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16601 March 11, 2021

U.S. ALTERNATE COMPLIANCE PROGRAM (ACP) SINGLE SUPPLEMENT

Subj: PROMULGATION OF A SINGLE U.S. SUPPLEMENT FOR VESSELS ENROLLING IN THE ACP

- 1. This letter promulgates a single U.S. Supplement for vessels enrolling in the Coast Guard's Alternate Compliance Program (ACP). Previous supplements were specific to individual Recognized Organization's (RO) rules and will no longer be used for vessels enrolling in the ACP.
- 2. The original intent of the U.S. Supplement was to capture those requirements that existed in the Code of Federal Regulations (CFR) but were not embodied in either the RO's rules or international conventions, and to provide interpretation where items were left "to the satisfaction of the Administration." However, through International Maritime Organization (IMO) engagement and the continual development of the International Association of Classification Societies (IACS) Unified Interpretations, Unified Requirements, and Procedures, the gap between U.S. regulations and international requirements and interpretations has largely been closed.
- 3. To meet the intent and requirements set out in the Marine Board of Investigation report and the Commandant's Final Action Memorandum following the tragic loss of EL FARO, as well as the Save Our Seas Act of 2018, the Commandant has worked with ACP-authorized ROs to create a single U.S. Supplement primarily focused on critical ship safety systems.
- 4. The single U.S. Supplement is to be used by all ACP-authorized ROs for all ACP-authorized vessel types enrolling in the ACP.

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16711/Serial No. 881 U.S. Supplement 3/11/2021 March 11, 2021

From: M. Edwards, CAPT

Chief, Office of Commercial Vessel Compliance

To: Distribution

Subj: U.S. SUPPLEMENT TO INTERNATIONAL CONVENTIONS AND CLASSIFICATION SOCIETY RULES FOR SHIPS ENROLLED IN THE ALTERNATE COMPLIANCE

DDOCD AM (ACD)

PROGRAM (ACP)

Ref: (a) Navigation and Vessel Inspection Circular (NVIC) 02-95 CH-3

(b) Title 46, Code of Federal Regulations (CFR), Subpart 2.01

- 1. <u>PURPOSE</u>. The purpose of the U.S. Supplement is to provide supplemental requirements for critical ship safety systems related to Title 46 CFR which are necessary for the issuance of a Certificate of Inspection (COI), or other statutory certificates, and are not, in the opinion of the Coast Guard, adequately established by either International Maritime Organization (IMO) instruments or Recognized Organization (RO) rules.
- 2. <u>APPLICATION</u>. The U.S. Supplement contains requirements that are in addition to those found in IMO instruments and RO rules. The U.S. Supplement applies to vessels enrolled, or proposed for enrollment, in the ACP on or after this date.
- 3. <u>DIRECTIVES AFFECTED</u>. The following U.S. Supplements will no longer be used for vessels enrolling in the ACP:
 - a. U.S. Supplement to ABS Rules for Steel Vessels Certificated for International Voyages, August 14, 2017;
 - b. U.S. Supplement to ABS Rules for Building and Classing Steel Vessels Under 90 Meters (295 Feet) in Length, March 1, 2014;
 - c. U.S. Supplement to ABS Rules for Building and Classing Mobile Offshore Drilling Units and the 1989 IMO MODU Code, November 1, 1998;
 - d. U.S. Supplement to ABS Rules for Building and Classing Offshore Support Vessels for Vessels Certificated for International Voyages, August 1, 2017;
 - e. U.S. Supplement to DNV GL Rules for Classification of Ships and International Conventions, August 1, 2016;
 - f. Alternate Compliance Program U.S. Supplement to Lloyd's Register's Rules and Regulations for the Classification of Ships, April 2, 2010;

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- g. Alternate Compliance Program U.S. Supplement to Lloyd's Register's Rules and Regulations for the Classification of Mobile Offshore Units, October 4, 2005; and
- h. U.S. Supplement to ClassNK Rules for the Classification of Ships, March 9, 2016.

5. DISCUSSION.

- a. The ACP Standard, per reference (a), consists of applicable IMO instruments, RO rules, and an approved U.S. Supplement. Except for those requirements referred to in the U.S. Supplement, vessels enrolled in the ACP meet an alternative to the requirements for inspection and certification outlined for U.S. flag vessels in 46 CFR 2.01, reference (b).
- b. The Coast Guard, in consultation with the ACP-authorized ROs, developed this U.S. Supplement for use by all ACP-authorized ROs for all ACP-authorized vessel types enrolling in, or provisionally enrolling in, the ACP on or after this date.
- c. A vessel enrolled in the ACP with a U.S. Supplement to a particular RO's rules, will continue to use the previously assigned U.S. Supplement. Alternatively, the vessel owner or operator may choose to comply with this single U.S. Supplement in its entirety. All requests to change the applicable U.S. Supplement for a vessel enrolled in the ACP must be sent to the Commandant (CG-CVC-4) at FlagStateControl@uscg.mil.
- 4. <u>ACTION</u>. All applicable requirements in the U.S. Supplement must be verified by the RO before issuing the relevant corresponding statutory certificate to a vessel enrolled in the ACP on or after this date. Additionally, ROs must verify all applicable U.S. Supplement requirements during plan review for provisionally enrolled vessels in the ACP. All requirements in the U.S. Supplement are in addition to the requirements set forth by IMO instruments and the RO's rules. The Coast Guard will provide oversight of the plan review, survey, and certification services provided by ROs for vessels enrolled in the ACP.
- 5. <u>QUESTIONS</u>. Questions concerning this letter and guidance should be directed to Office of Commercial Vessel Compliance, Flag State Control Division at <u>FlagStateControl@uscg.mil</u>.

#

Enclosure: U.S. Supplement to International Conventions and Classification Society Rules for Ships Enrolled in the Alternate Compliance Program



U.S. Supplement to International Conventions and Classification Society Rules for Ships Enrolled in the Alternate Compliance Program

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1 INTRODUCTION

The Alternate Compliance Program (ACP) ¹ is a voluntary Coast Guard program designed to reduce the regulatory burden of compliance and enhance the competitive position of United States (U.S.) flag vessels. It does this by taking advantage of the survey and certification functions performed by Recognized Organizations (RO).² The ACP promotes flexibility in vessel construction and reduces duplicative inspections and surveys. It is designed to maintain an equivalent level of safety to the standards required by Title 46 of the Code of Federal Regulations (CFR).³

The Coast Guard Navigation and Vessel Inspection Circular (NVIC) 02-95 discusses the ACP fundamentals, roles and responsibilities of involved parties, and provides details of the ACP Standard.⁴ The ACP Standard consists of applicable International Maritime Organization (IMO) instruments, RO rules, and an approved U.S. Supplement. Except for those requirements referred to by the U.S. Supplement, vessels enrolled in the ACP meet an alternative to the requirements for inspection and certification outlined for U.S. flag vessels in 46 CFR 2.01. The ACP standard does not exempt vessels enrolled in the ACP from applicable regulations in Titles 33, 47, or 49 CFR. For this reason, the U.S. Supplement does not address individual requirements contained in these titles of the CFR which are applicable to vessels enrolled in the ACP.

1.1 Purpose

The U.S. Supplement only includes requirements for critical ship safety systems related to Title 46 CFR which are necessary for the issuance of a Certificate of Inspection (COI), or other statutory certificates, but which are not, in the opinion of the Coast Guard, adequately established by either IMO instruments or RO rules.⁵ The U.S. requirements in the U.S. Supplement, when coupled with those found in IMO instruments and RO rules, provide an equivalent level of safety to the requirements found in Title 46 CFR. The U.S. Supplement also provides Flag Administration interpretations necessary for ROs to perform their delegated statutory certification and services under the ACP.

1.2 Applicability

This U.S. Supplement applies to a vessel enrolled, or proposed for enrollment, in the ACP on or after the date found on the title page of this supplement. This will remain the applicable supplement until it is superseded by a revision. A vessel enrolled in the ACP before this supplement is published will continue to use the applicable supplement at the time of its ACP enrollment. A vessel proposed for provisional enrollment in the ACP will use the current U.S. Supplement at the time of provisional enrollment and that supplement will remain applicable upon the vessel's final enrollment into the ACP. Alternatively, a vessel may meet a later U.S. Supplement in its entirety. The applicable U.S. Supplement is listed on each vessel's ACP enrollment letter.

1.3 Authorization

ROs are authorized to participate in the ACP per their respective RO agreement. These authorizations include the ability to approve drawings, perform surveys, and issue statutory certificates on behalf of the Coast Guard consistent with their "delegated authorizations." The current list of ROs authorized to participate in the ACP, including the delegated statutory certification and services they can provide, is found on the Office of Commercial Vessel Compliance (CG-CVC) website.

This U.S. Supplement is to be used by ROs when performing plan review and other statutory and certification services on behalf of the Coast Guard for vessels enrolled or provisionally enrolled in the ACP. Specific eligibility requirements, definitions, and procedural information are located in NVIC 02-95.

¹ See 46 CFR Part 8, Subpart D and Navigation and Vessel Inspection Circular 02-95

² Domestic regulations predate the International Code for Recognized Organizations (RO Code). For the purposes of the U.S. Supplement, the term "RO", as defined in the RO Code, includes Authorized Classification Societies (ACS) as defined in 46 CFR 8.100 that are authorized to participate in the ACP under 46 CFR 8.420, and where those same ROs are delegated authority under 33 CFR part 96, subpart D.

³ See <u>62 FR 67532</u>, December 24, 1997

⁴ See also <u>46 CFR 8.440(a)</u> for additional information concerning vessel enrollment in the ACP.

⁵ See <u>46 CFR 8.430</u>

1.4 Appeals

Any company or person affected by a decision made by an RO or an Officer in Charge Marine Inspection (OCMI), may appeal that decision by following the procedures specified in $\frac{46 \text{ CFR } 1.03-35}{1.03-20}$, respectively.

1.5 Background

The Coast Guard focused previous supplements on critical ship safety systems.⁶ Each RO authorized to participate in the ACP previously prepared their individual supplement and would produce a new supplement as their individual RO rules changed. In recent years, the number of supplements has grown significantly. This is in part due to the increased number of ROs authorized to participate in the ACP, changes to ROs' rules requiring a new supplement, and the narrow applicability of individual supplements.

The <u>Save Our Seas Act of 2018</u>, Public L. No. 115-265, directed the Coast Guard to work with ACP-authorized ROs to create a single U.S. Supplement. A single U.S. Supplement is now possible due to the global commitment to establishing harmonized strong minimum international shipping standards that more closely reflect key U.S. regulatory positions. Specifically, the efforts made by the International Association of Classification Societies (IACS) to set strong minimum standards, known as Unified Requirements and Unified Interpretations, has improved consistency among their members' rule sets, promoted uniform implementation of IMO instruments amongst the ROs, and established a shared commitment to effective internal quality management systems. Additionally, IACS established Procedural Requirements which provide procedures and requirements for the acceptance of a transfer of classification and for the transfer of safety and security management systems certification from one IACS member RO to another. These IACS initiatives have resulted in better communication and acceptance of standards amongst its members. Over time, a single U.S. Supplement for all ACP-authorized ROs will reduce the number of active supplements and reduce confusion as to their applicability and use.

1.6 Discussion

Although not required, all ACP-authorized ROs are IACS members. For this reason, this U.S. Supplement addresses the gap between IMO instruments, IACS requirements, and the U.S. regulations found in Title 46 CFR. If a requirement within the U.S. Supplement does not meet a higher level of safety to a particular RO's rules, the RO's rules must be applied in place of the requirement in the U.S. Supplement. Requirements found within the U.S. Supplement do not exempt vessels from full compliance with IMO instruments and RO rules.

While U.S. regulations differ from international standards, the U.S. Supplement aims to only address critical ship safety systems, related to Title 46 CFR that are not, in the opinion of the Coast Guard, completely or otherwise adequately addressed by IMO instruments and RO rules, so supplemental requirements are warranted. For the purpose of the U.S. Supplement, a critical ship safety system is a system whose failure in whole or in part would immediately lead to personnel injury, major fire, progressive flooding, complete loss of power, complete loss of steering, complete loss of engine control, or negative impact to stability or watertight integrity. The Coast Guard, in consultation with the ACP-authorized ROs, evaluated the critical ship safety system list published in 63 FR 7495. To issue a COI consistent with the provisions of Title 46 CFR, the Coast Guard considers at least one component under each of the following critical ship safety systems to be inadequately covered by IMO instruments and RO rules.

- Subdivision and stability
- Dynamic Positioning Systems
- Steering gear motors
- Emergency power
- Hazardous locations
- Automation
- Fire protection, fire detection, and fire extinction
- Lifesaving appliances and arrangements

⁶ See <u>63 FR 7495</u>, February 13, 1998

• Coast Guard Type Approvals

The U.S. Supplement contains three main parts and an appendix. Section 1 of the U.S. Supplement is this introduction and outlines the intent and administration of the U.S. Supplement. Section 2 contains U.S. operational requirements that apply to all vessels enrolled in the ACP unless expressly stated otherwise. Section 3 contains supplemental requirements and interpretations which, unless expressly stated otherwise, only apply to vessels subject to the referenced IMO instrument citation. Appendix 1 contains the U.S. Supplement revision process.

1.7 Design Basis Agreements (DBAs)

A vessel with unique operations or size, or with novel or highly complex systems included in its design, may not be able to meet IMO instruments, RO rules, and the U.S. Supplement in their entirety. DBAs rely upon the Coast Guard's equivalency authorities under domestic regulations and international conventions, and memorialize all equivalences and alternatives the Coast Guard will accept for a specific novel or highly complex design or configuration that are at least as effective as those specified in the applicable regulations or international conventions for inspection and certification.

An Offshore Supply Vessel (OSV) engaged solely on voyages in domestic waters, wishing to enroll in the ACP, and certificated under Title 46 CFR Subchapter L, must request a DBA to make use of deviations from international requirements permitted under Subchapter L. The unique domestic requirements for OSVs usually results in deviations related to the carriage of liquid hazardous cargo, excess fuel, or offshore workers. A DBA for an OSV may be authorized which incorporates substitutions from an existing U.S. Supplement that specifically cover the unique domestic requirements which deviate from international requirements. A request for a DBA for a specific vessel must be submitted to the Office of Design and Engineering Standards (CG-ENG) for review and approval before the vessel is enrolled in the ACP by CG-CVC.

1.8 Maintenance of the U.S. Supplement

The Coast Guard, in consultation with ACP-authorized ROs, will maintain the U.S. Supplement so that it remains relevant with changes in vessel technology, design, and construction practices. Maintenance of the U.S. Supplement consists of an annual review of the current supplement and a review of proposed changes collected throughout the previous year. Accepted changes are published, as needed, in the U.S. Supplement. For applicability of the U.S. Supplement, including U.S. Supplement revisions, see Section 1.2.

IMO actions may lead to harmonization or divergence of the requirements in IMO instruments and those in U.S. regulations. The U.S. delegation to the IMO meeting will notify the Supplement Manager, at flagstatecontrol@uscg.mil, if an IMO action affects the critical ship safety systems referenced in Section 1.6.

ROs may request that the U.S. Supplement be updated when discrepancies are found between the U.S. Supplement and IMO instruments, IACS requirements, or U.S. regulations. RO requests should be addressed to the Supplement Manager at flagstatecontrol@uscq.mil.

Coast Guard stakeholders, such as an OCMI, the Commanding Officer, Marine Safety Center, and Coast Guard headquarters offices including but not limited to CG-ENG and the Office of Operating and Environmental Standards (CG-OES), may request that the U.S. Supplement be revised when discrepancies are found between the U.S. Supplement and IMO instruments, IACS requirements, or U.S. regulations. Requests should be addressed to the Supplement Manager at flagstatecontrol@uscg.mil.

2 U.S. OPERATIONAL REQUIREMENTS

U.S. operational requirements in the U.S. Supplement are those operational requirements within Title 46 CFR which are required of U.S. flag vessels and which are in addition to the requirements in relevant international conventions and codes. U.S. operational requirements are important for the safety of the crew, the vessel, and the environment. Note that the requirements of <u>Title 33 CFR</u> apply to all vessels operating in the U.S. and have not been restated in this U.S. Supplement.

2.1 Requirements for All Vessels

All vessels enrolled in the ACP, including those provisionally enrolled, must comply with these requirements. The Coast Guard is responsible for ensuring compliance with the requirements in this section. However, compliance with these requirements may also be subject to sampling by the RO during an audit.

2.1.1 Marine Casualty Reporting

The Coast Guard will conduct marine casualty investigations as authorized and required by federal law. This does not include any imposed RO requirements to report damage or casualties of vessels enrolled in the ACP. In the event of a marine casualty, the owner, agent, master or person in charge of an ACP vessel must provide immediate notice to the Coast Guard as required by $\underline{46 \text{ CFR } 4.05\text{-}1}$. Additional guidance is provided in $\underline{\text{NVIC } 01\text{-}15}$.

2.1.2 Drug and Alcohol Program

A drug and alcohol testing program must meet the requirements of 46 CFR Part 16 and 46 CFR 4.06.

2.1.3 Certificate of Documentation (COD)

The Coast Guard is responsible for the issuance of CODs which are administered by the National Vessel Documentation Center (NVDC). Regulations governing CODs are contained within 46 CFR Part 67 and apply to any vessel of at least five net tons which engages in the fisheries on the navigable waters of the United States or in the Exclusive Economic Zone, or coastwise trade. Such vessels, unless exempt under 46 CFR 67.9(c), must have a Certificate of Documentation bearing a valid endorsement appropriate for the activity in which engaged.

2.1.4 Minimum Safe Manning

The Coast Guard retains the administration of safe manning for all vessels enrolled in the ACP. Likewise, the Coast Guard determines the eligibility for reduced manning based upon automation systems. The primary law and regulations for safe manning are contained in 46 USC Subtitle II, Part F and 46 CFR Part 15 respectively. Additional guidance for safe manning is provided in Marine Safety Manual Volume III. The vessel's COI serves as the minimum safe manning document under SOLAS Chapter V, Regulation 14.

2.1.5 Crew Competency & Drills

The Coast Guard retains the verification of crew competency and drills as a precondition for issuance of a COI. Marine inspectors verify activities related to crew proficiency and drills for handling likely shipboard emergencies such as fires, a person overboard, abandon ship, failures of critical systems, pollution incidents, and security. The requirements for the scope, frequency, and documenting these activities are contained in the applicable IMO instrument.

2.2 Portable Accommodation Modules (PAMs)

The Coast Guard has the overall responsibility for plan review and inspection activities for PAMs. However, ROs may use <u>CG ENG Policy Letter No. 01-16</u> for installation review guidance for reviewing and approving the installation of PAMs on vessels enrolled in the ACP, for which the RO is issuing the relevant SOLAS safety certificates.

3 U.S. SUPPLEMENTAL REQUIREMENTS AND INTERPRETATIONS

U.S. supplemental requirements are those provisions within Title 46 CFR related to the critical ship safety systems identified in Section 1.6 which are required of U.S. flag vessels in addition to the requirements in relevant international conventions, codes, and RO rules. Although this section is organized by IMO instrument, the Coast Guard evaluated minimum IACS requirements to determine which requirements to include in this section. This section also includes the Coast Guard approval series for systems that are identified by an international standard for type approval by the Administration.

The requirements listed in this section apply to a vessel based on the applicability of the referenced IMO instrument parent cite, unless expressly stated otherwise. Note that some of the requirements in this section cite a requirement from a particular Title 46 subchapter. Unless stated otherwise, the applicability for the requirement in the U.S. Supplement is the same as the referenced IMO instrument parent cite, not the Title 46 CFR subchapter applicability.

All applicable supplemental requirements must be verified by the RO before issuance of the relevant corresponding statutory certificate. These supplemental requirements are in addition to the requirements set forth by IMO instruments, the RO's rules, and applicable titles of the CFR.

Unless otherwise authorized by formal Coast Guard correspondence, Coast Guard policy, or similar, ROs must adhere to all applicable IMO Interpretations, published IACS Unified Interpretations and Requirements, and published Coast Guard interpretations. In addition to the interpretations listed in this section, the Coast Guard may issue policy documents to direct the RO in the performance of statutory certification and services. The Coast Guard reserves the right to define and deconflict the language or requirements of these interpretations.

In the absence of published Coast Guard interpretations or guidance, including instances where IMO instruments state, "to the satisfaction of the Administration," ROs must contact CG-CVC at flagstatecontrol@uscq.mil for the needed interpretation or guidance.

3.1 Supplemental Requirements and Interpretations Related to the International Convention for the Safety of Life at Sea (SOLAS)

3.1.1 SOLAS Chapter II-1 Construction – Structure, Subdivision and Stability, Machinery and Electrical Installations

3.1.1.1 SOLAS Chapter II-1/4 – Subdivision and Stability: General

Each dry cargo vessel that is 80 meters in length or more and that changes flag to the U.S. registration must comply with the damage stability requirements contained in SOLAS chapter II-1 applicable to such a vessel if the vessel were constructed on the date of U.S. registration. The vessel must therefore comply with SOLAS 1974, as amended, Chapter II-1, regulations 6, 7, 7-1, 7-2, and 7-3 regardless of the date of the ship's construction.

3.1.1.2 SOLAS Chapter II-1/26 – Machinery Installations: General

Valves employing resilient material as part of the closure mechanism, instead of a metal-to-metal disc/seat arrangement, must meet the leakage criteria defined in $\frac{46 \text{ CFR } 56.20-15}{1000}$ if installed in the locations specified in that section.

Valves employing resilient material that meet the fire test and leakage requirements specified in API Standard 607 are considered acceptable for installations requiring Category A valves.

Pipes and piping components made of thermoplastic or thermosetting plastic materials, with or without reinforcement, are to conform to IMO Resolution A.753 (18).

The Marine Safety Center's Technical Note (MTN) MTN 01-10 "Marine Safety Center Review of Systems Containing Plastic Pipe" is considered acceptable industry guidance for the design and installation of plastic pipes on board U.S. flag vessels.

3.1.1.3 SOLAS Chapter II-1/29 – Steering Gear

For AC steering motors, the steering gear feeder must be provided with instantaneous trip protection. Overload protection is not allowed.

3.1.1.4 SOLAS Chapter II-1/31 - Machinery Controls

All automatic, remotely controlled, or monitored vital systems addressed in $\frac{46 \text{ CFR Part } 62}{40 \text{ CFR Part } 62}$ must have approved Design Verification and Periodic Safety test procedures available onboard for testing prior to issuance of the initial COI.

Propulsion safety trip control systems must not operate as a result of failure of the normal electric power source unless it is determined to be the failsafe state.

Sensors for the primary speed, pitch or direction of rotation control in closed loop propulsion control systems must be independent and physically separate from required safety, alarm or instrumentation sensors.

3.1.1.5 SOLAS Chapter II-1/42 & 43 – Emergency Source of Electrical Power in Passenger and Cargo Ships

The Coast Guard has not delegated authority to ROs to approve the use of an emergency generator during lay time in port. Instead, final approval of the system for periodic use in port is subject to plan approval by the Marine Safety Center and acceptance of the installation by the cognizant OCMI. All aspects of the emergency power system must be addressed in the Qualitative Failure Analysis, Design Verification Testing, and Periodic Safety Test Procedure, and the system is subject to the requirements of IMO MSC.1 Circular 1464/Rev. 1 – Section 6.

A stop control for an emergency generator must be only in the space that has the emergency generator, except a remote mechanical reach rod is permitted for the fuel oil shutoff valves to an independent fuel oil tank located in the space.

There must be visible indicators in the machinery space to show when the automatically controlled emergency power source is supplying the emergency loads.

The emergency generator set must shut down automatically upon loss of lubricating oil pressure, overspeed, or operation of a fixed fire extinguishing system in the emergency generator room.

3.1.1.6 SOLAS Chapter II-1/45 – Precautions against Shock, Fire, and Other Hazards of Electrical Origin

IEC certificated safe equipment must be tested or approved under the IECEx scheme and the certification body must be recognized by the Commandant. Certification under the ATEX scheme is not acceptable.

All electrical installations in hazardous locations must comply with the general requirements of IEC 60092-502: 1999 "Electrical installations in ships- part 502: tankers," and with Coast Guard interpretations and additional requirements, issued by the Coast Guard in April 2009, which are maintained on the Coast Guard's website.⁷

3.1.1.7 SOLAS Chapter II-1/46 – Additional Requirements for Periodically Unattended Machinery Spaces: General

Minimally attended and periodically unattended machinery spaces must be provided with a personnel alarm that must sound on the navigating bridge if not routinely acknowledged at the centralized control station or in the machinery space.

A fire detection and alarm system must be provided for minimally attended and periodically unattended machinery plants, and must activate all alarms at the centralized control station, the navigating bridge, and throughout the machinery spaces and engineer's accommodations.

3.1.2 SOLAS Chapter II-2 Construction – Fire Protection, Fire Detection and Fire Extinction

3.1.2.1 SOLAS Chapter II-2/4.2.2.5.1 - Fuel Oil Piping

The use of heat-sensitive materials 8 is prohibited in piping systems conveying flammable or combustible products.

3.1.2.2 SOLAS Chapter II-2/5.3 – Fire Protection Materials

Combustible insulation for pipes of cold service systems is approved on a case-by-case basis by CG-ENG's Lifesaving and Fire Safety Division. See Section 3.3 for more information about Type Approvals.

3.1.2.3 SOLAS Chapter II-2/7.2 & FSS Code Chapter 9 – Fixed Fire Detection and Fire Alarm Systems

In cable runs, a conductor must not be used as a common return from more than one zone.

Each connection box must be constructed in accordance with NEMA 250 Type 4 or 4X, or IEC IP 56 of IEC 60529 requirements.

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.

⁷ See U.S. Coast Guard Interpretation: IEC 60092-502:1999 Supplement.

⁸ Heat sensitive materials are those having a solidus melting point below 1700° F.

The detectors, control panel, manual call points, and alarms must be listed in the approved component list for the Coast Guard approved system.

Zoning:

- The fire detection zone must not include spaces on more than one deck, except—
 - Adjacent and communicating spaces on different decks at the ends of the vessel having a combined ceiling area of not more than 3,000 sq. ft.;
 - Isolated rooms or lockers in such spaces as mast houses or wheelhouse tops, which are easily communicable with the area of the fire detection circuit to which they are connected; and
 - Systems with addressable detectors and manual alarm stations that can have their status individually determined.
- Any fire detection zone with non-addressable detectors and manual pull stations must not contain more than 25 protected rooms or spaces.

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.

3.1.2.4 SOLAS Chapter II-2/7.2 & FSS Code Chapter 9.2.4 – Fixed Fire Detection and Fire Alarm Systems – Installation Requirements

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

Detector spacing must 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 72.

3.1.2.5 SOLAS Chapter II-2/9.2.3.1 – Methods of Protection in Accommodation Area (Cargo ships except tankers)

Only Method IC is acceptable. Methods IIC and IIIC are not permitted.

3.1.2.6 SOLAS Chapter II-2/9.2.3.3 – Fire Integrity of Bulkheads and Decks

No compartment that has an emergency power source or its vital components may adjoin a Category A machinery space or those spaces containing the main source of electrical power and its vital components.

3.1.2.7 SOLAS Chapter II-2/10.2.1.1 - Fire Main and Hydrants

Material selection for piping and components must be in accordance with <u>46 CFR 56.60</u> or ASTM F1155. Brass or bronze materials may be used in accordance with these standards.

Valves employing resilient material may be used in fire main systems provided they are Coast Guard acceptable Category "A" or positive shutoff valves.

3.1.2.8 SOLAS Chapter II-2/10.2.3.1.1 – Fire Hoses and Nozzles – General Specifications

Each section of fire hose must be lined commercial fire hose that conforms to Underwriters' Laboratories, Inc. Standard 19 or Federal Specification ZZ-H-451E.

3.1.2.9 SOLAS Chapter II-2/10.2.3.2.1 – Fire Hoses and Nozzles – Number and Diameter of Fire Hoses

The minimum hydrant and hose size is 40 mm (1.5 in.).

On passenger and cargo ships over 1500 gross tons, the minimum hydrant and hose size for interior and exterior locations is 65 mm (2.5 in.). For interior locations, where 65 mm (2.5 in.) hydrants and

hose are required, two 40 mm (1.5 in) outlets with two 40 mm (1.5 in) hoses supplied through a splitter may be substituted.

On tankships over 125 m (400 ft. (L.O.A.)), the minimum hydrant and hose size for exterior locations is 65 mm (2.5 in.). Where 65 mm (2.5 in) hydrants and hose are required, two 40 mm (1.5 in) outlets with two 40 mm (1.5 in) hoses supplied through a splitter may be substituted. Please note that two hoses are required at exterior fire stations equipped with splitter fittings.

Where two 40 mm (1.5 in) hydrants and hoses are permitted instead of one 65 mm (2.5 in) hydrant and hose, both of the outlets operating simultaneously are to be considered as a single outlet to comply with the minimum number of jets criteria for fire pump capacity.

3.1.2.10 SOLAS Chapter II-2/10.3 & FSS Code Chapter 4 – Portable Fire Extinguishers ⁹

Note: Portable fire extinguishers are approved by the Coast Guard based on their performance and not by the quantity of the agent. 10

Tank ships, as defined by Title 46 CFR, must maintain portable and semiportable fire extinguishers in accordance with 46 CFR 34.50.

Passenger vessels, as defined by Title 46 CFR, must maintain portable and semiportable fire extinguishers in accordance with 46 CFR 76.50.

Cargo and Miscellaneous vessels, as defined by Title 46 CFR, must maintain portable and semiportable fire extinguishers in accordance with $\frac{46 \text{ CFR } 95.50-10}{40 \text{ CFR } 95.50-10}$.

Mobile Offshore Drilling Units, as defined by Title 46 CFR, must maintain portable and semiportable fire extinguishers in accordance with <u>46 CFR 108.495</u>.

Offshore Supply Vessels, as defined by Title 46 CFR, must maintain portable and semiportable fire extinguishers in accordance with 46 CFR 132.220.

3.1.2.11 SOLAS Chapter II-2/10.4 – Fixed Fire-Extinguishing Systems

CO₂ systems must have lock-out valves and odorizing units.

3.1.2.12 SOLAS Chapter II-2/10.5.4 – Fire-Extinguishing Arrangements in Machinery Spaces – Other Machinery Spaces

A CO_2 system is required in a ventilation system where an enclosed ventilation system serves an electric propulsion motor or generator.

3.1.2.13 SOLAS Chapter II-2/10.6 – Automatic Sprinkler, Fire Detection and Fire Alarm Systems for Accommodation and Service Spaces

Note: Water mist systems are not considered to be automatic sprinkler systems, and are covered by Coast Guard Type approval as water mist systems.

⁹ <u>CVC Policy letter 18-04</u> lists the needed size and location of portable fire extinguishers based on relevant Title 46 CFR regulations and vessel type.

¹⁰ See <u>81 FR 48219</u> Section II Part B for additional information.

Automatic sprinkler systems must also comply with National Fire Protection Association (NFPA) Standard 13-1996. Where SOLAS Reg. II-2/12 and NFPA Std. 13 have similar requirements, the more stringent standard is to be satisfied.

The sprinkler heads, alarms, dry pipe valves, and actuating mechanisms must be listed or approved by a recognized independent testing lab as complying with chapter 25 of NFPA Std. 13.

3.1.2.14 SOLAS Chapter II-2/10.6.4 – Fire-extinguishing Systems for the Protection of Deep-Fat Cooking Equipment

Fire-extinguishing systems for the protection of deep-fat cooking equipment which are UL listed (UL 300 Standard) or meet ISO 15371 are considered acceptable for U.S. flag vessels and are to follow the approved manufacturer's manual.

3.1.2.15 SOLAS Chapter II-2/10.8 & FSS Code Chapter 14 – Fixed Deck Foam System

Fixed deck foam systems, in addition to being Coast Guard approved, must meet the requirements contained in 46 CFR 34.20.

3.1.2.16 SOLAS Chapter II-2/11 – FRP Gratings on Open Deck

For vessels fitted with fixed deck firefighting systems (e.g. foam or powder systems), FRP gratings in platforms and access ways for firefighting equipment must be class L1 (Ref. NVIC 9-97 CH-1). Approval requirements are in CG-ENG Policy Letter 01-18.

3.1.2.17 SOLAS Chapter II-2/11.6 – Pressure-Vacuum Relief Valves for Cargo Tanks

Pressure-vacuum relief valves for cargo tanks must be Coast Guard type-approved in accordance with 46 CFR 162.017.

3.1.2.18 SOLAS Chapter II-2/13 – Means of Escape

The doors giving access to either of the two required means of escape must not be lockable, except that crash doors or locking devices, capable of being easily forced in an emergency, may be employed provided that a permanent and conspicuous notice giving instructions on how to open the door or the lock is attached to both sides of the door. This paragraph does not apply to outside doors to deckhouses where such doors are locked by key only, and such key is under control of one of the vessel's officers.

All public spaces having a deck area of over 28 m^2 (300 ft^2) must have at least two exits. Where practicable, the exits must give egress to different corridors, spaces, or rooms to minimize the possibility of one incident blocking both means of escape.

All interior stairways, other than those within the machinery spaces or cargo holds, must have a minimum width of 0.71 m (28 in.). The angle of inclination with the horizontal of such stairways must not exceed 50° .

3.1.2.19 SOLAS Chapter II-2/14 – Operational Readiness and Maintenance

Tank ships, as defined by Title 46 CFR, must maintain and test fire extinguishing systems in accordance with 46 CFR 31.10-18.

Passenger vessels, as defined by Title 46 CFR, must maintain and test fire extinguishing systems in accordance with 46 CFR 71.25-20.

Cargo and Miscellaneous vessels, as defined by Title 46 CFR, must maintain and test fire extinguishing systems in accordance with $\underline{46\ \text{CFR}\ 91.25-20}$.

Mobile Offshore Drilling Units, as defined by Title 46 CFR, must maintain and test fire extinguishing systems in accordance with 46 CFR 107.235.

Offshore Supply Vessels, as defined by Title 46 CFR, must maintain and test fire extinguishing systems in accordance with 46 CFR 132.350.

3.1.2.20 SOLAS Chapter II-2/18.3.2 – Aluminum Helidecks

NVIC 9-97 CH-1 describes the conditions under which aluminum helidecks will be accepted on board U.S. flag vessels.

3.1.3 SOLAS Chapter III Life-Saving Appliances and Arrangements

3.1.3.1 SOLAS Chapter III/7 – Personal Life-Saving Appliances

Each child-sized lifejacket and immersion suit must be appropriately marked and stowed separately from adult or extended-size devices.

Each lifejacket and immersion suit must be marked with the vessel's name.

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

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).

3.1.3.2 SOLAS Chapter III/11 – Survival Craft Muster and Embarkation Arrangements

If a davit-launched survival craft is not intended to be moved to the stowed position with persons on board, the craft must be provided with a means for bringing it against the side of the vessel and holding it alongside the vessel to allow persons to safely disembark after a drill.

3.1.3.3 SOLAS Chapter III/13 – 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, taking into account the height of the stowage location at maximum freeboard.

A liferaft stowage arrangement meets the above requirement if it:

- is outboard of the rail or bulwark;
- is on stanchions or a platform adjacent to the rail or bulwark; or
- has a gate or other suitable opening large enough to allow the liferaft to be pushed directly overboard and, if the liferaft is intended to be available for use on either side of the vessel, such gate or opening is provided on each side of the vessel.

On a tank vessel certificated to carry cargoes that have a flashpoint less than 60°C (140°F) as determined under ASTM D93-94, each lifeboat or launching appliance of aluminum construction must be protected by a water spray system meeting the requirements of 46 CFR 34.25.

3.1.3.4 SOLAS Chapter III/20 – Operational Readiness, Maintenance and Inspections

The proper condition and operation of the survival craft and rescue boat launching appliances at loads ranging from light load to 10 percent overload must be carried out whenever a wire fall for a launching appliance is replaced or turned end-for-end.

3.1.3.5 SOLAS Chapter III/34 – Life-saving appliances and arrangements requirements

Each item of lifesaving equipment required by Regulation 34 must be approved by the Coast Guard.
Additional equipment carried beyond minimum carriage requirements must either be approved by the Coast Guard or be accepted by the cognizant OCMI for use on the vessel.

Each unguarded fall must not pass near any operating position of the winch, such as hand cranks, payout wheels, and brake levers.

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

Each fall must have guards or equivalent protection where exposed to damage or fouling. Each fall that leads along a deck must be covered with a guard that is not more than 300 mm (12 inches) above the deck.

Each winch drum must be arranged so the fall wire winds onto the drum in a level wrap.

3.1.4 SOLAS Chapter IV Radio Communications

Additional requirements for radio communications on U.S. flag vessels are found in <u>Title 47 CFR</u>, Telecommunication. <u>Title 47 CFR</u> requirements are not unique to vessels enrolled in the ACP and apply to all U.S. vessels subject to the applicability of each individual requirement.

3.1.5 SOLAS Chapter V Safety of Navigation

In addition to the supplemental requirement below, additional requirements for the safety of navigation on U.S. flag vessels are found in <u>Title 33 CFR</u>, Navigation and Navigable Waters. <u>Title 33 CFR</u> requirements are not unique to vessels enrolled in the ACP and apply to all U.S. vessels subject to the applicability of each individual requirement.

3.1.5.1 SOLAS Chapter V/22 – Navigation Bridge Visibility

In addition to the SOLAS implementation schedule, this regulation applies to all cargo and passenger vessels of 100 m or more in length and contracted for on or after September 7, 1990.

3.1.6 SOLAS Chapter VII Carriage of Dangerous Goods

In addition to the supplemental requirements below, additional requirements for the carriage of dangerous goods on U.S. flag vessels are found in <u>Title 33 CFR</u>, Navigation and Navigable Waters, and <u>Title 49 CFR</u>, Transportation. <u>Title 33 CFR</u> and <u>Title 49 CFR</u> requirements are not unique to vessels enrolled in the ACP and apply to all U.S. vessels subject to the applicability of each individual requirement.

ACP vessels which meet the applicability found in $\underline{46\ CFR\ 153.1}$ for ships carrying bulk liquid, liquefied gas, or compressed gas hazardous materials must meet the requirements in $\underline{46\ CFR\ 153}$. Additionally, guidance for the implementation of revisions to MARPOL Annex II and the IBC Code can be found in NVIC 03-06.

3.1.6.1 SOLAS Chapter VII Regulation 13 – Requirements for Gas Carriers

The requirements in $\frac{46 \text{ CFR } 154}{46 \text{ CFR } 154}$ apply to each self-propelled ACP vessel that has on board bulk liquefied gases as cargo, cargo residue or vapor, except subpart C does not apply if the vessel meets $\frac{46 \text{ CFR } 154.12}{46 \text{ CFR } 154.12}$ (b), (c), or (d).

¹¹ See also: <u>46 CFR 2.75</u> Approvals of Safety Equipment, Materials et al.; <u>46 CFR 159.003</u> – Approval under Mutual Recognition Agreement; and <u>NVIC 02-19</u> "Guide to Marine Equipment Approvals Covered by a Mutual Recognition Agreement".

3.1.7 Additional Supplemental Requirements	
The requirements of $\frac{46 \text{ CFR Part } 39}{46 \text{ CFR } 39.1001}$ are applicable to vapor control systems subject to the afound in $\frac{46 \text{ CFR } 39.1001}{46 \text{ CFR } 39.1001}$.	applicability
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3.2 Supplemental Requirements and Interpretations Related to the International Convention for the Prevention of Pollution from Ships (MARPOL)

The requirements found in <u>Title 33 CFR</u> are in addition to the applicable requirements of MARPOL and the RO's rules. <u>Title 33 CFR</u> requirements are not unique to vessels enrolled in the ACP and apply to all U.S. vessels subject to the applicability of each individual requirement.

3.3 Coast Guard Type Approvals

The Coast Guard must approve equipment, materials, or installations required by International Convention or Code. The regulations in <u>46 CFR 2.75</u> address Coast Guard authority over approvals of safety equipment, materials and installations, and the regulations in <u>46 CFR 159.003</u> address Coast Guard approval pursuant to a Mutual Recognition Agreement (MRA). Neither these regulations nor <u>46 CFR Part 8</u> provide the regulatory authority to delegate type approval functions to a classification society. Therefore, the type approval certificates of the class society for the vessel enrolled in ACP cannot be used to meet Coast Guard type approval where required by U.S. regulations. For U.S. flag vessels, the Coast Guard issues type approvals for a variety of equipment and materials including fire suppression equipment, structural fire protection materials, navigation equipment, pollution prevention equipment, and life-saving appliances, generally through independent laboratory testing, inspection, and oversight.

While the Coast Guard recognizes some class societies to perform the role of an independent laboratory, per <u>46 CFR 159.010</u>, it is a separate and distinct regulatory program from the ACP. Class societies accepted by the Coast Guard to perform functions under both the ACP and independent laboratory programs do not have the unique authority to make decisions on behalf of the Coast Guard in matters related to Coast Guard type approval or regarding the modification to installed equipment holding Coast Guard approval.

All Coast Guard approved equipment receives an approval number and must be permanently marked with that number. The first six digits of an approval number assigned by the Coast Guard are the approval series. Where approval is based on a subpart of <u>46 CFR Subchapter Q</u> (i.e., Parts 159 to 164), the approval series corresponds to the number of the subpart.

Where a piece of particular equipment, material, or installation is required, the Commandant (CG-ENG or CG-OES) or the Commanding Officer, Marine Safety Center, must accept it as at least as effective as that specified. This acceptance authority is not delegated to the class society under the ACP. If necessary, the Commandant (CG-ENG or CG-OES), may require engineering evaluations and tests to demonstrate the equivalence of the substitute equipment, materials, or installation.

Life-saving appliances carried on board the ship in addition to the equipment of the type required under this part must be approved equipment or be acceptable to the cognizant OCMI for use on the ship.

<u>CGMIX</u> provides a listing of current and formerly-approved equipment and materials. <u>CGMIX</u> is a publically-available, searchable database maintained by the Coast Guard. <u>CGMIX</u> only lists products approved by the Coast Guard and does not include those products approved under any MRA.

<u>NVIC 02-19</u>, "Guide to Marine Equipment Approvals Covered by a Mutual Recognition Agreement (MRA)," lists the equipment that may be Coast Guard approved under an MRA.

3.3.1 Coast Guard Type Approval Series for Statutory Certificates

Products marked with an approval number containing one of the following Coast Guard approval series must be used on vessels enrolled in the ACP:

Life Saving Appliances	
160.017	Embarkation-Debarkation Ladders (only if marked "SOLAS 74/83")
160.040	Line-Throwing Appliances
160.115	Launching Appliances – Winches
160.118	Rigid Liferafts
160.121	Hand Red Flares
160.122	Floating Orange Smoke Signals
160.132	Launching Appliances – Davits
160.133	Release Mechanisms (on-load/offload) for Lifeboats and Rescue Boats
160.135	Lifeboats ¹²

¹² Replacement of a release hook installed in a Coast Guard approved lifeboat constitutes a modification of approved equipment and may not be undertaken without prior approval from the Commandant (CG-ENG).

160.136	Rocket Parachute Flares
100.136	
160.150	Ring Life Buoys
160.151	Inflatable Liferafts
160.155	Lifejackets
160.156	Rescue Boats
160.157	Self-Activating Smoke Signals
160.162	Hydrostatic Release Units
160.163	Liferaft Launching Appliance
160.170	Liferaft Automatic Disengaging Apparatus
160.171	Immersion Suits
160.174	Thermal Protective Aids
160.175	Marine Evaluation Systems
160.176	Inflatable Lifejackets (SOLAS)
161.010	Floating Electric Water Lights
161.012	Lifejacket Lights
163.003	Pilot Ladders

Interior Finishes and Furnishings	
164.106	Primary Deck Coverings (SOLAS)
164.109	Non-Combustible Materials (SOLAS)
164.111	Draperies, Curtains & Other Suspended Textiles (SOLAS)
164.112	Interior Finish (Bulkheads and Ceiling Finishes) (SOLAS)
164.117	Floor Finishes (SOLAS) (aka Floor Coverings)
164.141	Plastic Pipes
164.142	Bedding Components
164.144	Upholstered Furniture
164.201	Fire-Resisting Materials for High-Speed Craft (aka Fire Restricting Materials)

Combustible Insulation for Cold Service Piping (Approval Series 164.143) is approved on a case-by-case basis by the Commandant (CG-ENG).

Structural Fire Pro	Structural Fire Protection (Fire resistant divisions)	
164.105	Deck Assemblies (A-60) (SOLAS)	
164.107	Structural Insulation (A-60) (SOLAS)	
164.108	Bulkheads (B-0 and B-15) (SOLAS)	
164.110	Continuous Ceilings (SOLAS)	
164.136	Fire Doors	
164.137	Windows	
164.138	Fire Stops (Penetration Seals)	
164.139	Dampers	
164.140	Penetration Seals H-Class	
164.146	Fire Door Control Systems (SOLAS)	
164.207	Fire-Resisting Divisions for High-speed Craft	
164.236	Doors H-Class	
164.237	Windows H-Class	
164.307	Structural Insulation H-Class	

Fire Suppression ¹³	
162.027	Combination Fire Hose Nozzles
162.028	Portable Fire Extinguishers (PFE) ¹⁴
162.029	Fixed Fire Extinguishing Systems (Pre-Engineered) ¹⁵
162.033	Foam Type Fire Extinguishing Systems
162.035	Halon 1301 Type Fire Extinguishing Systems (Obsolete)
162.038	Carbon Dioxide Type Fire Extinguishing Systems
162.039	Semi-Portable Marine Type Fire Extinguishers
162.127	Fire Monitors and Nozzles
162.135	Water Mist Fire Extinguishing Systems
162.136	Water Spray Systems for Machinery Spaces (IMO)
162.138	Water-Based Fire Systems for Vehicle Spaces (IMO)
162.161	Engineered Halocarbon Fire Ext. Systems (and Clean Agent Fire Ext. Systems)
162.162	Engineered Inert Gas Fire Extinguishing Systems

Fire Detection Systems		
161.002	Fire Detection Systems	

Other Systems	
159.015	Sewage Pollution Prevention Equipment
162.017	Pressure-Vacuum Relief Valve for Tank Vessels
162.018	Liquefied Compressed Gas Safety Relief Valve
162.050	Pollution Prevention Equipment (OWS)
162.050	Pollution Prevention Equipment (Bilge Alarm)
162.055	Oil Water Interface Detectors
162.060	Ballast Water Management Systems
162.063, 63	.25-9 Incinerators

Navigation	
165.101	Magnetic Compasses
165.102	Transmitting Heading Devices (THD) (formerly Electromagnetic Compass)
165.103	Gyrocompasses
165.105	Speed and Distance Measuring Equipment (SDME)
165.106	Rate of Turn Indicator
165.107	Echo-Sounding Equipment
165.110	Heading Control System
165.112	Track Control System
165.115	Shipborne Radar - Category 1 (Category 1C with Chart Option)
165.116	Shipborne Radar - Category 2 (Category 2C with Chart Option)
165.117	Shipborne Radar - Category 3 (Category 3C with Chart Option)
165.123	Electronic Chart Display and Information System (ECDIS)
165.124	ECDIS Back-up Equipment

¹³ Fixed fire suppression systems must be designed, constructed, and installed in accordance with the terms of the Coast Guard Certificate of Approval (COA) including any drawings, specifications, or manuals referenced on the COA.

¹⁴ Performance based PFF are discussed in CVC Policy Letter 18-04

Performance based PFE are discussed in <u>CVC Policy letter 18-04</u>.
 In accordance with <u>46 CFR 95.16</u>, the design and installation must be in accordance with the Coast Guard Type Approved manufacturer's manual. The requirements of <u>46 CFR 95.16</u> apply to all Fixed Fire Extinguishing Systems on ACP vessels. Where SOLAS and the Coast Guard Type Approved manufacturer's manual have dissimilar requirements (such as agent required calculations) the higher standard is to be satisfied.

165.130	Global Positioning System (GPS) Equipment
165.131	Global Navigation Satellite System (GLONASS) Equipment
165.132	Maritime Radio Beacon Receiver Equipment for Differential Global Position
-	m (DGPS) Equipment
165.133 Satell	Maritime Radio Beacon Receiver Equipment for Differential Global Navigation ite System (DGLONASS) Equipment
165.134	Combined Global Position System and Global Navigation Satellite System
	(GLONASS) Receiver Equipment
165.137	Galileo Receiver Equipment
165.141	Integrated Navigational System
165.142	Bridge Navigational Watch Alarm System (BNWAS)
165.150	Voyage Data Recorder (VDR)
165.151	Simplified Voyage Data Recorder (S-VDR)
165.155	Shipborne Automatic Identification System (AIS)
165.160	Radar Reflector
165.165	Sound Reception System
165.166	Daylight Signaling Lamp
165.167	Rudder Angle Indicator
165.168	Propeller Revolution Indicator
165.169	Pitch Indicator
165.203	Gyrocompass for High Speed Craft
165.207	Long Range Information Tracking (LRIT)
165.210	Heading Control System for High Speed Craft (Formerly Automatic Pilot)
165.216	Shipborne Radar - Category 1H for High Speed Craft (Category 1HC with Chart
Option	
165.217	Shipborne Radar – Category 2H for High Speed Craft (Category 2HC with Chart
Option	
165.251	Night Vision Equipment for High Speed Craft
165.252	Searchlight for High Speed Craft

3.3.2 Items not type approved by the Coast Guard

- (a) Breathing Apparatus are not type approved. They must be NIOSH-approved as pressure demand, open circuit, self-contained type, of 30-minute duration and with a full face piece. (Ref: 46 CFR 77.35-5(b) and 46 CFR 96.30-5).
- (b) Firefighting outfits are not type approved. They must meet NFPA 1971, Standard on Protective Ensemble for Structural Fire Fighting (Ref: NVIC 6-01).
- (c) Firehoses are not type approved. They must be lined commercial firehose that conforms to Underwriters' Laboratories, Inc. Standard 19 or Federal Specification ZZ-H-451E. Hose that bears the label of Underwriters' Laboratories, Inc. as lined firehose is accepted as conforming to this requirement. (Ref: 46 CFR 34.10-10 and 46 CFR 95.10-10).
- (d) Emergency Escape Breathing Devices (EEBD) are not type approved. They must meet Enclosure (2) of NVIC 6-02.

4 RECORD OF REVISIONS

Date	Revision
	<u> </u>

APPENDIX 1: U.S. SUPPLEMENT REVISION PROCESS

Purpose

To provide a procedure for the maintenance of the U.S. Supplement for U.S. flag vessels enrolled in the ACP.

Action

The Coast Guard, in consultation with ACP-authorized ROs, will maintain the U.S. Supplement so that it remains relevant with changes in vessel technology, design, and construction practices.

Maintenance of the U.S. Supplement

Maintenance of the U.S. Supplement consists of an annual review of the current supplement and a review of suggested changes compiled throughout the previous year. Accepted changes during the annual review are published in the U.S. Supplement as needed.

IMO actions may lead to harmonization or divergence of the requirements in IMO instruments and those in U.S. regulations. The U.S. delegation to the IMO meeting will notify the Supplement Manager, at flagstatecontrol@uscg.mil, if an IMO action affects the critical ship safety systems referenced in Section 1.6.

ROs may request that the U.S. Supplement be updated when discrepancies are found between the U.S. Supplement and IMO instruments, IACS requirements, or U.S. regulations. RO requests should be addressed to the Supplement Manager at flagstatecontrol@uscq.mil.

Coast Guard stakeholders, such as OCMIs, the Commanding Officer, Marine Safety Center, and headquarters offices including but not limited to CG-ENG and CG-OES, may request that the U.S. Supplement be revised when discrepancies are found between the U.S. Supplement and IMO instruments, IACS requirements, or U.S. regulations. Requests should be addressed to the Supplement Manager at flagstatecontrol@uscq.mil.

Proposed Changes to the U.S. Supplement

Once a discrepancy between the U.S. Supplement and an IMO instrument, IACS requirement, or U.S. requirement is submitted, the Supplement Manager will conduct a review of the request. This review is to gain a complete understanding of the discrepancy so the appropriate action can be taken to resolve the discrepancy. For each request, the Supplement Manager will complete a Coast Guard Corrective Action Request (CAR), Coast Guard form CG-5200.1, for the needed change.

The Supplement Manager will continually work with the appropriate Coast Guard Subject Matter Experts to assess each CAR to determine if the discrepancy changes the gap addressed by the U.S. Supplement. If it does, the needed change will be included in the next U.S. Supplement revision.

Determining Critical Ship Safety Systems for Inclusion in the U.S. Supplement

Critical ship safety systems included in the U.S. Supplement are those systems whose failure in whole or in part would pose immediate risk to the crew, vessel, or the environment, and, in the opinion of the Coast Guard, are not adequately covered by IMO instruments or IACS requirements.

Criteria considered when determining which critical ship safety systems are to be included in the U.S. Supplement:

- 1. Would failure of the item pose immediate risk to the crew, vessel, or the environment?
- 2. Does the item deal with Type Approval of equipment?
- 3. Is the item addressed in Title 46 CFR?
- 4. Was there a recent casualty, identified casualty trend, or Coast Guard safety recommendation which requires the item to be addressed?
- 5. Is there a technical study by an RO, Administration, or technical society that cites a gap in U.S. statute or regulation, or international convention or code?

Publishing U.S. Supplement Revisions

Following the release of a U.S. Supplement revision, the Supplement Manager will draft and publish a Marine Safety Information Bulletin (MSIB). The MSIB will announce the revised U.S. Supplement and summarize the changes. All U.S. Supplements are published on the Flag State Control website: Alternate Compliance Program.