with Supplement 2. IMO defers to the Administration.

Cite: 46CFR 108.665 Watertight Door Markings (IMO CODE Cite: 3.6.3.2.1)

Each watertight door, scuttle, and hatch, required for watertight integrity, which may be opened during normal operations must be marked in letters of contrasting color to the background "Keep Closed".

Cite: 46CFR 108.701 Sounding Equipment (IMO: SOLAS V/12(k))

Each self-propelled unit must have a mechanical or electronic sounding apparatus.

Cite: 46CFR109.121 Operations Manual (IMO CODE Cite: 14.1) (ABS Rule Cite: Table 1/1.11)

Operations Manual is to also include the following:

Major Dimensions of Unit, Tonnages, Dry Bulk Capacities, Standard to which designed, hook load capacity, rotary capacity, helicopter maximum deadweight (lbs & kg), helicopter rotor size (feet & meters), cross-flooding valve locations, progressive flooding valve location, guidance on avoidance of structural damage, evacuating procedures, emergency shutdowns list.

The manual is to include the following plans: mechanical, ventilation, and electrical emergency shutdowns, flooding alarms and fire & gas detectors, access to compartments and decks.

Cite: 46CFR 170.185 Stability Test Preparation (IMO CODE Cite: 3.5.10)

USCG provides specific requirements for test procedures to be submitted for approval.

Cite: 46CFR 170.210 Inclining Test Requirements (IMO CODE Cite: 3.1)

USCG and IMO require periodic deadweight surveys for CSDU's. For IMO, if the difference between the calculated and observed lightship displacements are in excess of 1% of the operating displacement, an inclining test is required. For USCG, if the increase of the lightweight displacement since the last inclining test exceeds 3% of the lightweight displacement; or, if the difference between the calculated and observed lightship displacements are in excess of 2% of the lightweight displacement, an inclining is required.

Cite: 46CFR 174.040 Stability Requirements (IMO CODE Cite: 3.3)

Each unit must be designed to have at least 2 inches (50mm) of positive metacentric height in the upright position for the full range of drafts.

**Cite: 46CFR 174.045 Intact Stability Requirements
for Restricted Service and Severe Storm Conditions (IMO CODE Cite: 3.2.4)
(ABS Rule Cite: 4/2.51.1)**

Restricted Service. The USCG has no provision for a "Restricted Service" (50 knot wind) standard.

Severe Storm Condition. The unit must be able to change from any normal operating condition to severe storm condition within a minimum period of time as specified in Operation Manual. ABS requires that piping systems be sized such that all draft changes can be made within a maximum of 3 hours. IMO requires similar, except if it can be shown that the unit is operating in an area where it will not encounter severe storms.

Cite: 46CFR 174.050 Stability on Bottom (IMO CODE Cite: 3.4.1)

The mat, or each footing, must continually exert a downward force when subject to combined environmental loads. ABS requires sufficient downward loadings to withstand overturning moments.

Cite: 46CFR 174.065 Damage Stability Requirements (IMO CODE Cite: 3.4.3)

USCG requires damage stability be met for normal operating and severe storm conditions. ABS and IMO require for normal operating and transit conditions.

Cite: 46CFR 174.080 Flooding of SEDU's (IMO CODE Cite: 3.5.5)

If fitted with a mat, USCG requires all compartment of the mat to be subject to individual flooding. IMO requires mat flooding as for the main hull, with no simultaneous flooding of mat and hull. ABS requires extent of flooding for the mat as for the main hull, with simultaneous flooding of mat and hull if the mat is within 1.5 meters of the waterline, and less than 1.5 meters horizontally from the edge of the hull.

Cite: 46CFR 174.100 Appliances for Watertight and Weathertight Integrity
(IMO CODE Cite: 3.6.4 & 3.6.5) (ABS Rule Cite: 3/3.9)

If a unit is equipped with sliding watertight doors, each sliding watertight door must -

- (a) Be designed, constructed, tested and marked in accordance with ASTM F-1196;
- (b) Have controls in accordance with ASTM F-1197, except that a remote manual means of closure, as specified in paragraphs 7.1 and 7.5.1, and a remote mechanical indicator, as specified in paragraph 7.5.2 will not be required; and
- (c) If installed in a subdivision bulkhead, meet Supplemental Requirements Nos. S1 and S3 of ASTM F-1196 unless the watertight doors are built in accordance with plans previously approved by the United States Coast Guard, in which case only Supplemental Requirements Nos. S1 and S3.1.4 of ASTM F-1196 must be met. In either case, control systems for watertight doors must have power supplies, power sources, installation tests and inspection, and additional remote operating consoles in accordance with Supplemental Requirements Nos. S1 through S4 of ASTM F-1197.

Cite: 46CFR 197 Subpart B Diving Systems (IMO CODE Cite: 14.6)

Diving support systems must meet the following requirements:

- (a) Piping for diving installations which is permanently installed on the vessel must meet the requirements of Subpart B (Commercial Diving Operations) of 46 CFR Part 197.
- (b) Piping internal to a pressure vessel for human occupancy (PVHO) must meet the requirements of Subpart B of 46 CFR Part 197.

Cite: 46CFR 199.290 Stowage of Survival Craft (IMO CODE Cite: 10.3.6.1)

On a drillship, 80 meters (262 feet) or more in length but less than 120 meters (393 feet) in length, must be stowed with the aft end of the lifeboat at a distance not less than one length of the lifeboat forward of the vessel's propeller; and on a surface unit 120 meters (393 feet) or more in length, must be stowed with the after end of the lifeboat not less than 1.5 times the length of the lifeboat forward of the vessel's propeller.

Each lifeboat and davit launched liferaft must be arranged to be boarded by its full complement of persons within 3 minutes from the time the instruction to board is given.

Cite: NVIC 9-97 Steel Ducting (*Gauge of Steel*) (IMO CODE Cite: 9.2.11 - 9.2.20)
(ABS Rule Cite: 3/11.5.11 - 3/11.5.20)

NVIC 9-97 recommends the use of 22 USSG steel ducting (0.73mm) to avoid additional arrangements for penetrations such as the use of dampers or sleeves. Whereas, IMO will allow any gauge ducting in areas where thicker ducting is not required, so long as it is non-combustible.

II. USCG REQUIREMENTS NOT ADDRESSED BY ABS RULES OR 1989 IMO MODU CODE

Cite: 33CFR 146.210	Emergency Evacuation Plan	II-1
Cite: 33CFR 159	Marine Sanitation Device	II-1
Cite: 46CFR Part 16	Chemical Testing Plan	II-1
Cite: 46CFR 107.305	Lifesaving Equipment Plan	II-1
Cite: 46CFR 108.160	Vertical Ladders	II-1
Cite: 46CFR 108.167	Weather Deck Ladders	II-1
Cite: 46CFR 108.181	Ventilation for Enclosed Spaces	II-1
Cite: 46CFR 108.193	Accommodation Spaces - Restrictions	II-1
Cite: 46CFR 108.195	Location of Accommodation Spaces	II-2
Cite: 46CFR 108.197	Construction of Accommodation Spaces	II-2
Cite: 46CFR 108.199	Arrangement of Sleeping Spaces	II-2
Cite: 46CFR 108.217	Guardrails and Bulwarks	II-2
Cite: 46CFR 108.219	Guardrails	II-2
Cite: 46CFR 108.221	Storm Rails	II-2
Cite: 46CFR 108.223	Guards on Exposed Equipment	II-2
Cite: 46CFR 108.403	Fire Extinguishing Systems: General	II-2
Cite: 46CFR 108.500	Life Saving Equipment - General	II-3
Cite: 46CFR 108.530	Stowage of Survival Craft	II-3
Cite: 46CFR 108.550	Survival Craft Launching and Recovery Arrangements: General	II-3
Cite: 46CFR 108.553	Survival Craft Launching and Recovery Arrangements using Falls and a Winch	II-3
Cite: 46CFR 108.580	Personal Lifesaving Appliances	II-3
Cite: 46CFR 108.621	Equipment Markings: General	II-3
Cite: 46CFR 108.623	General Alarm Bell Switch	II-3
Cite: 46CFR 108.625	General Alarm Bell	II-3
Cite: 46CFR 108.627	Carbon Dioxide Alarm	II-4

Cite:	46CFR 108.629	Fire Extinguishing System Branch Line Valve	II-4
Cite:	46CFR 108.631	Fixed Fire Extinguishing System Controls	II-4
Cite:	46CFR 108.633	Fire Stations	II-4
Cite:	46CFR 108.635	Self-Contained Breathing Apparatus	II-4
Cite:	46CFR 108.636	Work Vests	II-4
Cite:	46CFR 108.637	Hand Portable Fire Extinguishers	II-4
Cite:	46CFR 108.639	Emergency Lights	II-4
Cite:	46CFR 108.641	Instructions for Changing Steering Gear	II-4
Cite:	46CFR 108.643	Rudder Orders	II-5
Cite:	46CFR 108.645	Markings on Lifesaving Appliances	II-4
Cite:	46CFR 108.646	Markings on Stowage Locations	II-5
Cite:	46CFR 108.647	Inflatable Liferafts	II-5
Cite:	46CFR 108.649	Lifejackets, Immersion Suits and Lifebuoys	II-5
Cite:	46CFR 108.650	EPIRBs and SARTs	II-6
Cite:	46CFR 108.651	Portable Magazine Chests	II-6
Cite:	46CFR 108.653	Helicopter Facilities	II-6
Cite:	46CFR 108.655	Operating Instructions	II-6
Cite:	46CFR 108.659	Lifesaving Signal Instructions	II-6
Cite:	46CFR 108.661	Unit Markings: Draft Marks	II-6
Cite:	46CFR 109.201	Steering Gear, Whistles, General Alarm, and Means of Communication	II-7
Cite:	46CFR 109.203	Sanitation	II-7
Cite:	46CFR 109.211	Testing of Emergency Lighting and Power Systems	II-7
Cite:	46CFR 109.213	Emergency Training and Drills	II-7
Cite:	46CFR 109.301	Operational Readiness, Maintenance, and Inspection of Lifesaving Equipment	II-8
Cite:	46CFR 109.335	Stowage of Work Vests	II-9
Cite:	46CFR 109.337	Fireman's Outfit	II-9
Cite:	46CFR 109.339	Location of Fire Axes	II-9

Cite: 46CFR 109.347	Pilot Boarding Equipment	II-9
Cite: 46CFR 109.419	Report of Unsafe Machinery	II-10
Cite: 46CFR 109.421	Report of Repairs to Boilers and Pressure Vessels	II-10
Cite: 46CFR 109.425	Repairs and alterations: Fire Detecting and Extinguishing Equipment	II-10
Cite: 46CFR 109.433	Logbook Entries	II-10
Cite: 46CFR 109.435	Record of Fire Fighting Equipment Inspection	II-10
Cite: 46CFR 109.437	Crane Record Book	II-11
Cite: 46CFR 109.439	Crane Certificates	II-11
Cite: 46CFR 109.557	Flammable and Combustible Liquids: Carriage	II-11
Cite: 46CFR 109.559	Explosive and Radioactive Materials	II-11
Cite: 46CFR 109.563	Posting of Documents	II-11
Cite: 46CFR 109.564	Maneuvering Characteristics	II-12
Cite: 46CFR 199.565	Charts and Nautical Publications	II-12
Cite: 46CFR 109.573	Riveting, Welding and Burning Operations	II-12
Cite: 46CFR 109.577	Helicopter Fueling	II-12
Cite: 46CFR 199.60	Communications	II-12
Cite: 46CFR 199.70	Personal Life Saving Appliances	II-12
Cite: 46CFR 199.80	Muster List and Emergency Instructions	II-13
Cite: 46CFR 199.110	Survival Craft Muster and Embarkation Instructions	II-13
Cite: 46CFR 199.120	Launching Stations	II-13
Cite: 46CFR 199.130	Stowage of Survival Craft	II-13
Cite: 46CFR 199.140	Stowage of Rescue Boats	II-13
Cite: 46CFR 199.145	Marine Evacuation System Launching Arrangements	II-13
Cite: 46CFR 199.150	Survival Craft Launching and Recovery Arrangements: General	II-13
Cite: 46CFR 199.178	Marking of Stowage Locations	II-14
Cite: 46CFR 199.180	Training and Drills	II-14
Cite: 46CFR 199.261	Survival Craft	II-14

II. ADDITIONAL REQUIREMENTS NOT ADDRESSED BY ABS RULES OR 1989 IMO MODU CODE

Cite: 33CFR 146.210 Emergency Evacuation Plan

An approved Emergency Evacuation Plan (EEP) is required for MODUS. The requirements for EEP's are given in 33CFR 146.140. The USCG OCMI maintains EEP approval authority.

Cite: 33CFR 159 Marine Sanitation Device

All vessels over 60 feet must be installed with an operable Marine Sanitation Device (MSD) which controls the discharged fecal coliform bacteria count to 200 per 100 ml and the suspended solids to 150 mg/l or with an operable MSD which retains the sewage on board. An MSD which does not retain sewage on board must be fabricated by a manufacturer which is certified and is authorized to label by the Commandant, USCG.

Cite: 46CFR Part 16 Chemical Test Plan

Minimum standards, procedures, and means to be used to test for the use of dangerous drugs by unit personnel.

Cite: 46CFR 107.305 Life Saving Equipment Plan

The location and arrangement of each lifesaving system including each embarkation deck, showing each overboard discharge and clearances from projections and obstructions in the way of launching lifeboats, rescue boats, and lifeboats throughout the range of list and trim angles. The weight of each lifeboat, rescue boat, and davit launched liferaft when fully equipped and loaded. Working loads of davits and winches. Types and sizes of falls. manufacturer's name and identification of each item of equipment.

Cite: 46CFR 108.160 Vertical Ladders

- (a) Each vertical ladder must have rungs that are:
 - (1) At least 41 centimeters (16 inches) in length;
 - (2) Not more than 30 centimeters (12 inches) apart, uniform for the length of the ladder; and
 - (3) At least 18 centimeters (7 inches) from the nearest permanent object in back of the ladder.
- (b) Except when unavoidable obstructions are encountered, there must be at least 11.5 centimeters (4 and 1/2 inches) clearance above each rung.
- (c) Except as provided in 108.525(e), each exterior vertical ladder more than 6.0 meters (20 feet) in length must be fitted with a cage or ladder safety device meeting ANSI Standard 14.3 (1974) for fixed ladders.
- (d) No vertical fixed ladders may be made of wood.

Cite: 46CFR 108.167 Weather Deck Ladders

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

Cite: 46CFR 108.181 Ventilation for Enclosed Spaces

Each intake in a ventilating system is to be located so as to prevent, as far as practical, the intake of noxious fumes.

Cite: 46CFR 108.193 Accommodation Spaces - Restrictions

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

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

Cite: 46CFR 108.195 Location of Accommodation Spaces

- (b) On surface type units, accommodation spaces must not be located forward of a vertical plane located at 5 percent of the unit's length aft of the stem, at the designed summer load line.
- (c) On all unit's, the deckhead of each accommodation space must be above the deepest load line.

Cite: 46CFR 108.197 Construction of Accommodation Spaces

- (a) Each sleeping, mess, recreational or hospital space that is adjacent to or immediately above a stowage or machinery space, paint locker, drying room, washroom, toilet space or other odor source must be made odorproof.
- (b) Each accommodation space that is adjacent to or immediately above a galley, machinery space, machinery casing, boiler room or other noise or heat source, must be protected from the heat and noise.
- (c) Where the shell or an unsheathed weather deck forms a boundary of an accommodation space, the shell of deck must have a covering that prevents the formation of moisture.
- (d) The deckhead of each accommodation space must be a light color.
- (e) Each accommodation space in which water may accumulate must have a drain scupper located in the lowest part of the space, considering the average trim of the unit.
- (f) Each public toilet space must be constructed and located so that its odors do not readily enter any sleeping, mess, recreational or hospital space.

Cite: 46CFR 108.199 Arrangement of Sleeping Spaces

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

Cite: 46CFR 108.217 Guardrails and Bulwarks

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

Cite: 46CFR 108.219 Guardrails

- (a) Except for exposed peripheries of a freeboard or superstructure deck, each guardrail must have at least two evenly spaced courses.
- (b) At exposed peripheries of a freeboard or superstructure deck, each guardrail must have at least three courses not more than 38 centimeters (15 in.) apart with the lowest course not more than 23 centimeters (9 in.) above the deck.
- (c) For a rounded gunwale, the guardrail must be at the edge of the flat of the deck.

Cite: 46CFR 108.221 Storm Rails

- (a) Each unit must have a storm rail in the following locations:
- (b) On each deckhouse side that is normally accessible.
- (c) On each side of each passageway that is wider than 1.83 meters (6 feet).
- (d) On at least one side of each passageway that is less than 1.83 meters (6 feet) wide.

Cite: 46CFR 108.223 Guards on Exposed Equipment

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

Cite: 46CFR 108.403 Fire Extinguishing Systems: General

Fire Protection for Vital Service motors & Generators

Each enclosed ventilation system for electric motors or generators used for vital service including bilge pumps, fire pumps, or propulsion is to be provided with a fixed gaseous type extinguishing system.

Cite: 46CFR 108.500 Life Saving Equipment – General

For lifesaving equipment refer to ABS Supplement for Steel Vessels for Vessels on International Voyages.

Cite: 46CFR 108.530 Stowage of Survival Craft

Each liferaft must be arranged to permit it to drop into the water from the deck on which it is stowed in one of the following ways:

- a) Is outboard of the rail or bulwark;
- b) Is on stanchions or on a platform adjacent to the rail or bulwark; or
- c) Has a gate or other suitable opening to allow the liferaft to be pushed directly overboard.

Cite: 46CFR 108.550 Survival Craft Launching and Recovery Arrangements: General

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

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

Cite: 46CFR 108.553 Survival Craft Launching and Recovery Arrangements using Falls and a Winch

The following winch drum requirements must be met for all survival craft winches, not just multiple drum winches.

Each winch drum must be arranged so the fall wire winds onto the drum in a level wrap, and a multiple drum winch must be arranged so that the falls wind off at the same rate when lowering, and onto the drums at the same rate when hoisting.

The following requirements for guarding of falls must be met:

- a) Each unguarded fall must not pass near any operating position of the winch, such as hand cranks, payout wheels, and brake levers.
- b) Each fall, where exposed to damage or fouling, must have guards or equivalent protection. Each fall that leads along a deck must be covered with a guard that is not more than 300 millimeters (1 foot) above the deck.

Cite: 46CFR 108.580 Personal Lifesaving Appliances

Inflatable lifejackets, if carried, must be of the same or similar design.

Cite: 46CFR 108.621 Equipment Markings: General

Unless otherwise provided, each marking required in this subpart must be printed in English in red letters with a contrasting background permanent easy to be seen at least 1.3 centimeters (1/2 inch) in height.

Cite: 46CFR 108.623 General Alarm Bells Switch

Each general alarm bell switch must be marked "general alarm" on a plate or other firm non-corrosive backing.

Cite: 46CFR 108.625 General Alarm Bell

Each general alarm bell must be identified by marking "General alarm-when bell rings go to your station" next to the bell.

Cite: 46CFR 108.627 Carbon Dioxide Alarm

Each carbon dioxide alarm must be identified by marking "When alarm sounds vacate at once. Carbon dioxide being released" next to the alarm.

Cite: 46CFR 108.629 Fire Extinguishing System Branch Line Valve

Each branch line valve of each fire extinguishing system must be marked with the name of the space or spaces it serves.

Cite: 46CFR 108.631 Fixed Fire Extinguishing System Controls

Each cabinet or space that contains a valve, control, or manifold of a fixed fire extinguishing system must be marked by one of the following: "carbon dioxide fire apparatus", "foam fire apparatus", or "water spray apparatus" in letters at least 5 centimeters (2 inches) high.

Instructions for the operation of a fixed fire extinguishing system must be posted next to a fire apparatus described in paragraph (a) of this section.

Cite: 46CFR 108.633 Fire Stations

Fire stations marking: Each fire station must be identified by marking: "fire station no. -" next to the station in letters and numbers at least 5 centimeters (2 inches) high.

Cite: 46CFR 108.635 Self-Contained Breathing Apparatus

Self contained breathing apparatus markings: Each locker or space containing self-contained breathing apparatus must be marked: "self contained breathing apparatus".

Cite: 46CFR 108.636 Work Vests

Each space containing a work vest must be marked: "work vest".

Cite: 46CFR 108.637 Hand Portable Fire Extinguishers

Each hand portable fire extinguisher must be marked with a number that identifies it in relation to all other hand portable fire extinguishers.

The location of each hand portable fire extinguisher must be marked with the same number that is marked on the extinguisher.

Cite: 46CFR 108.639 Emergency Lights

Emergency lights markings must meet the requirements of 108.621 and each emergency light must be marked: "E".

Cite: 46CFR 108.641 Instructions for Changing Steering Gear

Steering gear instructions markings instructions stating, in order, the different steps to be taken for changing to emergency and secondary steering gear must be posted in the steering gear room and at each secondary steering station in 1.3 centimeters (1/2 inch) letters and numerals of contrasting color to the background.

Cite: 46CFR 108.643 Rudder Orders

At each steering station, the direction which the wheel or steering device must be moved for right rudder or left rudder must be marked in letters of contrasting color to the background on the wheel or steering device or in a place that is directly in the helmsman's line of vision to indicate "right rudder" and "left rudder".

Cite: 46CFR 108.645 Markings on Lifesaving Appliances

The bow of each lifeboat and rescue boat must be marked with the name of the unit and the name of the unit's hailing port. The hailing port is the same as that required to be marked on the stern of the unit to meet the requirements of Part 67, subpart 67.13. The stern of the lifeboat or rescue boat does not need require any markings.

Type II retro-reflective material approved under approval series 164.018 must be placed on the boat and meet the arrangement requirements in IMO Resolution A.658(16).

Each rigid liferaft must be marked as follows:

- a) the name of the unit must be marked on each rigid liferaft.
- b) the name of the port required to be marked on the stern of the unit to meet the requirements of Part 67, subpart 67.13.

At each entrance of each rigid liferaft, the number of persons the rigid liferaft is equipped for, not exceeding the number shown on its nameplate, must be marked in letters and numbers at least 100 millimeters (4 inches) high, in a color contrasting to that of the liferaft.

Cite: 46CFR 108.646 Markings on Stowage Locations

Containers, brackets, racks, and other similar stowage locations for lifesaving equipment, must be marked with symbols in accordance with IMO Resolution A.760 (18), indicating the devices stowed in that location for that purpose.

If more than one device is stowed in that location, the number of devices must also be indicated.

Survival craft should be numbered consecutively, starting from the unit's bow and designating survival craft on the starboard side with odd numerals, and survival craft on the port side with even numerals.

Cite: 46CFR 108.647 Inflatable Liferafts

The number of the liferaft and the number of persons it is permitted to accommodate must be marked or painted in a conspicuous place in the immediate vicinity of each inflatable liferaft in block capital letters and numbers. The word "liferaft", or the appropriate symbol from IMO Resolution A.760 (18), shall be used to identify the stowage location. liferafts stowed on the sides of the unit should be numbered in the same manner as the lifeboats. This marking must not be on the inflatable liferaft container.

Cite: 46CFR 108.649 Lifejackets, Immersion Suits and Lifebuoys

Each lifejacket must be marked in block capital letters with the name of the unit; and with Type I retro-reflective material approved under approval series 164.018. The arrangement of the retro-reflective material must meet IMO Resolution A.658(16).

The lifejacket stowage positions must be marked with either the word "lifejacket" or with the appropriate symbol from IMO Resolution A.760(18).

Each lifejacket, immersion suit, and anti-exposure suit container must be marked in block capital letters and numbers with the quantity, identity, and size of the equipment stowed inside the container. The equipment may be identified in words, or with the appropriate symbol from IMO Resolution A.760(18).

Each immersion suit or anti-exposure suit must be marked in block capital letters with the name of the unit.

Immersion suits or anti-exposure suits must be stowed so they are readily accessible, and the stowage positions must be marked with either the words "IMMERSION SUITS" or "ANTI-EXPOSURE SUITS" or with the appropriate symbol from IMO Resolution A.760(18).

Each lifejacket, immersion suit, and anti-exposure suit container must be marked in block capital letters and numbers with the quantity, identity, and size of the equipment stowed inside the container. The equipment may be identified in words, or with the appropriate symbol from IMO Resolution A.760(18).

Each lifejacket, immersion suit, and anti-exposure suit container must be marked in block capital letters and numbers with the quantity, identity, and size of the equipment stowed inside the container. The equipment may be identified in words, or with the appropriate symbol from IMO Resolution A.760(18).

Each lifebuoy must be marked with Type II retro-reflective material approved under Part 164, subpart 164.018 of this chapter. The arrangement of the retro-reflective material must meet IMO Resolution A.658(16).

Each lifebuoy stowage position must be marked with either the words "LIFEBUOY" or "LIFE BUOY" or with the appropriate symbol from IMO Resolution A.760(18).

Cite: 46CFR 108.650 EPIRBs and SARTs

Emergency position indicating radio beacons and search and rescue transponders. Each EPIRB and SART should have the name of the unit plainly marked or painted on its label, except for EPIRBs or SARTs in an inflatable liferaft or permanently installed in a survival craft.

Cite: 46CFR 108.651 Portable Magazine Chests

Each portable magazine chest must be marked: "portable magazine chest - flammable - keep lights and fire away" in letters at least 7.5 centimeters (3 inches) high.

Cite: 46CFR 108.653 Helicopter Facilities

Each helicopter fueling facility must be marked adjacent to the fueling hose storage: "warning - helicopter fueling station - keep lights and fire away".

Each storage tank for helicopter fuel must be marked: "danger - flammable liquid".

Each access to a helicopter landing area must be marked: "beware of tail rotor".

Each marking required by this section must be in letters at least 7.5 centimeters (3 inches) high.

Cite: 46CFR 108.655 Operating Instructions

Each unit must have posters or signs displayed in the vicinity of each survival craft and the survival craft's launching controls that illustrate the purpose of controls; illustrate the procedures for operating the launching device; give relevant instructions or warnings; can be easily seen under emergency lighting conditions; and display symbols in accordance with IMO Resolution A.760(18).

Cite: 46CFR 108.659 Lifesaving Signal Instructions

On all vessels to which this subpart applies, there must be readily available to the offshore installation manager, master, or person in charge a placard containing instructions for the use of the lifesaving signals set forth in Regulation 16, Chapter V, of the International Convention for Safety of Life at Sea, 1974. These signals must be used by vessels or persons in distress when communicating with lifesaving stations and maritime rescue units.

Cite: 46CFR 108.661 Unit Markings: Draft Marks

Each unit must have draft marks for each foot of immersion:

- a) If the unit is a surface unit, on both the port and starboard sides of the stem and the stern-post or rudderpost or at any other place at the stern of the unit as may be necessary for easy observance;
- b) if the unit is a self-elevating unit, near each corner of the hull but not more than 4 required; and
- c) if the unit is a column-stabilized unit, on each corner column, continuing to the footing or lower displacement hull.

The bottom of each mark must be at the draft indicated by that mark.

Each mark must be in numerals 15 centimeters (6 inches) high; and in contrasting color to the background.

For the purposes of this section, "draft" means the distance from the bottom of the keel or the lowest shell plate on the outer suffice of the unit to the surface of the water, except that where a unit has a permanent appendage extending below the bottom of the keel, "draft" means the distance from the lowest part of the appendage to the surface of the water.

In cases where draft marks are obscured due to operational constraints or by protrusions, the vessel must be fitted with a reliable draft indicating system from which the draft can be determined.

Cite: 46CFR 109.201 Steering Gear, Whistles, General Alarm, and Means of Communication

The ABS surveyor is to ensure that—

- (a) Steering gear, whistles, general alarm bells, and means of communication between the bridge or control room and the engine room on self propelled units are inspected and tested—
 - (1) Within 12 hours before getting under way; and
 - (2) At least once each week if under way or on station; and
- (b) Whistles and general alarm bells on all other units are inspected examined and tested at least once each week.

Cite: 46CFR 109.203 Sanitation

The ABS surveyor is to ensure that the accommodation spaces are in a clean and sanitary condition.

Cite: 46CFR 109.211 Testing of Emergency Lighting and Power Systems

The ABS surveyor is to ensure that—

- a) Each emergency lighting and each emergency power system is tested at least once each week;
- b) Each emergency generator is tested at least once each month by operating it under load for at least 2 hours; and
- c) Each storage battery for emergency lighting and power systems is tested every six months under actual connected load for a period of at least 2 hours.

After the 2 hour test period required in paragraph (a)(3) of this section, the voltage values under load or specific gravity of electrolyte must be measured. Measured values must be extrapolated to approximate the values that would result following a 12 hour test period. The test must be extended if a trend cannot be determined to allow extrapolation. The capacity of the battery corresponding to the extrapolated values of voltage or specific gravity must be sufficient to supply the actual connected load.

Cite: 46CFR 109.213 Emergency Training and Drills

The ABS surveyor is to ensure that abandonment training material are on board each unit. The training material must consist either of a manual of one or more volumes, written in easily understood terms and illustrated wherever possible, or audiovisual training aids, or both as follows:

- a) If a training manual is used, a copy must be made available to each person on board the unit. If audiovisual training aids are used, they must be incorporated into the onboard training sessions described under paragraph (g) of this section.
- b) The training material must explain, in detail all the requirements set forth by this section.

Cite: 46CFR 109.301 Operational Readiness, Maintenance and Inspection of Lifesaving Equipment

The ABS surveyor is to ensure-

- (a) Operational Readiness:

Except as provided in § 109.301(b)(3), each lifesaving appliance must be in good working order and ready for immediate use at all times when the unit is in operation.
- (b) Maintenance:
 - (1) The manufacturer's instructions for onboard maintenance of lifesaving appliances must be onboard and must include the following for each appliance—(i) Checklists for use when carrying out the inspections required under § 109.301(e); (ii) Maintenance and repair instructions; (iii) A schedule of periodic maintenance; (iv) A diagram of lubrication points with the recommended lubricants; (v) A list of replaceable parts; (vi) A list of sources of spare parts; and (vii) A log for records of inspections and maintenance.
 - (2) In lieu of compliance with paragraph (b)(1) of this section, The OCMI may accept a planned maintenance program that includes the items listed in that paragraph.
 - (3) If lifeboats, rescue boats or rigid liferafts are maintained and repaired while the unit is in operation, there must be a sufficient number of lifeboats and liferafts remaining available for use to accommodate all persons on board.
- (c) Spare parts and repair equipment must be provided for each lifesaving appliance and component subject to excessive wear or consumption and that needs to be replaced regularly.
- (d) Weekly inspections and tests:
 - (1) Each survival craft, rescue boat, and launching appliance must be visually inspected to ensure its readiness for use.
 - (2) Each lifeboat and rescue boat engine must be run ahead & astern for not less than 3 minutes, unless ambient temperature is below the minimum temperature required for starting the engine. During this time, demonstrations should indicate that the gear box and gear box train are engaging satisfactorily. If the special characteristics of an outboard motor fitted to a rescue boat would not allow the outboard motor to be run other than with its propeller submerged for a period of 3 minutes, the outboard motor should be run for such period as prescribed in the manufacturer's hand-book.
 - (3) The general alarm system must be tested.
- (e) Each life-saving appliance, including lifeboat equipment, must be inspected monthly using the checklists required under paragraph (b) of this section to ensure it is complete and in good working order. A report of the inspection, including a statement as to the condition of the equipment, must be recorded in the unit's official logbook.
 - (2) Each EPIRB and each SART (not located in liferafts) must be tested monthly. The EPIRB must be tested using the integrated test circuit and output indicator to determine that it is operative.
- (f) Annual inspection and repair must include the following:
 - (1) Each survival craft, except for inflatable liferafts, must be stripped, cleaned, inspected and repaired, as needed, at least once in each year, including emptying and cleaning each fuel tank, and refilling it with fresh fuel.
 - (2) Each davit, winch, fall and other launching appliance must be thoroughly inspected and repaired, as needed, once in each year.
 - (3) Each item of survival equipment with an expiration date must be replaced during the annual inspection and repair, if the expiration date has passed.
 - (4) Each battery clearly marked with an expiration date, that is used in an item of survival equipment must be replaced during the annual inspection and repair, if the expiration date has passed.
 - (5) Except for a storage battery used in a lifeboat or rescue boat, each battery without an expiration date that is used in an item of survival equipment must be replaced during the annual inspection and repair.
- (g) Servicing of inflatable lifesaving appliances, inflated rescue boats, and marine evacuation systems.
 - (1) Each inflatable lifesaving appliance and marine evacuation system must be serviced—
 - (i) Within 12 months of its initial packing; and
 - (ii) Within 12 months of each subsequent servicing, except when servicing is delayed until the next scheduled inspection of the unit, provided the delay does not exceed 5 months.
 - (2) Each inflatable lifejacket must be serviced in accordance with servicing procedures meeting the requirements of Part 160, subpart 160.176 of this chapter. Each hybrid inflatable lifejacket must be serviced in accordance with the owners manual and meet the requirements of Part 160, subpart 160.077 of this chapter.
 - (3) Each inflatable liferaft must be serviced—

- (i) Whenever the container of the raft is damaged, or the straps or seal broken; and
 - (ii) In accordance with servicing procedures meeting the requirements of Part 160, subpart 160.151 of this chapter.
- (4) Each inflated rescue boat must be repaired and maintained in accordance with the manufacturer's instructions. All repairs must be made at a servicing facility approved by the Commandant (G-MSE), except for emergency repairs carried out on board the unit.
- (h) Periodic servicing of hydrostatic release units. Each hydrostatic release unit, other than a disposable hydrostatic release unit, must be serviced—
- (1) Within 12 months of its manufacture and within 12 months of each subsequent servicing, except when servicing is delayed until the next scheduled inspection of the unit, provided the delay does not exceed 5 months; and (2) In accordance with repair and testing procedures meeting the requirements of Part 160, Subpart 160.062 of this chapter.
- (i) Periodic servicing of launching appliances and release gear.
- (1) Launching instructions, or as set out in the shipboard planned maintenance program.
 - (2) Launching appliances must be thoroughly examined at intervals not exceeding 5 years and upon completion of the examination, the launching appliance must be subjected to a dynamic test of the winch brake.
 - (3) Lifeboat and rescue boat release gear must be serviced at the intervals recommended in the manufacturer's instructions, or as set out in the planned maintenance program.
 - (4) Lifeboat and rescue boat release gear must be subjected to a thorough examination by properly trained personnel familiar with the system at each inspection for certification.
- (5) Lifeboat and rescue boat release gear must be operationally tested under a load of 1.1 times the total mass of the lifeboat when loaded with its full complement of persons and equipment, whenever overhauled, or at least once every five years.
- (j) Maintenance of falls.
- (1) Each fall used in a launching appliance must be turned end-for-end at intervals of not more than 30 months and must be renewed when necessary due to deterioration or at intervals of not more than 5 years, whichever is earlier.
 - (2) As an alternative to paragraph (j)(1) of this section, each fall may be inspected annually and renewed whenever necessary due to deterioration or at intervals of not more than 4 years, whichever is earlier.
- (k) Rotational deployment of marine evacuation systems. In addition to or in conjunction with the servicing intervals of marine evacuation systems required by paragraph (g)(1) of this section, each marine evacuation system must be deployed from the unit on a rotational basis. Each marine evacuation system must be deployed at least once every 6 years.

Cite: 46CFR 109.335 Stowage of Work Vests

The ABS surveyor is to ensure that no work vest is stowed where life preservers are stowed.

Cite: 46CFR 109.337 Fireman's Outfit

The ABS surveyor is to ensure that:

- (a) At least 2 persons who are trained in the use of the fireman's outfit are on board at all times; and
- (c) A fireman's outfit is not used for any purpose other than fire fighting except as provided in § 108.703.

Cite: 46CFR 109.339 Location of Fire Axes

The ABS surveyor is to ensure that the fire axes required in § 108.499 of this subchapter are located in the enclosures for fire hoses marked in accordance with § 108.633 of this sub-chapter, if the fire axes are not located in plain view.

Cite: 46CFR 109.347 Pilot Boarding Equipment

The ABS surveyor is to ensure that the boarding equipment is maintained as follows:

- (1) The equipment must be kept clean and in good working order.

- (2) Each damaged step or spreader step on a pilot ladder must be replaced in kind with an approved replacement step or spreader step, prior to further use of the ladder. The replacement step or spreader step must be secured by the method used in the original construction of the ladder, and in accordance with manufacturer instructions.

The ABS surveyor is to ensure that:

- (1) Only approved pilot boarding equipment is used.
- (2) The pilot boarding equipment rests firmly against the hull of the vessel and be clear of overboard discharges.
- (3) Two man ropes, a safety line and an approved lifebuoy with an approved water light must be at the point of access and be immediately available for use during boarding operations.
- (4) Rigging of the equipment and embarkation/debarkation of a pilot must be supervised in person by a deck officer.
- (5) Both the equipment over the side and the point of access must be adequately lit during night operations.
- (6) If a pilot hoist is used, a pilot ladder must be kept on deck adjacent to the hoist and available for immediate use.

Cite: 46CFR 109.419 Report of Unsafe Machinery

The ABS surveyor is to ensure that if a boiler, unfired pressure vessel, or other machinery on a unit is unsafe to operate, the master or person in charge has reported the existence of the unsafe condition to the Officer in Charge, Marine Inspection.

Cite: 46CFR 109.421 Report of Repairs to Boilers and Pressure Vessels

The ABS surveyor is to ensure that Before making repairs, except normal repairs and maintenance such as replacement of valves or pressure seals, to boilers or unfired pressure vessels in accordance with § 50.05–10 of this chapter, that the master or person in charge reports the nature of the repairs to the Officer in Charge, Marine Inspection.

Cite: 46CFR 109.425 Repairs and Alterations: Fire Detecting and Extinguishing Equipment

The ABS surveyor is to ensure that prior to making repairs or alterations, except emergency repairs or alterations to fire detecting and extinguishing equipment, the master or person in charge has reported the nature of the repairs or alterations to the OCMI. The ABS surveyor is to also ensure that when emergency repairs or alterations to fire detecting or fire-extinguishing equipment have been made, the master or person in charge has reported the nature of the repairs or alterations to the OCMI.

Cite: 46CFR 109.433 Logbook Entries

The ABS surveyor is to ensure that the following applicable entries are made in the logbook required by this subpart:

- (a) The date of each test of the steering gear, whistle, general alarm, and communications equipment and the condition of the equipment.
- (b) The time and date of each opening and closing, while the unit is afloat, of each required appliance for watertight integrity not fitted with a remote operating control or alarm system and the reasons for the action.
- (c) The date of each test of emergency lighting and power systems and the condition and performance of the equipment.
- (d) The logbook must include information on emergency training drills required in § 109.213(h).
- (e) Prior to getting underway, the fore and aft drafts, the position of the Loadline marks in relation to the surface of the water, and the density of the water in which the vessel is floating, if in fresh or brackish water.
- (f) After loading and prior to getting underway and at all other times necessary to assure the safety of the vessel, a statement verifying vessel compliance with applicable stability requirements as required by § 109.227.
- (g) The date of each inspection of each accommodation space.
- (h) The date of each inspection required in § 109.573 if performed by the master or person in charge.

Cite: 46CFR 109.435 Record of Fire Fighting Equipment Inspection

The ABS surveyor is to ensure that

- (a) A record of each test and inspection for fire fighting equipment required in § 109.223 is maintained on board, until the unit is re-inspected or inspected for certification.

- (b) The record required in paragraph (a) of this section must show—
- (1) The date of each test and inspection;
 - (2) The number or other identification of each item of equipment tested or inspected; and
 - (3) The name of the person, and the company he represents if any, who conducts the test or inspection.

Cite: 46CFR 109.437 Crane Record Book

The ABS surveyor is to ensure that the following are maintained in a crane record book:

- (a) Descriptive information which will identify each crane including—
 - (1) American Petroleum Institute (API) nameplate data required by Section 11 of API Spec. 2C, Second Edition, February 1972; and
 - (2) The rated load chart for each line reeving and boom length which may be utilized.
- (b) Information required by Section 3 of the American Petroleum Institute Recommended Practice for Operation and Maintenance of Offshore Cranes, API RP 2D, First Edition (October 1972) with Supplement 1.
- (c) Dates and results of frequent inspections and tests required in paragraph (b) of this section.
- (d) Dates and results of periodic inspections and tests required in paragraph (b) of this section.
- (e) Date and result of each rated load test.
- (f) Date and description of each replacement or renewal of wire rope, hooks, and other load components.
- (g) Date and description of each failure of the crane, or any component or safety feature.
- (h) Date and description of each repair to the crane structure, boom, or equipment.

Cite: 46CFR 109.439 Crane Certificates

The ABS surveyor is to ensure that the following certificates and records for each crane are maintained on the unit:

- (a) Each certificate issued by a crane certifying authority.
- (b) Each record and original certificate, or certified copy of a certificate, or manufacturers or testing laboratories, companies or organizations for—
 - (1) Loose gear;
 - (2) Wire rope; and
 - (3) The annealing of wrought iron gear.

Cite: 46CFR 109.557 Flammable and Combustible Liquids: Carriage

The ABS surveyor shall ensure that—

- (a) Flammable and combustible liquids in bulk are not carried, except as allowed by endorsement to the Certificate of Inspection;
- (b) Portable tanks are handled and stowed in accordance with subparts 98.30 and 98.33 of this chapter and the provisions of 49 CFR Parts 171 through 179 that apply to portable tanks; and
- (c) Grades B and lower liquids are—
 - (1) Authorized, by the Commandant, to be carried; and
 - (2) Carried only in fixed independent or integral tanks.

Cite: 46CFR 109.559 Explosives and Radioactive Materials

The ABS surveyor shall ensure that explosives or radioactive materials and equipment on a unit are not used unless authorized.

Cite: 46CFR 109.563 Posting of Documents

The ABS surveyor shall ensure that the following are posted under glass in the pilot house or control center:

- (a) General arrangement plans for each deck showing—
 - (1) Each fire retardant bulkhead;
 - (2) Each fire detecting, manual alarm, and fire extinguishing system;
 - (3) Each fire door;

- (4) Each means of ingress to compartments; and
 - (5) Each ventilating system, including the location of each damper, fan, and remote means of stopping the fans.
 - (6) For units constructed on or after September 30, 1997, and for existing units which have their plans redrawn, the symbols used to identify the aforementioned details shall be in accordance with IMO Assembly Resolution A.654(16). The identical symbols can be found in ASTM Adjunct F 1626.
- (b) The stability letter issued by the Coast Guard.
- (c) Each SOLAS and Coast Guard certificate issued to the unit.

Cite: 46CFR 109.564 Maneuvering Characteristics

The ABS surveyor shall ensure that each self-propelled unit of 1,600 gross tons and over shall ensure that a maneuvering information fact sheet is prominently displayed in the pilot-house. For surface type units, the maneuvering information in Subpart 97.19 of this chapter must be displayed. The maneuvering information requirements for column stabilized, self-elevating, and other units of unusual design will be specified on a case by case basis.

Cite: 46CFR 199.565 Charts and Nautical Publications

The ABS surveyor shall ensure that self-propelled units have the following adequate, up to date, and appropriate items for the intended voyage: Charts, Sailing directions, Coast pilots, Light lists, Notices to Mariners, Tide Tables, Current Tables, and all other nautical publications necessary.

Cite: 46CFR 109.573 Riveting, Welding and Burning Operations

The ABS surveyor shall ensure that there is no riveting, welding, or burning in a fuel tank; on the boundary of a fuel tank; on pipelines, heating coils, pumps, fittings, or other appurtenances connected to fuel tanks; or on the boundary of spaces adjacent to tanks carrying Grades B, or C flammable liquids in bulk unless authorize to do so according to this section.

Cite: 46CFR 109.577 Helicopter Fueling

The ABS surveyor shall verify that portable tanks (for helicopter fueling) are handled and stowed in accordance with Subparts 98.30 and 98.33 of this chapter and the provisions of 49 CFR Parts 171 through 179 that apply to portable tanks.

Cite: 46CFR 199.60 Communications

Onboard communications and alarm systems. Each vessel must meet the requirements for onboard communications between emergency control stations, muster and embarkation stations, and strategic positions on board. Each vessel must also meet the emergency alarm system requirements in subchapter J of this chapter, which must be supplemented by either a public address system or other suitable means of communication.

Cite: 46CFR 199.70 Personal Life Saving Appliances

At least one lifebuoy must be located near the stern of the vessel.

A sufficient number of lifejackets must be carried for use at remotely located survival craft stations.

The additional lifejackets for persons on watch required by paragraph (b)(1)(ii) of this section must be stowed on the bridge, in the engine control room, and at other manned watch stations.

Immersion suits approved under approval series 160.171 or anti-exposure suits approved under approval series 160.153 of suitable size for each person assigned to the rescue boat crew and each person assigned to a marine evacuation system crew.

Cite: 46CFR 199.80 Muster List and Emergency Instructions

Muster list to be posted in the engine room.

The muster list should include assigned duties, including making sure that a supply of blankets are taken to the survival craft in an emergency.

Cite: 46CFR 199.110 Survival Craft Muster and Embarkation Arrangements

Provided that there is at least one embarkation ladder on each side of the vessel, the OCMI may permit additional embarkation ladders to be other approved devices that provide safe and rapid access to survival craft in the water. The OCMI may accept other safe and effective means of embarkation for use with a liferaft required under § 199.261(e).

Cite: 46CFR 199.120 Launching Stations

- (a) Each launching station must be positioned to ensure safe launching with clearance from the propeller and from the steeply overhanging portions of the hull.
- (b) Each survival craft must be launched down the straight side of the vessel, except for free-fall launched survival craft.
- (c) Each launching station in the forward part of the vessel must be in a sheltered position that is located aft of the collision bulkhead; and have a launching appliance approved with an endorsement as being of sufficient strength for forward installation.

Cite: 46CFR 199.130 Stowage of Survival Craft

Each survival craft must be stowed as near the water surface as is safe and practicable; except for liferafts intended for throw overboard launching, not less than 2 meters above the waterline with the vessel in the fully loaded condition; under unfavorable conditions of trim; and listed up to 20 degrees either way, or to the angle at which the vessel's weatherdeck edge becomes submerged, whichever is less.

Cite: 46CFR 199.140 Stowage of Rescue Boats

A survival craft that weight 185 kilograms (407.8 pounds) or less may be lifted not more than 300 millimeters (1 foot) in order to launch.

Each lifeboat for lowering down the side of the vessel must be stowed as far forward of the vessel's propeller as practicable.

Cite: 46CFR 199.145 Marine Evacuation System Launching Arrangements

The marine evacuation system's launching positions must be arranged, as far as practicable, to be straight down the vessel's side and to safely clear the propeller and any steeply overhanging positions of the hull.

Cite: 46CFR 199.150 Survival Craft Launching and Recovery Arrangements: General

Unless expressly provided otherwise in this part, each survival craft must be provided with a launching appliance or marine evacuation system, except those survival craft that are carried in excess of the survival craft for 200 percent of the total number of persons on board the vessel, and that have a mass of not more than 185 kilograms (407 pounds); are carried in excess of the survival craft for 200 percent of the total number of persons on board the vessel and that are stowed for launching directly from the stowed position under unfavorable conditions or trim of 10 degrees and list of 20 degrees either way; or are provided for use in conjunction with a marine evacuation system and that are stowed for launching directly from the stowed position under unfavorable conditions of trim of 10 degrees and list of 20 degrees

either way.

During preparation and launching, the and the area of water into which it is to be launched are illuminated by lighting supplied from the vessel's emergency source of electrical power.

If there is a danger of the survival craft being damaged by the vessel's stabilizer wings, the stabilizer wings must be able to be brought inboard using power from the emergency source of electrical power. Indicators operated by the vessel's emergency power system must be provided on the navigating bridge to show the position of the stabilizer wings.

Cite: 46CFR 199.178 Marking of Stowage Locations

Each liferaft stowage location should be marked with the capacity of the liferaft stowed there.

Cite: 46CFR 199.180 Training and Drills

On a vessel engaged on voyage when the passengers or special personnel are scheduled to be on board for more than 24 hours, musters of the passengers and special personnel must take place within 24 hours after their embarkation. Passengers and special personnel must be instructed in the use of the lifejackets and the action to take in an emergency.

Whenever new passengers or special personnel embark, a safety briefing must be given immediately before sailing or immediately after sailing. The briefing must include the instructions required by § 199.80 and must be made by means of an announcement in one or more languages likely to be understood by the passengers and special personnel. The announcement must be made on the vessel's public address system or by other equivalent means likely to be heard by the passengers and special personnel who have not yet heard it during the voyage. The briefing may be included in the muster required by paragraph (b)(2) of this section if the muster is held immediately upon departure. Information cards or posters, or video programs displayed on the vessel video displays, may be used to supplement the briefing, but may not be used to replace the announcement.

Abandon-ship drills should also include conducting a mock search and rescue of passengers or special personnel trapped in their staterooms, and giving instructions in the use of radio lifesaving appliances.

Cite: 46CFR 199.261 Survival Craft

Each marine evacuation system must be approved under approval series 160.175

**III. ACP SUPPLEMENT
INITIAL 1989 IMO MODU CODE SURVEY CHECK SHEET**

AMERICAN BUREAU OF SHIPPING

PROCESS INSTRUCTION CHECK SHEET ON REQUIREMENTS RELATING TO THE U.S. SUPPLEMENT TO THE ABS RULES,

ACP SUPPLEMENT, CHECK SHEET

TO BE DONE IN CONJUNCTION WITH THE INITIAL 1989 IMO MODU CODE SURVEYS

Vessel: _____ ABSID _____

Associated report: _____ Date: _____

In addition to the requirements of the 1989 IMO MODU Code the following supplementary items are required for compliance with United States Coast Guard regulations.

PART I - ACCOMMODATION SPACES

Note: Sleeping, mess, hospital, recreational, toilet, washing and shower spaces together with all corridors within are considered accommodation spaces.

		YES	NO	N/A
1.	Have approved materials been used for the construction of the Accommodation spaces?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Are escape arrangements provided for the accommodation spaces as noted below?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a) At least two means of escape are provided for all accommodation spaces with areas that exceed 27 square meters.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) From a space below the main deck, one means must be through openings not required to be watertight.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c) From a space above the main deck, one means must provide rapid access to the weather deck.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	d) Means must be through exits that minimize the possibility of both exits being blocked by fire or casualty.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	e) A required means of escape may not be a vertical ladder or deck scuttle, except that one of the means of escape may be a vertical ladder or deck scuttle if a stairway would be impracticable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	f) No door to the required means of escape may be designed to lock except:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1) A crash door or a door that has a locking device that can be easily forced, if on both sides of the door a permanent and easily seen instruction is placed.			
	2) An outside door to a deckhouse if the door can be locked by key only and if the master or person in charge has control of the key to the door's lock.			
3	Have the following arrangements concerning location of accommodation spaces been confirmed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a) On surface units, accommodation spaces must not be located forward of a vertical plane located at 5 percent of the unit's length aft of the stem, at the designed summer load line.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) On all units, the deckhead of each accommodation space must be above the deepest load line.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4.	Have the Accommodation Spaces been constructed in accordance with the following?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a)	Each sleeping, mess, recreational or hospital space that is adjacent to or immediately above a stowage or machinery space, chain locker, drying room, washroom , toilet space or other odor source must be made odor proof.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Each accommodation space that is adjacent to or immediately above a galley, machinery space, machinery casing, boiler room or other noise or heat source, must be protected from the heat and noise.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	Where the shell or an unsheathed weather deck forms a boundary of an accommodation space, the shell or deck must have a covering that prevents the formation of moisture.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	The deckheads of each accommodation space must be a light color.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e)	Each accommodation space in which water may accumulate must have a drain scupper located in the lowest part of the space, considering the average trim of the unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f)	Each public toilet space must be constructed and located so that its odors do not readily enter any sleeping, mess, recreational or hospital space.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<hr/>				
5.	Have the arrangements and size of sleeping spaces been verified to meet the following requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a)	To the extent practicable, each occupation group must be berthed together in sleeping space arranged to minimize disturbance created by personnel leaving for or arriving from a work period.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	No sleeping space may berth more than four persons. Except that sleeping space for personnel not regularly employed on a unit may berth up to six persons if the space meets 46 CFR 108.199 and berthing of six persons in that space is authorized by the Commandant (G-MSO).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	Without deducting any equipment used by the occupants, each sleeping space must have for each occupant:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1) 2.8 square meters (approximately 30 square feet) of deck area; and	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2) 6 cubic meters (approximately 210 cubic feet) of volume.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	Each sleeping space must have at least 191 centimeters (approximately 6 feet 3 inches) of headroom over clear deck areas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<hr/>				
6.	Have berths and lockers been provided that meet the following requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a)	Each sleeping space must have a separate berth for each occupant.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	No more that one berth may be placed over an other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	Each berth must have a framework of hard, smooth material that is not likely to corrode or harbor vermin.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	Each berth must be arranged to provide ample room for easy occupancy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e)	Each berth must be at least 76 centimeters (approximately 30 inches) wide by 193 centimeters (approximately 76 inches) long.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f)	Adjacent berths must be separated by a partition that extends at least 46 centimeters (approximately 18 inches) above the sleeping space.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g)	The bottom of a lower berth must be at least 30 centimeters (approximately 12 inches) above the deck.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h)	The bottom of an upper berth must be at least 76 centimeters (approximately 2 feet 6 inches) from the bottom of the berth below it and from the deck or any pipe, ventilating duct or other overhead installation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i)	Each berth must have a berth light	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j)	Each occupant of a sleeping space must have a readily accessible locker of hard, smooth material.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

k)	Each locker must be at least .194 square meters (approximately 300 square inches) in cross section and 1.53 meters (approximately 60 inches) high.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	Do wash spaces, toilet spaces and shower spaces comply with the following requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<div style="border: 1px solid black; padding: 5px;"> <p>Note: "Private facility" means a toilet, washing or shower space that is accessible only from a single or double occupancy sleeping space; " Semi-private facility" means a toilet, washing or shower space that is accessible from either of two one to four person occupancy sleeping spaces; and, "Public facility" means a toilet, washing or shower space that is not private or semi-private</p> </div>				
a)	Each private facility must have one toilet, one shower, and one washing basin, all of which may be in a single space.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Each semi-private facility must have one toilet and one shower, which may be one space.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	Each room adjoining a semi-private facility must have a wash basin when a wash basin is not installed in a semi-private facility.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	Each Unit must have enough public facilities to provide at least one toilet, one shower and one wash basin for each eight persons who occupy sleeping spade that do not have private or semi-private facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e)	Urinals may be installed in toilet room, but no toilet required in this section may be replaced by a urinal.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f)	Each public toilet space and washing space must be convenient to the sleeping space that it serves;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g)	No public facility may open into any sleeping space.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h)	Each wash basin, shower and bathtub must have hot and cold running water.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i)	Adjacent toilets must be separate by a partition that is open at the top and bottom for ventilation and cleaning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j)	Public toilet facilities and shower facilities must be separated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k)	Each public facility that is a toilet space must have at least one wash basin unless the only access to the toilet space is through a washing space.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l)	Each toilet must have an open front seat.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m)	Each washing space and toilet space must be constructed and arranged that it can be kept in a clean and sanitary condition and the plumbing and mechanical appliances kept in good working order.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n)	Wash basins may be located in sleeping space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	Are mess rooms provided with the following arrangements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a)	Each mess room that is not adjacent to the galley that it serves must be equipped with a steam table.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Each mess room must seat the number of persons expected to eat in the mess room at one time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	Are Hospital spaces provided in accordance with the following?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a)	Each Unit carrying 12 or more person on a voyage of more than 3 days must have a hospital space.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Each hospital space must be suitably separated from other spaces.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	No hospital space may be used for any other purpose, when used for care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	of the sick.			
	d) An entrance to each hospital space must be wide enough and arranged to readily admit a person on a stretcher.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	e) Each berth in a hospital space must be made of metal.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	f) Each upper berth must be hinged and arranged so that it can be secured clear of the lower berth.			
	g) Each hospital space must have one berth for every 12 persons or portion thereof on board, who are not berthed in single occupancy rooms, but the number of berths need not exceed 6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	h) Each hospital space must have a toilet, wash basin and bathtub or shower accessible form the hospital space.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	i) Each hospital space must have clothes lockers, a table and seats.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<hr/>				
10.	If the hospital space noted above is not provided, have the following conditions been met?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a) The hospital space required under 46CFR 108.209 is not required on a Unit if one single or double occupancy sleeping space, designated and equipped as a treatment or isolation room or both is available for immediate medical use; and,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1) An entrance that is wide enough and arranged to readily admit a person on a stretcher.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2) A single berth or examination table that is accessible form both sides is provided.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3) A wash basin is provided in or immediately adjacent to the room.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<hr/>				
11.	Are the Accommodation spaces fitted with the following requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a) Each Unit must have enough facilities for personnel to wash their own clothes, including at least one tub or sink that has hot and cold running water.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) Each unit must have enough equipment or space for the personnel to dry their own clothes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c) Each Unit must have an accommodation space that can be used for recreation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	d) Each accommodation space must be heated by a heating system that can maintain at least 20 °C (68 °F).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	e) Radiators and other heating apparatuses must be constructed, located or shielded as to avoid risk of;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1) Fire,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2) Danger and discomfort to the occupants of each accommodation space.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	f) Each exposed pipe in an accommodation space, leading to a radiator or other heating apparatus must be insulated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	g) Accommodation spaces must be protected against the admission of insects.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	h) Insect screen must be installed when natural ventilation is provided.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<hr/>				
12	Are Guardrails provided that meet the following requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a) Except for exposed peripheries of a freeboard or superstructure deck, each guardrail must have at least two evenly spaced courses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) At exposed peripheries of a freeboard or superstructure deck, each guardrail must have at least three courses not more that 38 centimeters (15 in.) apart with the lowest course not more than 23 centimeters (9 in.) above the deck.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c) For a rounded gunwale, the guardrail must be at the edge of the flat of the deck.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<hr/>				

13.	Are Storm rails provided in accordance with the following requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a) On each deckhouse side that is normally accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) On each side of each passageway that is wider than 1.83 meters (6 feet).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c) On at least one side of each passageway that is less than 1.83 meters (6 feet) wide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	Have the accommodation spaces been examined and found in a clean and sanitary condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PART II ADDITIONAL STRUCTURAL FIRE PROTECTION REQUIREMENTS

		YES	NO	N/A
1.	Are all bulkheads separating accommodation spaces from any storage spaces constructed as Class "A" bulkheads?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Note: Corridors are considered accommodation spaces.			
2.	Are all bulkheads separating accommodation spaces from panty spaces constructed as Class "A" bulkheads?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	Has it been confirmed that no nitrocellulose or other highly flammable or noxious fume producing paint or lacquer has been used on the Unit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PART III - ADDITIONAL MARKING REQUIREMENTS

		YES	NO	N/A
1.	Has it been confirmed that the Unit's Safety Equipment has been marked in accordance with the requirements listed below?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a) Each lifejacket and immersion suit must be marked with the unit's name in block capital letters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) Each general alarm bell switch must be marked "general alarm" on a plate or other firm non-corrosive backing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c) Each general alarm bell must be identified by marking "general alarm-when bell rings go to your station" next to the bell	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	d) Each Carbon Dioxide alarm must be identified by marking "when alarm sounds vacate at once. Carbon Dioxide being released" next to the alarm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	e) Each branch line valve of each fire extinguishing system must be marked with the name of the space or spaces it serves	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	f) Each cabinet or space that contains a valve, control, or manifold of a fixed fire extinguishing system must be marked by one of the following: "Carbon Dioxide fire apparatus", "foam fire apparatus", or "water spray apparatus" in letters at least 5 centimeters (2 inches) high.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	g) Instructions for the operation of a fixed fire extinguishing system must be posted next to the control position of the apparatus.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	h) Each fire station must be numbered and identified by marking: "fire station no.-" next to the station in letters and numbers at least 5 centimeters (2 inches) high.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	i) Each locker or space containing self-contained breathing apparatus must be marked: "self-contained breathing apparatus".	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	j) Each space containing a work vest must be marked: "work vest".	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- k) Each hand portable fire extinguisher must be marked with a number that identifies it in relation to all other hand portable fire extinguishers
- l) The location of each hand portable fire extinguisher must be marked with the same number that is marked on the extinguisher
- m) Lifeboat markings. The name of the port, required to be marked on the stern of the unit to meet the requirements of 46 CFR Part 67, Subpart 67.13, is to be marked on the lifeboat. Type II retro-reflective material approved under approval series 164.018 must be placed on the boat and meet the arrangement requirements in IMO Resolution A.658(16).
- n) Each rigid liferaft must be marked as follows:
 - 1) With the name of the port as required to be marked on the stern of the unit to meet the requirements of Part 67, Subpart 67.13.
 - 2) At each entrance of each rigid liferaft, the number of persons the rigid liferaft is equipped for, not exceeding the number shown on its nameplate, must be marked in letters and numbers at least 100 millimeters (4 inches) high, in a color contrasting to that of the liferaft.
- o) Containers, brackets, racks, and other similar stowage locations for lifesaving equipment, must be marked with symbols in accordance with IMO Resolution A.760(18), indicating the devices stowed in that location for that purpose. If more than one device is stowed in that location, the number of devices must also be indicated. Survival craft should be numbered consecutively, starting from the units bow and designating survival craft on the starboard side with odd numerals, and survival craft on the port side with even numerals.
- p) Liferaft markings(inflatable) The number of the liferaft and the number of persons it is permitted to accommodate must be marked or painted in a conspicuous place in the immediate vicinity of each inflatable liferaft in block capital letters and numbers. The word "liferaft" or the appropriate symbol from IMO Resolution A.760(18) shall be used to identify the stowage location. Liferafts stowed on the sides of the unit should be numbered in the same manner as the lifeboats. This marking must not be on the inflatable liferaft container.
- q) Lifejacket markings, each lifejacket must be marked in block capital letters with the name of the unit; and
 - 1) With type I retro-reflective material approved under approval series 164.018 the arrangement of the retro-reflective material must meet IMO Resolution A.658(16).
 - 2) The lifejacket stowage positions must be marked with either the word "lifejacket" or with the appropriate symbol from IMO Resolution A.760(18)
 - 3) Each lifejacket, immersion suit, and anti-exposure suit container must be marked in block capital letters and numbers with the quantity, identity, and size of the equipment stowed inside the container. The equipment may be identified in words, or with the appropriate symbol from IMO Resolution A.760(18).
- r) Each immersion suit or anti-exposure suit must be marked in block capital letters with the name of the unit.
- s) Immersion suits or anti-exposure suits must be stowed so they are readily accessible, and the stowage positions must be marked with either the words "immersion suits" or "anti-exposure suits" or with the appropriate symbol from IMO Resolution A.760(18).
- t) Each lifebuoy must be marked with type II retro-reflective material approved under Part 164, Subpart 164.018 of this chapter. The arrangement of the retro-reflective material must meet IMO Resolution A.658(16). Each lifebuoy stowage position must be marked with either the words "lifebuoy" or "life

	buoy" or with the appropriate symbol from IMO Resolution A.760(18).			
	u) EPIRB'S and SART'S markings emergency position indicating radiobeacons and search and rescue transponders. Each EPIRB and SART should have the name of the unit plainly marked or painted on its label, except for EPIRB's or SART's in an inflatable liferaft or permanently installed in a survival craft.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	v) Portable magazine chests markings each portable magazine chest must be marked: "portable magazine chest - flammable - keep lights and fire away" in letters at least 7.5 centimeters (3 inches) high.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	w) Each unit must have posters or signs displayed in the vicinity of each survival craft and the survival craft's launching controls that:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1) Illustrate the purpose of controls,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2) Illustrate the procedures for operating the launching device,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3) Give relevant instructions or warnings,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	4) Can be easily seen under emergency lighting conditions; and;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5) Display symbols in accordance with IMO Resolution A.760(18).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	x) Is there readily available to the Offshore Installation Manager, Master, or Person in Charge, a placard containing instructions for the use of the lifesaving signals set forth in Regulation 16, Chapter V, of the International Convention for Safety of Life at Sea (SOLAS), 1974. These signals must be used by vessels or persons in distress when communicating with lifesaving stations and maritime rescue units	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<hr/>				
2.	Have instructions for operating the equipment noted below been verified to have been posted as required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a) Instructions stating, in order, the different steps to be taken for changing to emergency and secondary steering gear must be posted in the steering gear room and at each secondary steering station in 1.3 centimeters (1/2 inch) letters and numerals of contrasting color to the background.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) At each steering station, the direction which the wheel or steering device must be moved for right rudder or left rudder must be marked in letters of contrasting color to the background on the wheel or steering device or in a place that is directly in the helmsman's line of vision to indicate "right rudder" and "left rudder".	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c) Each helicopter fueling facility must be marked adjacent to the fueling hose storage: "warning - helicopter fueling station - keep lights and fire away" in letters at least 7.5 centimeters (3 inches) high.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	d) Each storage tank for helicopter fuel must be marked: "danger - flammable liquid" in letters at least 7.5 centimeters (3 inches) high.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	e) Each access to a helicopter landing area must be marked: "beware of tail rotor" in letters at least 7.5 centimeters (3 inches) high.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<hr/>				
3.	Is the Unit provided with draft marks in accordance with the following:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a) Each unit must have draft marks for each foot of immersion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) If the unit is a surface unit, on both the port and starboard sides of the stem and the stern-post or rudderpost or at any other place at the stern of the unit as may be necessary for easy observance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c) If the unit is a self-elevating unit, near each corner of the hull but not more than 4 required; and,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	d) If the unit is a column-stabilized unit, on each corner column, continuing to the footing or lower displacement hull.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	e) The bottom of each mark must be at the draft indicated by that mark. Each mark must be in numerals 15centimeters (6 inches) high and in contrasting color to the background.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	f) For the purposes of this section, "draft" means the distance form the bottom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

of the keel or the lowest shell plate on the outer surface of the unit to the surface of the water, except that where a unit has a permanent appendage extending below the bottom of the keel. "draft" means the distance from the lowest part of the appendage to the surface of the water.

- g) In cases where draft marks are obscured due to operational constraints or by protrusions, the vessel must be fitted with a reliable draft indication system from which the draft can be determined.

PART IV - ADDITIONAL REQUIREMENTS FOR LIFE BOATS, DAVITS, LIFERAFTS, IMMERSIONS SUITS LIFEJACKETS & LINE THROWING APPARATUS.

	YES	NO	N/A
1. The lifeboats and launching appliances, liferafts, immersions suits been examined in accordance with the following requirements and found in compliance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) Lifeboats and launching appliance may be of aluminum construction only if the stowage location is protected by a water spray system meeting the requirements of 46CFR34.25	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Inflatable lifejackets, if carried, must be of the same or similar design	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Each life raft must be arranged to permit it to drop into the water from the deck on which it is stowed in one of the following ways;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1) Is outboard of the rail or bulwark,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) Is on stanchions or on a platform adjacent to the rail or bulwark, or;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Has a gate or other suitable opening to allow the liferaft to be pushed directly overboard.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The following requirements for guarding of falls must be met?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) Each unguarded fall must not pass near any operating position of the winch, such as hand cranks, payout wheels, and brake levers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Each fall, where exposed to damage or fouling, must have guards or equivalent protection. Each fall that leads along a deck must be covered with a guard that is not more than 300 millimeters (1 foot) above the deck.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The following winch drum requirements must be met for all survival craft winches?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) Each winch drum must be arranged so the fall wire winds onto the drum in a level wrap, and a multiple drum winch must be arranged so that the falls wind off at the same rate when lowering, and onto the drums at the same rate when hoisting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Does the maximum lowering speed for each survival craft meet the following?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) The lowering speed for a survival craft loaded with all of its equipment must be not less than 70 percent of the speed required under 46CFR108.553.g.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) The lowering speed for a fully loaded survival craft must be not more than 1.3 meters per second (256 feet per minute).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Are Immersion suits provided, except those Units operating between 32° North and 32° South latitude and do they meet the following requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) Each immersion suit or anti-exposure suit must have a lifejacket light approved under approval series 161.112 securely attached to the front	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

shoulder area of the immersion suit or anti-exposure suit. On a unit not in international service, a light approved under approval series 161.012 may be used. However, chemiluminescent type lifejacket lights bearing approval number 161.012/2/0 are not permitted on units certificated to operate on waters where water temperature may drop below 10°C (50°F),

b)	Each immersion suit or anti-exposure suit must have a whistle firmly secured by a cord to the immersion suit or anti-exposure suit,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	Additional immersion suits are required to be provided at each watch station, work station, and industrial work site equal to the number of persons normally on watch in, or assigned to, the station or site at one time. However, an immersion suit is not required at a station or site for a person whose cabin or berthing area (and the immersion suits stowed in that location) is readily accessible to the station or site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	Are lifejackets stowed where readily accessible and are the following requirements complied with?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a)	Each unit must carry a lifejacket for each person on board and in addition, a sufficient number of lifejackets must be carried for persons at each work station and industrial work site,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Each lifejacket must have a lifejacket light approved under approval series 161.112 securely attached to the front shoulder area of the lifejacket. On a unit not in international service, a light approved under approval series 161.012 may be used. However, chemiluminescent-type lifejacket lights are not permitted on units certificated to operate on waters where water temperature may drop below 10 °C (50 °F),	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	Each lifejacket must have a whistle firmly secured by a cord to the lifejacket.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	Is an auxiliary line provided for the Line throwing apparatus in accordance with the following?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a)	Has a breaking strength of at least 40 kiloNewtons (9,000 pounds-force),	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Is, if synthetic, a dark color or certified by the manufacturer to be resistant to deterioration from ultraviolet light, and;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	At least 450 meters (1,500 feet) long, if the line-throwing appliance is approved under approval series 160.040, or,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	At least 150 meters (500 feet) long, if the line-throwing appliance is approved under approval series 160.031.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	Are additional life preservers or buoyant work vests provided for each person that is required to work over water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	If work vests are provided, are they stowed in a separate location as life preservers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PART V MISCELLANEOUS ITEMS FOR COMPLIANCE

	YES	NO	N/A
1. Have the following Plans been approved and sighted on board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) Emergency Evacuation Plan (approval by USCG OCMI),	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Chemical Testing Plan (approval by ABS Technical Department),	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Life Saving Equipment Plan (approval by ABS Technical Department),	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Fire Control Plan (approval by ABS Technical Department).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	If not have the cranes been maintained in accordance with API RP 2D, 1972 edition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	For Units that are equipped with portable tanks for helicopter fueling, are the handling and stowage arrangements in accordance with 46 CFR Subparts 98.30 and 98.33 of this chapter and the provision of 49 CFR Parts 171 through 179 that apply to portable tanks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	Has it been confirmed that there has been no riveting, welding or burning in a fuel tank; on the boundary of a fuel tank; on pipelines, heating coils, pumps, fittings, or other appurtenances connected to fuel tanks; or on the boundary of spaces adjacent to tanks carrying Grades B or C flammable liquids in bulk unless authorized to do so.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	If any boiler, unfired pressure vessel, or other machinery on a unit is found unsafe to operate, has it been confirmed that the existence of the unsafe condition has been reported to the Officer in Charge, Marine Inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	If repairs are found necessary to any boiler or unfired pressure vessel has it been confirmed that that the necessary report has been reported to the Officer in Charge, Marine Inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	Has it been confirmed that the required seals on any boiler safety valves are not broken? If the above seals have been found broken has the Officer in Charge of Marine Inspection been notified as noted below? a) Notification to the OCMI as to the reason for breaking the seal b) Request that the valve be examined and adjusted.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.	Has it been confirmed that prior to making repairs or alterations, except emergency repairs or alterations to fire detecting and extinguishing equipment, the master or person in charge has reported the nature of the repairs or alterations to the OCMI.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.	Has it also been confirmed that when emergency repairs or alterations to fire detecting or fire-extinguishing equipment have been made, the master or person in charge has reported the nature of the repairs or alterations to the OCMI.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20.	Are the following documents posted under glass in the pilot house or control center: (a) General arrangement plans for each deck showing— (1) Each fire retardant bulkhead; (2) Each fire detecting, manual alarm, and fire extinguishing system; (3) Each fire door; (4) Each means of ingress to compartments; and (5) Each ventilating system, including the location of each damper, fan, and remote means of stopping the fans. (6) For units constructed on or after September 30, 1997, and for existing units which have their plans redrawn, the symbols used to identify the aforementioned details shall be in accordance with IMO Assembly Resolution A.654(16). The identical symbols can be found in ASTM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Adjunct F 1626.

- (b) The stability letter issued by the United States Coast Guard.
- (c) Each SOLAS and United States Coast Guard certificate issued to the unit.

21.	Has it been confirmed that abandonment training material is on board? The training material must consist either of a manual of one or more volumes, written in easily understood terms and illustrated wherever possible, or audiovisual training aids, or both as follows:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a) If a training manual is used, a copy must be made available to each person on board the unit. If audiovisual training aids are used, they must be incorporated into the onboard training sessions described under paragraph (g) of this section.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) The training material must explain, in detail all the requirements set forth by this section.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22.	Has it been confirmed that explosives or radioactive materials and equipment on a unit are not used unless authorized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23.	Has it been confirmed that:			
	a) Flammable and combustible liquids in bulk are not carried, except as allowed by endorsement to the Certificate of Inspection;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) Portable tanks are handled and stowed in accordance with Subparts 98.30 and 98.33 of this chapter and the provisions of 49 CFR Parts 171 through 179 that apply to portable tanks; and	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c) Grades B and lower liquids are—			
	1) Authorized, by the Commandant, to be carried; and	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2) Carried only in fixed independent or integral tanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PART VI VERIFICATION OF LOGBOOK ENTRIES

		YES	NO	N/A
1.	Has it been confirmed that the master or person in charge of a unit has an official logbook (required by 46 U.S.C.11301) maintained on Form CG-706?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Have logbook entries been sighted in accordance with the following?			
	a) The date of each test of the steering gear, whistle, general alarm, and communications equipment and the condition of the equipment. <u>Note:</u> Steering gear, whistles, general alarm bells, and means of communication between the bridge or control room and the engine room on self propelled units are inspected and tested: (1) Within 12 hours before getting under way; and (2) At least once each week if under way or on station; and Whistles and general alarm bells on all other units are inspected examined and tested at least once each week.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) The time and date of each opening and closing, while the unit is afloat, of each required appliance for watertight integrity not fitted with a remote operating control or alarm system and the reasons for the action.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c) The date of each test of emergency lighting and power systems and the condition and performance of the equipment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	d) The logbook must include information on emergency training drills required in § 109.213(h).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- e) Prior to getting underway, the fore and aft drafts, the position of the Loadline marks in relation to the surface of the water, and the density of the water in which the vessel is floating, if in fresh or brackish water.
- f) After loading and prior to getting underway and at all other times necessary to assure the safety of the vessel, a statement verifying vessel compliance with applicable stability requirements as required by § 109.227.
- g) The date of each inspection of each accommodation space.
- h) The date of each inspection required in § 109.573 if performed by the master or person in charge.

3. Has it been confirmed that:
- a) A record of each test and inspection for fire fighting equipment required in § 109.223 is maintained on board, until the unit is re-inspected or inspected for certification.
 - b) The record required in paragraph (a) of this section must show:
 - 1) The date of each test and inspection;
 - 2) The number or other identification of each item of equipment tested or inspected; and
 - 3) The name of the person, and the company he represents if any, who conducts the test or inspection.

4. Have logbook entries been sighted for testing of the Emergency Lighting and Power systems in accordance with the following?
- a) Each emergency lighting and each emergency power system is tested at least once each week;
 - b) Each emergency generator is tested at least once each month by operating it under load for at least 2 hours; and
 - c) Each storage battery for emergency lighting and power systems is tested every six months under actual connected load for a period of at least 2 hours.

After the 2 hour test period required in paragraph (a)(3) of this section, the voltage values under load or specific gravity of electrolyte must be measured. Measured values must be extrapolated to approximate the values that would result following a 12 hour test period. The test must be extended if a trend cannot be determined to allow extrapolation. The capacity of the battery corresponding to the extrapolated values of voltage or specific gravity must be sufficient to supply the actual connected load.

PART VII MAINTENANCE OF LIFESAVING EQUIPMENT AND EMERGENCY TRAINING

	YES	NO	N/A
1. Have the maintenance records for all lifesaving appliances been examined and found maintained in accordance with the following requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(a) Operational Readiness: Except as provided in § 109.301(b)(3), each lifesaving appliance must be in good working order and ready for immediate use at all times when the unit is in operation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Maintenance:			
1) The manufacturer's instructions for onboard maintenance of lifesaving appliances must be onboard and must include the following for each appliance—(i) Checklists for use when carrying out the inspections required under § 109.301(e); (ii) Maintenance and repair instructions; (iii)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- A schedule of periodic maintenance; (iv) A diagram of lubrication points with the recommended lubricants; (v) A list of replaceable parts; (vi) A list of sources of spare parts; and (vii) A log for records of inspections and maintenance.
- 2) In lieu of compliance with paragraph (b)(1) of this section, The OCMI may accept a planned maintenance program that includes the items listed in that paragraph.
 - 3) If lifeboats, rescue boats or rigid liferafts are maintained and repaired while the unit is in operation, there must be a sufficient number of lifeboats and liferafts remaining available for use to accommodate all persons on board.
 - c) Spare parts and repair equipment must be provided for each lifesaving appliance and component subject to excessive wear or consumption and that needs to be replaced regularly.
 - d) Weekly inspections and tests.
 - 1) Each survival craft, rescue boat, and launching appliance must be visually inspected to ensure its readiness for use.
 - 2) Each lifeboat and rescue boat engine must be run ahead & astern for not less than 3 minutes, unless ambient temperature is below the minimum temperature required for starting the engine. During this time, demonstrations should indicate that the gear box and gear box train are engaging satisfactorily. If the special characteristics of an outboard motor fitted to a rescue boat would not allow the outboard motor to be run other than with its propeller submerged for a period of 3 minutes, the outboard motor should be run for such period as prescribed in the manufacturer's hand-book.
 - 3) The general alarm system must be tested.
 - e) Each life-saving appliance, including lifeboat equipment, must be inspected monthly using the checklists required under paragraph (b) of this section to ensure it is complete and in good working order.
 - 1) A report of the inspection, including a statement as to the condition of the equipment, must be recorded in the unit's official logbook.
 - 2) Each EPIRB and each SART (not located in liferafts) must be tested monthly. The EPIRB must be tested using the integrated test circuit and output indicator to determine that it is operative.
 - f) Annual inspection and repair must include the following:
 - 1) Each survival craft, except for inflatable liferafts, must be stripped, cleaned, inspected and repaired, as needed, at least once in each year, including emptying and cleaning each fuel tank, and refilling it with fresh fuel.
 - 2) Each davit, winch, fall and other launching appliance must be thoroughly inspected and repaired, as needed, once in each year.
 - 3) Each item of survival equipment with an expiration date must be replaced during the annual inspection and repair, if the expiration date has passed.
 - 4) Each battery clearly marked with an expiration date, that is used in an item of survival equipment must be replaced during the annual inspection and repair, if the expiration date has passed.
 - 5) Except for a storage battery used in a lifeboat or rescue boat, each battery without an expiration date that is used in an item of survival equipment must be replaced during the annual inspection and repair.
 - g) Servicing of inflatable lifesaving appliances, inflated rescue boats, and marine evacuation systems.
 - 1) Each inflatable lifesaving appliance and marine evacuation system must be serviced:

- (i) Within 12 months of its initial packing; and
 - (ii) Within 12 months of each subsequent servicing, except when servicing is delayed until the next scheduled inspection of the unit, provided the delay does not exceed 5 months.
- 2) Each inflatable lifejacket must be serviced in accordance with servicing procedures meeting the requirements of Part 160, subpart 160.176 of this chapter. Each hybrid inflatable lifejacket must be serviced in accordance with the owners manual and meet the requirements of Part 160, subpart 160.077 of this chapter.
- 3) Each inflatable liferaft must be serviced -
 - (i) Whenever the container of the raft is damaged, or the straps or seal broken; and
 - (ii) In accordance with servicing procedures meeting the requirements of Part 160, Subpart 160.151 of this chapter.
- 4) Each inflated rescue boat must be repaired and maintained in accordance with the manufacturer's instructions. All repairs must be made at a servicing facility approved by the Commandant (G-MSE), except for emergency repairs carried out on board the unit.
- h) Periodic servicing of hydrostatic release units. Each hydrostatic release unit, other than a disposable hydrostatic release unit, must be serviced -
 - 1) Within 12 months of its manufacture and within 12 months of each subsequent servicing, except when servicing is delayed until the next scheduled inspection of the unit, provided the delay does not exceed 5 months; and
 - 2) In accordance with repair and testing procedures meeting the requirements of Part 160, Subpart 160.062 of this chapter.
- i) Periodic servicing of launching appliances and release gear.
 - 1) Launching instructions, or as set out in the shipboard planned maintenance program.
 - 2) Launching appliances must be thoroughly examined at intervals not exceeding 5 years and upon completion of the examination, the launching appliance must be subjected to a dynamic test of the winch brake.
 - 3) Lifeboat and rescue boat release gear must be serviced at the intervals recommended in the manufacturer's instructions, or as set out in the planned maintenance program.
 - 4) Lifeboat and rescue boat release gear must be subjected to a thorough examination by properly trained personnel familiar with the system at each inspection for certification.
 - 5) Lifeboat and rescue boat release gear must be operationally tested under a load of 1.1 times the total mass of the lifeboat when loaded with its full complement of persons and equipment, whenever overhauled, or at least once every five years.
- j) Maintenance of falls.
 - 1) Each fall used in a launching appliance must be turned end-for-end at intervals of not more than 30 months and must be renewed when necessary due to deterioration or at intervals of not more than 5 years, whichever is earlier.
 - 2) As an alternative to paragraph (j)(1) of this section, each fall may be inspected annually and renewed whenever necessary due to deterioration or at intervals of not more than 4 years, whichever is earlier.
- k) Rotational deployment of marine evacuation systems. In addition to or in conjunction with the servicing intervals of marine evacuation systems required by paragraph (g) (1) of this section, each marine evacuation system must be deployed from the unit on a rotational basis. Each marine evacuation system

must be deployed at least once every 6 years.

PART VIII ADDITIONAL REQUIREMENTS FOR SELF-PROPELLED MODUS

	YES	NO	N/A
1. If the Modu is fitted with propulsion boilers has it been confirmed that the steam pressure for the boilers does not exceed that allowed by the Certificate of Inspection, and that the safety valves, once set, are not tampered with or made inoperative?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Has it been confirmed that for each self-propelled unit of 1,600 gross tons and over a maneuvering information fact sheet is prominently displayed in the pilot-house? For surface type units, the maneuvering information in Subpart 97.19 of this chapter must be displayed. The maneuvering information requirements for column stabilized, self-elevating, and other units of unusual design will be specified on a case by case basis.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Has it been confirmed that self-propelled units have the following adequate, up to date, and appropriate items for the intended voyage: Charts, Sailing directions, Coast pilots, Light lists, Notices to mariners, Tide Tables, Current Tables, and all other nautical publications necessary?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Have onboard communications and alarm systems been examined, tested and found fitted in accordance with the following? a) Each vessel must meet the requirements for onboard communications between emergency control stations, muster and embarkation stations, and strategic positions on board. b) Each vessel must also meet the emergency alarm system requirements in subchapter J of this chapter, which must be supplemented by either a public address system or other suitable means of communication.	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
5. Has a muster list been posted in the engine room.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Have the following arrangements been examined and found fitted as noted below: a) At least one lifebuoy must be located near the stern of the vessel. b) A sufficient number of lifejackets are provided for use at remotely located survival craft stations. c) The additional lifejackets for persons on watch are to be stowed on the bridge, in the engine control room, and at other manned watch stations. d) Immersion suits approved under approval series 160.171 or anti-exposure suits approved under approval series 160.153 of suitable size for each person assigned to the rescue boat crew and each person assigned to a marine evacuation system crew are to be provided.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
7. Is boarding equipment in accordance with the following requirements provided and maintained as noted below? a) The equipment must be kept clean and in good working order. b) Each damaged step or spreader step on a pilot ladder must be replaced in kind with an approved replacement step or spreader step, prior to further use of the ladder. The replacement step or spreader step must be secured by the method used in the original construction of the ladder, and in accordance	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>

- with manufacturer instructions.
- c) Only approved pilot boarding equipment is used.
- d) The pilot boarding equipment rests firmly against the hull of the vessel and be clear of overboard discharges.
- e) Two man ropes, a safety line and an approved lifebuoy with an approved water light must be at the point of access and be immediately available for use during boarding operations.
- f) Rigging of the equipment and embarkation debarkation of a pilot must be supervised in person by a deck officer.
- g) Both the equipment over the side and the point of access must be adequately lit during night operations.
- h) If a pilot hoist is used, a pilot ladder must be kept on deck adjacent to the hoist and available for immediate use.

IV. RECORD OF REVISIONS
