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Mention of source will be appreciated.

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COUNCIL ACTIVITIES

Hearing for Proposed Changes in Regulations

The Merchant Marine Council will hold the semiannual meeting in room 4120, Coast Guard Headquarters, Thirteenth and E Streets NW., Washington, D. C., commencing with a public hearing at 9:30 a. m. March 30, 1948. At this hearing the Council will receive comments on the proposed changes in regulations which it will consider. A tentative agenda for this hearing is as follows:

1. Amendments to regulations governing the transportation, storage, and stowage of spent sulfuric acid, anhydrous ammonia, and compressed gas.

2. Amendments to tank vessel regulations to clarify their intent, effect editorial changes, establish additional safety requirements, and to permit certain practices to be employed in the constructions, repair, and operation of tank vessels.

3. Amendments to regulations regarding fire alarm zoning in passenger and cargo vessels.

4. Specification for backfire flame arrestors for carburetors for merchant vessels and motorboats.

5. Specification for standard kapok buoyant cushions.

6. Specification for nonstandard buoyant cushions.

7. Specification for cork and balsa wood ring life buoys.

8. Specification for sheet cork.

9. Specification for balsa wood.

10. Amendments to regulations concerning buoyant cushions, ring life buoys, sheet cork, balsa wood, and parachute flare distress signals.

11. Amendments to "Marine Engineering Regulations and Material Specifications" re approval of plans for boilers, pressure vessels and appurtenances, materials and workmanship, class I piping, flange standards, piping, pumping arrangements, types of welded joints, cylindrical boiler shells with longitudinal lap-riveted seams, and construction of cast iron heating boilers.

The proposed changes in the regulations are described generally in the following paragraphs. Comments may be submitted in writing prior to the public hearing or orally or in writing at the hearing. All comments received are made a part of the record and will be considered by the Council before recommending any changes to the Commandant.

DANGEROUS CARGO REGULATIONS

The proposed amendments to regulations governing the transportation, storage, stowage, or use of explosives or other dangerous articles or substances and combustible liquids on board vessels affect the regulations published in Subchapter N of Title 46, Code of Federal Regulations.

One of the major users of sulfuric acid has petitioned the Coast Guard to amend the dangerous cargo regulations in order to authorize the bulk

transportation of sulfuric and spent acid of a specific gravity lower than now permitted to be carried in rubber or lead lined independent tanks or lined tanks where the bulkhead may form a part of the tank. In compliance with the request it is proposed to amend section 146.23–10, *Sulfuric and spent acid in bulk*, to permit the transportation of sulfuric and spent acid in bulk of a specific gravity lower than 65° Baumé in lead or rubber lined tanks forming an integral part of the structure of the vessel or in independent lined tanks.

A compressed gas as defined in section 146.24–2, *compressed gas defined*, of the Coast Guard dangerous cargo regulations was originally based on the definition as set forth in section 300 of the Interstate Commerce Commission's regulations. In view of the fact that section 300 has been amended, it is proposed to revise section 146.24–2 in order to bring the present definition of a compressed gas in agreement with the definition given in supplement No. 16 of Interstate Commerce Commission's regulations for transportation of explosives and other dangerous articles by freight.

One of the major chemical producers and shippers of anhydrous ammonia has petitioned the Coast Guard to amend the regulations so as to authorize the movement by water of anhydrous ammonia in independent pressure vessel type containers secured to tank vessels. In compliance with the request it is proposed to add an additional section entitled, "anhydrous ammonia in bulk" and designated as section 146.24–16 and also to amend section 146.24–100, *Table G. Classification: Compressed Gases.* The proposed regulations will permit the transportation of anhydrous ammonia by tank barge or self-propelled vessel in either refrigerated or non-refrigerated containers provided the installation meets the requirements therein.

TANK VESSEL REGULATIONS

It is proposed to amend certain sections of the tank vessel regulations (subchapter D, parts 30 to 35, inclusive, and 38, title 46, Code of Federal Regulations) in order to clarify the intent of the existing regulations, effect editorial changes, establish additional safety reqirements on the basis of experience obtained from operation, and permit certain practices employed by the industry in the construction, repair and operation of tank vessels. Additional safety requirements which experience indicates to be desirable covering the construction and alterations of tank vessels for the transportation of liquefied petroleum gases have been added.

Amend section 30.3, *Definition of terms*, by revising the definition of "cofferdam" to cover certain dry cargo spaces which meet the requirements and by transferring the definition of "tankerman" from section 31.4–1 (b) to this section.

Amend part 31, *Inspection and certification*, by (1) referring to the filing of the rules of the American Bureau of Shipping in the Division of the Federal Register, indicating date of latest approval of ABS rules and furnishing source of information regarding adoption of ABS rules by the Commandant, and by (2) altering manning requirements for oil barges on voyages in the Gulf of Mexico and coastwise.

Amend subpart 32.1, *Hull and hull fittings; general*, by providing toilet and washing facilities for members of the crew not otherwise provided for in the present regulations. Amend subpart 32.2, *Hull requirements, new tank vessels*, by (1) rescinding requirements for horizontal cofferdams covering the transportation of grade D liquid below hold spaces and (2) requiring that a cargo pump room used as the equivalent of a cofferdam be provided with an access from the open deck when grades A, B, C, or D liquids are being handled. Amend subpart 32.5, *Boilers and machinery*, by simplifying regulation covering installation of fuel-oil systems and broadening the scope of tests and inspection of boilers and equipment to cover unfired pressure vessels, piping systems and appurtenances, as well as boilers by cross-reference to parts 50 to 57 of subchapter F. Amend subpart 32.7, *Ventilation and venting*, by requiring means for draining vent header system and permitting alternate methods of venting cofferdams by use of natural ventilation so arranged as to be acceptable to the Coast Guard. Amend subpart 32.8, *Cargo pumps and cargo piping*, by permitting cargo piping carrying grade E liquids only to pass through shaft alleys and machinery spaces of existing vessels and by permitting the omission of relief valves on cargo pump where the shut-off head is 125 pounds or less. Amend section 32.9–10, *Cargo hose*, by requiring the hose to be designed for the shut-off head of the cargo pump or pump relief valve setting.

Amend part 33, *Lifesaving appliances*, by requiring a pair of lifeboats at the amidship and a pair at the aft accommodations and by rescinding the requirements that mast and sails on lifeboats be provided for Great Lakes tank ships.

Amend section 34.2–4, *Location of fire pumps*, by permitting conversions made during the national emergency on Liberty and C1A cargo vessels to have both fire pumps located in the same compartment provided the compartment is equipped with an approved CO_2 fire extinguishing system. Amend subpart 34.3, *Fire equipment for cargo space*, by permitting the master control valve for fire-extinguishing systems to be installed in any accessible location above the freeboard deck, and by requiring control valves in the steam fire-extinguishing systems to prohibit interconnections between cargo tanks and dry spaces carrying explosive vapors and to provide suitable precautions against accidental release of steam in pump room. Amend section 34.5–6, *hand fire extinguishers—number required on tank ships*, by revising the re-

SURPLUS GOVERNMENT VESSELS

Many veterans and private citizens are purchasing boats from the United States Maritime Commission or the War Shipping Administration under the Surplus Property Act with the intention of using them to carry passengers for hire. Before surplus vessels are purchased for the purpose of carrying passengers for hire, it is suggested that the requirements of the Coast Guard regulations and the navigation and vessel inspection laws be reviewed and full information obtained as to their application to the vessel or boat under consideration.

In many cases to date, vessels have been awarded or have been purchased without any knowledge of the laws and regulations regarding passenger carrying vessels, and in some cases the purchasers have been disappointed to learn that the vessels may not be certificated for the purpose intended without undergoing considerable alterations to comply with the laws and regulations. In addition, many were surprised to learn that certain vessels of above 15 gross tons and in excess of 65 feet in length carrying passengers for hire may not be operated without such officers and crew as are found necessary for their safe navigation.

The Coast Guard will make every effort to acquaint purchasers of surplus vessels with the requirements of the laws and regulations governing the inspection, manning, and safety requirements applicable thereto. The commanders of all Coast Guard districts, as well as officers in charge, marine inspection, United States Coast Guard, are in a position to furnish this information.

quired number of hand fire extinguishers to agree with ocean and coastwise regulations for cargo vessels over 100 gross tons and to agree with the present tank vessel regulations for vessels under 15 gross tons.

Amend part 35, *Operation*, by clarifying the requirement as to the method of measuring the depth of the cargo tanks which is the governing factor in establishing the requirement for fresh air breathing apparatus and by eliminating reference to cofferdam stowage which is now adequately covered in part 32.

Amend part 38, *Transportation of liquefied petroleum gases*, by incorporating certain standards of the National Board of Fire Underwriters, Pamphlet No. 58, January 1947, recommendations made by industry, and additional safety requirements based on the experience gained in the recent conversion of a vessel for the transportation of liquefied petroleum gas. The proposed revision includes changes in the scope of the regulations, revised markings for the tanks, and new requirements for valves, piping, and accessories. The safety relief valve requirements have been revised to provide for a new table of minimum discharge capacities replacing the existing table of relief valve sizes expressed in actual discharge areas. New requirements have been established governing the approval of safety relief valves and increasing the maximum permitted filling densities for unlagged tanks of over 1,200 water gallon capacity. A table of volume correction factors has been included in the revision to provide for a means of determining the maximum volume of the liquefied petroleum gas at 60° F. required for setting the length of the fixed tube liquid level device. Requirements have also been made for the installation of refrigerated systems and requirements specifying tank lagging have been provided for in the proposed regulations.

FIRE ALARM ZONING

The requirements for fire alarm zoning for passenger and cargo vessels in section 61.17 of the "General Rules and Regulations for Vessel Inspection, Ocean and Coastwise," in section 77.17 of the "General Rules and Regulations for Vessel Inspection, Great Lakes," in section 95.16 of the "General Rules and Regulations for Vessel Inspection, Bays, Sounds, and Lakes Other Than the Great Lakes," and in section 114.17 of the "General Rules and Regulations for Vessel Inspection, Rivers" (46 CFR 61.17, 77.17, 95.16, and 114.17), are to be revised. It was previously required that fire alarm zones could not exceed 100 feet in length in addition to the requirement relative to watertight and fire bulkheads. The spacing of watertight bulkheads will never exceed 100 feet, and the spacing of main vertical zone bulkheads may not exceed 131 feet. It is believed that the use of such bulkheads to form natural boundaries of zones will be less confusing than the selection of arbitrary lines on a drawing. It was previously required that where watertight bulkheads did not extend to the weather deck, the 'tween-deck spaces would be zoned as if the watertight bulkheads were extended. It is proposed to eliminate this feature and permit the zones to be bounded only by actual watertight or main vertical zone bulkheads. In the event that a system is installed which indicates not only the zone but also the actual space involved, it is proposed to permit one zone to extend to more than one deck provided such a zone does not include spaces separated by watertight or main vertical zone bulkheads.

SPECIFICATIONS

The specifications for standard kapok buoyant cushions, nonstandard buoyant cushions, sheet cork, cork and balsa wood ring life buoys, and balsa wood are being added. These new specifications are intended to cover the materials, construction, or workmanship performed by manufacturers in making equipment required to be approved by the Commandant, United States Coast Guard. It is proposed to amend the regulations concerning the carriage of buoyant cushions and ring life buoys by deleting all material now contained in the subchapters of Chapter I of Title 46, Code of Federal Regulations, which is concerned with specifications for the manufacture of such items and transferring the specifications, as modified, to parts 160 and 164 of the regulations, Subchapter Q—Specifications, which regulations deal solely with specifications for items of equipment required to be approved. The existing regulations are published in:

- Subchapter C—Motorboat Regulations
- Subchapter D—Tank Vessel Regulations
- Subchapter G—Ocean and Coastwise Regulations
- Subchapter H—Great Lakes Regulations
- Subchapter I—Bays, Sounds, and Lakes Regulations
- Subchapter J—Rivers Regulations

MARINE ENGINEERING REGULATIONS AND MATERIAL SPECIFICATIONS

It is proposed to amend certain sections of the Marine Engineering Regulations and Material Specifications (Subchapter F, Parts 52–58, inclusive, of Title 46, Code of Federal Regulations) in order to clarify the existing regulations, effect editorial changes, and bring the requirements into closer agreement with the rules of the American Bureau of Shipping, American Welding Society, and the Heating Boiler Code of the American Society of Mechanical Engineers. Where the regulations have been at variance with accepted standard practices of the industry they have been amended to conform to the common practice employed by the industry in the construction and repair of merchant vessels. The regulations in Part 58 pertaining to the requirements for existing boilers constructed prior to July 1, 1935, are to be amended to provide for a gradual increase in the factor of safety of boilers constructed with longitudinal lap-riveted seams to insure a higher degree of safety.

The amendments when approved by the Commandant will apply to installations made or contracted for on or after the effective date of publication, which will be 90 days after the approved amendments are published in the Federal Register.

Amend section 52.1–2 *Drawings*, by consolidating in one section the approval of plans for boilers, pressure vessels and appurtenances with plans covering the design of superheaters, headers, waterwalls, and economizers. Amend section 52.2–2 *Materials and workmanship*, by permitting the use of ordinary rimmed flange or firebox steel in the fabrication of power boilers designed for pressures not exceeding 150 pounds per square inch. Amend section 52.5–2 *Materials and workmanship*, by requiring that only dished heads formed by cold-pressing be stress-relieved. This amendment rescinds the requirements to stress relieve dished heads which are formed hot by either pressing or spinning.

Amend section 55.19–3 (w) *Detail requirements*, by limiting the size of forged or cast steel valves, flanges, and pipe fittings of the socket welding type to a maximum diameter of 2 inches for class I piping to agree with the rules for welded piping of the American Welding Society. Amend section 55.19–6 (a), *Class I piping*, by increasing the temperature limitations for class II piping to conform to rules for welded piping of the American Welding Society. Amend section 55.19–8 *Flange standards*, by bringing the written context descriptive of flange figures P–3, P–4, P–5, and P–6 into agreement with requirements appearing elsewhere in the regulations. Amend Section 55.19–12 *Bilge and ballast piping*, by clarifying the regulations as to the number of bilge pumps required for vessels of various types, particularly for inland vessels. Amend section 55.19–13 (1)

Pumping arrangements, by permitting Great Lakes cargo vessels to employ a common system for ballasting and drainage of cargo space in accordance with common practice on the Lakes. Amend section 55.19–15 (j) *Overflow pipes*, by specifying the same safety standards for overboard discharge connections on cargo vessels as are now required for passenger vessels. This amendment will bring the regulations in agreement with the rules of American Bureau of Shipping.

Amend section 56.20–19 (f) *Types of welded joints*, to limit the size of pipe for which slip-on flanges and socket welding fittings may be employed to a maximum size of 2 inches as required by the rules of the American Welding Society.

Amend sections 57.21–24 to 57.21–33, *Rules for the construction of cast iron boilers*, by the addition of new regulations covering the design and construction of steel plate heating boilers of riveted and welded design. The existing regulations covering the design and construction of cast iron heating boilers have been brought up to date, and together with the new regulations are in general agreement with the A. S. M. E. Code for low pressure heating boilers. Inasmuch as the proposed regulations permit fabricated plate steam heating boilers to be designed for 30 pounds per square inch (15 pounds per square inch maximum permitted by A. S. M. E. Code) more stringent requirements have been made where deemed necessary.

Amend section 58.2 *Cylindrical shells*, to provide for a gradual increase in the factor of safety of boilers constructed with longitudinal lap-riveted seams.

How Should the International Rules Be Changed?

By CAPTAIN RAYMOND F. FARWELL, *U. S. Naval Reserve*

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The present International Regulations for Preventing Collisions at Sea were adopted by an international conference held in Washington, D. C., in 1889 and have been in effect throughout the maritime world since 1897. These rules were derived largely from an earlier set of international rules, enacted in the United States in 1864, and applying not only on the high seas but on all United States inland waters as well. That original act was superseded as to the Great Lakes and the upper Saint Lawrence in 1895 by the Great Lakes rules and as to United States inland waters generally in 1897 by the inland rules, leaving it, as amended at various times, in effect today only on the rivers whose waters flow into the Gulf of Mexico. It may be mentioned that a bill now pending in Congress provides for an extensive revision of these so-called Western Rivers rules with the very proper objective of bringing them more into line with the requirements of present-day river traffic.

While few mariners will question the original excellence of the International Rules, it is probably high time that these rules, too, were revised to conform to modern conditions. In 1890 no commercial steamship had yet achieved a speed of 18 knots, and the record for the longest day's run at sea was still held by an American sailing vessel. Although whale oil had given way to the newer product kerosene, few vessels had electricity to light their running lights,[1] and probably still fewer had other than hand steering gear with which to maneuver.

A vessel of 3,000 tons gross register was then indeed something to contemplate. There was no meteorological science worthy of the name; "wireless" was not yet discovered; neither was radio direction finding nor radio telephone; and determining the distance from another vessel in fog by electronics was not to come for half a century. When all these and many equally startling factors are considered, it should hardly be regarded as an extravagant proposition that we might do well to restudy the rules of 1889 in the light of modern conditions, and, traditionally sacred as they may have become, reshape them as may seem to be necessary in preventing collisions between larger, faster, costlier, more competitive, and infinitely more numerous vessels than that earlier generation of nautical experts who drew up the present rules by lamp light even dreamed about.

As a matter of fact, one attempt to do this was made within the past 20 years, but through no fault of the attempters it died aborning. The International Convention of 1929, meeting with official delegates and technical advisers from the United States, Great Britain, Australia, Belgium, Canada, Denmark, Spain, Finland, Irish Free State, India, Norway, Sweden, Netherlands Union of Soviet Socialist Republics, Italy, Germany, and Japan adopted several changes in the International Rules, and referred them as an annex of the Convention for favorable action by the legislative bodies of the several signatories. Such action has not been forthcoming and the recommendations must now be regarded as a dead letter.

Early in 1945 plans were laid to promote another international conference on safety at sea as soon as practicable after the cessation of hostilities, and the State Department designated the United States Coast Guard as its agent to do the necessary spade work. Technical committees were appointed to study the various aspects of marine safety, and one of them, Committee IId, was assigned with the writer as chairman to work on the international regulations for preventing collisions at sea. This committee included in its membership operators and shipmasters of very wide experience, several of the ablest admiralty lawyers in the country, and Government officials representing the Navy, Coast Guard, Maritime Service, Army Transport Service, and the State Department. Most readers of this article will appreciate the fact that the lawyers on the committee were outnumbered by the seamen, and that in a membership of 17 not a single "yes" man was to be found.

At its organization meeting in New York, in February 1945, the committee adopted the very pertinent resolution that any recommendations it should make would be motivated by the single purpose of achieving greater safety of life and property afloat. Following this resolution the committee decided with becoming diffidence not to proceed on the ecclesiastic assumption that "ye are the people and wisdom will die with you" but, on the contrary, to formulate any proposed changes in the International Rules only after consulting, as far as might be possible under the hectic wartime conditions then prevailing, with the American maritime public. The chairman was directed to prepare and circulate a questionnaire setting forth a number of important points which the committee wanted to consider in an attempt to determine actual public opinion. Accordingly, some seven thousand questionnaires were sent out to a selected group of Navy and Coast

[1] A note from the British "Working Party" engaged in preparing proposals for the forthcoming Safety-at-Sea Convention is at hand, and reports that recent experiments at Portsmouth with approved oil lights revealed maximum visibility of a little over 2 miles for colored side lights, while under identical conditions the electric side lights of a coaster appeared brilliant at 5 miles.

Guard officers, merchant shipmasters, Marine Inspection Officers, and the entire membership of the American Pilots Association and the Maritime Law Association, respectively. While it is said that very few questionnaires result in replies to more than 10 percent of the number distributed, nearly a thousand answers, or about 14 percent, were received in time to be tabulated and analyzed for committee action. The writer believes, with the other members of the Rules of the Road Committee, that an analysis of the opinions and suggestions expressed in these questionnaires furnishes the best available answer to the question which is the title of this article.

While space does not permit publication of the questionnaire in full, the following excerpts from the questions show the nature of the changes in the International Rules which are suggested by the questionnaire vote. These changes have to a very large extent been included in the committee's draft of proposed International Rules. The tabulated results will be of particular interest to the many naval officers, some of the highest rank, who took time out in the midst of arduous combat duty to prepare and submit their very helpful opinions.

A

MEANING OF CLEAR WEATHER WHISTLE SIGNALS

Under the International Rules, on the high seas one and two short blasts are purely rudder signals to be given when a change of course is made with another vessel in sight. If a vessel changes course twice because the first change was insufficient, the whistle signal must be repeated. Conversely, there is no answering signal under International Rules. The second vessel whistles only when and if she likewise changes course.

Under the various inland and pilot rules, one and two blast signals are not rudder signals, but indicate, generally speaking, the manner in which vessels shall pass. They must be blown whether the course is changed or not, if the vessels approach within half a mile.

Questions

(1) Do you favor the present international use of one and two blast signals?

Yes, 439. No, 525.

(2) Or do you favor the compulsory use of whistle signals regardless of change of course, as required under the various inland rules?

Yes, 624. No, 329.

B

THE THEORY OF PRIVILEGE AND BURDEN

Two theories for the prevention of collision at sea are evident in the International Rules. The first is followed in article 18, the rule for two steamers meeting. Under this rule both vessels must take positive action to avoid collision. Each vessel must turn to her right, each vessel must whistle when making the corresponding alteration to starboard, and neither vessel can use the argument that she was waiting for the other vessel to act first. The second theory assumes that the surest way to avoid collision is to require one vessel to take all the positive action, while the other vessel is restricted to continuing the maneuver in which she is engaged, called "holding course and speed." This theory is followed when one steamer overtakes another, when one steamer is crossing another, when steam meets sail, when an ordinary vessel meets a vessel fishing, and when sail meets sail.

Question

Do you favor leaving the International Rules unchanged in this respect?

Yes, 659. No, 244.

C

CHANGES RECOMMENDED BY THE INTERNATIONAL CONVENTION OF 1929

The last International Conference on Safety at Sea met in London in 1929 and made a number of recommendations for changes in the International Rules which were embodied in the Convention as annex II. This annex II was not adopted as a regular part of the Convention, but instead was referred, with recommendations for adoption, to the legislative bodies of the various signatories. The various changes recommended will be found in detail in chapter 12 of "The Rules of the Nautical Road" (published by U. S. Naval Institute, Annapolis, Md.). In this country the recommended changes were approved by the then Bureau of Marine Inspection and Navigation, the Navy Department, and various other interests, until a bill was introduced and passed in the Senate with an amendment known as section 3, reading as follows:

> The act of Congress approved August 19, 1890, entitled "An act to adopt regulations for preventing collisions at sea" and all laws or parts of laws inconsistent with the rules and regulations contained in said annex II are hereby repealed, said repeal to become effective upon issuance of the proclamation by the President authorized by section 2 hereof.

No one around Washington seems to know where section 3 came from, but its effect was apparently to annul any local rules inconsistent with the International Rules. The Bureau of Marine Inspection and Navigation and various interests from the Great Lakes and Western Rivers sections opposed this amendment and the bill died in committee in the House. So far as is known the amendments of 1929 have not been legally adopted by any signatory, though certain South American countries are using them.

For information, the changes proposed in the Convention of 1929 are next stated. Please indicate whether or not you favor having each of these recommendations reintroduced with a favorable recommendation in the forthcoming convention:

Summary of Questions

(1) Do you favor insertion of the phrase "or impair their visibility" in article 1, to make it read as follows:

> The rules concerning lights shall be complied with in all weathers from sunset to sunrise, and during such time no other lights which may be mistaken for the prescribed lights or impair their visibility shall be exhibited?

Yes, 896. No, 85.

(2) Do you favor a compulsory after-range light instead of an optional after-range light for steam vessels 150 feet or more in length?

Yes, 962. No, 28.

(3) Do you favor special exemption for lights of naval vessels, reading as follows:

> In naval vessels of special construction in which it is not possible to comply fully with the provisions of this article as to the position of lights or their range of visibility, those provisions shall be followed as closely as circumstances will permit?

Yes, 735. No, 217.

(4) Do you favor increase in the minimum visibility of required lights for steamers under 40 tons and for pilot vessels from 2 to 3 miles?

Yes, 895. No, 64.

(5) Do you favor increase in the minimum visibility in the required lights for fishing vessels from 1 to 2 miles?

Yes, 951. No, 34.

(6) Do you favor a required fixed stern light, except for small vessels, with minimum visibility increased to 2 miles?

Yes, 897. No, 79.

(7) Do you favor the requirement of one black anchor ball as a day signal for a vessel of more than 300 gross tons in a fairway?

Yes, 949. No, 21.

(8) Do you favor the requirement of three black balls as a day signal for a vessel aground in or near a fairway?

Yes, 775. No, 160.

(9) Do you favor rewording of article 12, which permits the four-blast danger signal, by the following amended language:

Every vessel may, if necessary, in order to attract attention, in addition to the lights which she is by these rules required to carry, show a flare-up light or use any detonating or other efficient sound signal that cannot be mistaken for a prescribed distress or fog signal?

Yes, 581. No, 328.

Or do you believe that the four or more short blast danger signal should be made compulsory on the high seas?

Yes, 785. No, 173.

(10) Do you favor the change of the one black ball to one black cone, point upwards, to indicate a vessel proceeding under sail when also under mechanical power?

Yes, 670. No, 205.

(11) Do you favor an additional signal for a vessel at anchor in fog as follows:

In vessels of more than 350 feet in length, the bell shall be sounded in the fore part of the vessel, and, in addition, there shall be sounded in the after part of the vessel, at intervals of not more than 1 minute, a gong or other instrument, the tone of which cannot be confused with the ringing of the bell?

Yes, 486. No, 476.

(12) Do you favor a required signal in fog for a vessel being towed, as follows:

A vessel towed, or if more than one vessel is towed, the last vessel of the tow, shall, at intervals of not more than two minutes, sound four blasts in succession, one prolonged blast followed by three short blasts, provided that this signal is not required when it is impossible to keep the vessel manned?

When practicable, the vessel towed shall make this signal immediately after the signal made by the towing vessel.

Yes, 672. No, 267.

(13) Do you favor a required fog signal for a stranded vessel, as follows:

A vessel aground in or near a fairway shall give the signal prescribed in paragraph (d) and shall, in addition, give three separate and distinct strokes on the bell immediately preceding and following each such signal?

Yes, 669. No, 222.

D

IMPORTANT POINTS IN THE PRESENT INTERNATIONAL RULES NOT IN ANY OF THE INLAND OR PILOT RULES

As already pointed out, the forthcoming conference can make changes only in the International Rules and not in any of the inland or pilot rules. In other words, any steps toward unification of the rules must be made by taking things out of the International Rules which are not in any inland rules and putting things into the International Rules which are already in inland or pilot rules.

In the interests of unification, or on their merits, do you think that the following should be taken out of the International Rules:

Questions

(1) Break-down lights (Article 4, International)?

Take out, 29. Retain, 930.

(2) Lights for fishing vessels other than those in article 9, Inland Rules? (See article 9, International.)

Take out, 337. Retain, 460.

(3) Lights for a vessel aground in a fairway? (Article 11, International.)

Take out, 109. Retain, 782.

(4) Two prolonged blast signal for steam vessel underway without way in a fog? (Article 15b, international.)

Take out, 138. Retain, 824.

E

IMPORTANT POINTS IN THE VARIOUS INLAND AND PILOT RULES NOT IN THE PRESENT INTERNATIONAL RULES

In the interests of unification, or on their merits, do you think that the following should be included in the International Rules?

Questions

(1) The half-mile rule? In effect this rule provides a compulsory exchange of whistle signals for vessels approaching within half a mile, regardless of change of course.

Yes, 556. No, 390.

(2) The danger signal—four or more short blasts of the whistle? This is a required signal in most inland waters when a vessel is uncertain as to the course or intention of another vessel.

Yes, 888. No, 74.

(3) The bend signal? This provides for a signal of one long blast, construed as an eight or ten second blast, when a vessel is approaching a bend or leaving her berth or mooring.

Yes, 694. No, 244.

(4) The anchor ball? The Pilot Rules require this signal for a self-propelled vessel of more than 300 tons at anchor, and Panama Canal Rules require it of any self-propelled vessel at anchor.

Yes, 698. No, 45.

(5) Compulsory after range light?

Yes, 820. No, 45.

(6) Special lights? The Pilot Rules and the War Department regulations specify numerous set-ups of lights for such vessels as a dredge, a towing vessel with submerged tow, a vessel at work on a wreck, a vessel engaged in submarine construction, etc. Do you think these lights should be introduced into the International Rules instead of the two red lights for a vessel not under command which such vessels now show on the high seas?

Yes, 235. No, 690.

(7) Synchronous amber light with whistle? (As required by Western Rivers Pilot Rule 332.10a.)

Yes, 412. No, 310.

F

POSSIBLE CHANGES IN THE MODERATE SPEED RULE DUE TO DEVELOPMENT IN RADAR

The present rule for moderate speed in fog is stated in Article 16, International Rules, as follows:

Every vessel shall, in a fog, mist, falling snow, or heavy rainstorms, go at a moderate speed, having careful regard to the existing circumstances and conditions.

A steam vessel hearing, apparently forward of her beam, the fog signal of a vessel the position of which is not ascertained, shall, so far as the circumstances of the case admit, stop her engines, and then navigate with caution until danger of collision is over.

As interpreted by the Supreme Court, the foregoing rule limits speed in fog to bare steerageway when there is little or no visibility ahead; and when there is appreciable visibility ahead, the vessel is limited to a speed which will enable her to stop in half the distance of visibility. Thus, if the visibility is one-fourth mile the vessel must be able to take all headway off in one-eighth mile.

Question

In view of the development of radar, which could be adopted as standard equipment if the Convention so decided, and which can be used to furnish both the direction and distance of an approaching vessel, do you recommend any changes in Article 16, International Rules?

Yes, 482. No, 483.

It will be noted that the questionnaire vote was almost evenly divided on this point. Many of the adverse replies came from combatant commanding officers who had had wide experience with radar and who felt that, notwithstanding the unquestionable value of that device as a collision preventive, occasional mechanical failure and the necessary reliance on operating personnel in the use of radar made results too uncertain to justify a change in the moderate speed rule. The committee has so far declined to recommend modification of the rule, taking the position that any relaxation might tend to encourage excessive speed in fog and that some discretion is already provided in the phrase "having careful regard to the existing circumstances

and conditions." However, until specific provision is made in the rule, or until the courts find under the present wording that a mariner having and using radar is justified in speeds in fog which have hitherto been held as excessive, the "rule of sight," as it has come to be called, continues to apply alike to vessels equipped with radar and to those not so equipped. In other words, if you go at high speed with low visibility because of your reliance on radar you must avoid collision—or pay for it. This is hardly a satisfactory arrangement to a vessel which is able, to all practical intents and purposes, to see several miles in every direction in the thickest fog, but which may, nevertheless, be forced into a collision because another vessel blunders, perhaps because she has no radar.

The matter of excessive speed is only one of several legal and practical questions raised by the availability of radar to determine the bearing and distance of approaching vessels in thick weather, such as the necessity of the requirement to stop the engines, the matter of not making a substantial change in course before sighting the other vessel, the rights and duties of the respective vessels in an encounter between a vessel with radar and one without it, and the additional obligation of a vessel having radar to use it constantly during low visibility as a precautionary measure. It would seem that in some respects article 16 is an example of a good rule which has become outmoded by scientific wartime development. If this is the case, then it is to be hoped that the Convention will do something about it, at least to the extent of phrasing it so that the rapidly increasing numerous vessels being equipped with planned position indicators will know with certainty just where they stand.

G

CLARIFICATION OF THE RULES IN THE LIGHT OF COURT INTERPRETATIONS

Several of the International Rules are ambiguously worded. Many of them have had their meaning extensively modified by court interpretations. Examples of the first are: (a) The description of side lights in article 2b and 2c, which call for lights on the sides of the vessel visible dead ahead but not visible across the bow, a physical impossibility; (b) failure of article 3, International, to make clear whether or not an after range light on a steam vessel when towing is proper; (c) the description in article 18 of vessels to which the meeting rule does not apply. Examples of the second are found in the use of such terms as "moderate speed," "special circumstances," "good seamanship," "full speed astern," "immediate danger," "proper lookout," "flare-up light," "efficient whistle or siren," and "risk of collision," all of which are so indefinite in meaning that they have had to be interpreted by the courts.

Questions

(1) Do you believe the wording of the rules should be improved wherever they are now ambiguous, or do you prefer preserving the old form?

Change wording, 775. Preserve old form, 171.

(2) Do you believe the rules should be worded so as to include, where possible, their meaning as interpreted by the courts, including the Supreme Court?

Yes, 661. No, 255.

CLARIFICATION OF THE RULES AS TO STEAMSHIP ROUTES

In certain areas, such as the Great Lakes and the North Atlantic Ocean, steamship tracks are definitely routed a safe distance apart in opposite directions.

Questions

(1) Do you believe this principle should be extended by international agreement to other ocean routes and coastwise routes?

Yes, 739. No, 213.

(2) If your answer to (1) is yes, do you favor having these tracks laid down on charts issued by the various governments concerned?

Yes, 731. No, 65.

It may be pointed out that even a cursory examination of the foregoing questions indicates a demand for some very significant changes in the International Rules. Perhaps the most important of these is the compulsory exchange of whistle signals between approaching steam vessels, favored nearly two to one whether either vessel changes course or not. In a country where every sea-going mariner develops equal familiarity with high seas and inland rules—since on every voyage he must practice both—it is the inland system which is decidedly preferred for use at sea. An even larger majority desires no change in the application of privilege and burden to every approaching situation but one, and the amendments worked out by the 1929 Convention all carry, most of them by a vote of several to one.

Sections D and E of the questionnaire are presented in part, as frankly admitted, in the interests of unification—a subject which has quite properly received some attention for several years in a country which uses ten different sets of collision regulations.

The discriminating appraisal of these questions by those who submitted questionnaires is shown by the fact that in no case did they approve the removal of existing international provisions, while voting enthusiastically for half a dozen items now peculiar to the various inland and pilot rules. And they would have none of the numerous special lights which brighten and decorate our inland waterways—and confuse the mariner—but prefer the well-known not-under-command signal for all craft the nature of whose work makes them relatively unmaneuverable and requires, in the name of good seamanship, that they be approached with caution and given a wide berth.

It will be noted from section G that the questionnaires resulted in a four to one approval of attempting to remove ambiguities in the present rules, and a two and a half to one approval of including in the rules, where possible, their meaning as interpreted by ruling court decisions.

In addition to a decisive mandate for the establishment of two-lane traffic by international agreement, many valuable suggestions for increased safety were received, and several of them, though not included as rules of the road, are being referred by the Rules of the Road Committee for further favorable action.

The following deserve mention here:

(a) That two-lane traffic routes be established where practicable both on the high seas and in inland waters on a recommended rather than a compulsory basis, such two-way tracks to be laid down on appropriate charts with information suitable for mariners. The following suggested regulation expresses the ideas of this committee:

(1) The member nations shall study and establish, wherever practicable, in their respective territorial waters, recommended traffic lanes which shall be depicted on the appropriate charts.

(2) These lanes shall define inbound and out-bound areas or tracks in the vicinity of ports, harbors, headlands, and through straits, etc.

(3) These lanes shall be established for the benefit of international as well as local shipping.

(4) The present system of separate ocean traffic lanes recommended for the use of international shipping shall be extended to cover all important trade routes of the world, where it is found to be feasible and practicable.

(5) The recommended traffic routes to be established internationally shall be delineated on charts and described in publications issued by member nations for the use and guidance of mariners. The responsibility for coordinating and issuing these traffic routes shall devolve upon such agencies as the Convention may determine.

(6) Charts should state that the routes are recommendations only. Charts should also state that vessels which intentionally proceed without regard to the recommended track are requested to keep well clear of such tracks.

(b) That vessels fishing and small boats be advised to keep clear of such tracks when established.

(c) That known fishing areas be marked on appropriate charts.

(d) That small wooden vessels be required to carry radar reflectors at least 2 feet in diameter.

(e) That radar equipment employing planned position indicator (PPI) be made compulsory for all passenger vessels navigating the high seas not later than January 1, 1949.

(f) That on sea-going steam vessels, a recording device be attached to the whistle to show the time and duration of the whistle signals.

(g) That tactical data for all sea-going vessels over 100 feet in length propelled by machinery be required and kept available for the bridge officers, showing the vessel's turning circle at normal speed and the time and distance necessary to bring her to a dead stop at various speeds, loaded and light. Such data shall be determined by governmental inspection authority.

HEARING UNITS

Coast Guard Merchant Marine investigating units and Merchant Marine details investigated a total of 735 cases during the month of November 1947. Of this number, charges were preferred involving 14 licenses and 56 unlicensed men. No hearings were held because examiners were not available.

INTERNATIONAL ICE PATROL

The International Ice Patrol and Ice Observation Services were resumed on February 1, 1948, and will run well through July 1, 1948. The patrol will be conducted by the Coast Guard as in the past. The patrol for the 1948 season will consist of the United States Coast Guard cutters *Mendota*, *Mocoma, and Evergreen*. The latter is a 180-foot buoy tender to be used as oceanographic vessel, and two long-range aircraft as ice patrol planes, all based at the United States Naval Operating Base, Argentia, Newfoundland. The patrol vessels, *Mendota* and *Mocoma* will inaugurate Ice Observation Service about March 1, 1948, or later as ice conditions require. The *Evergreen* will perform oceanographic duties beginning about April 1, 1948.

The force assigned will operate to carry out the provisions of the International Convention for the Safety of Life at Sea, London, 1929 and United States Code, Title 46, Sections 738–738D, relating to ice observation, ice patrol, and derelict destruction. The mission to be performed will consist of:

(a) Location and reporting position of ice formations that are or may be a menace to ocean navigation.

(b) Determine set and drift of ice formations that may become a menace to ocean navigation and keep all interested parties informed thereof.

(c) Collect and report weather information.

(d) Collect oceanographic data, surface and subsurface, for construction of surface current charts and for long range investigation of ocean circulation.

(e) Render assistance as required.

(f) Make such observations as are practical relative to the continuing study in ice detection.

(g) Observe and report, as opportunity offers, all natural phenomena which might be of interest to the participating nations and the world of science in general.

For the first time since 1940, there will be reestablished a full scientific program of research primarily in the field of physical oceanography. This party, on board the oceanographic vessel, will make surveys and construct surface current charts of the ice patrol area at frequent intervals for use in determining future ice movements.

The patrol vessels will determine the southeastern, southern, and southwestern limits of the ice area in the vicinity of the Grand Banks of Newfoundland and keep in touch with it as it moves southward in order that radio broadcasts may be transmitted twice daily giving locations of ice, particularly that which may be in the immediate vicinity of the North Atlantic lane routes.

Throughout the ice season, Radio Washington (NSS) at 0430 and 1630 (Greenwich civil time) on regular hydrographic broadcast schedule, will broadcast daily ice information bulletins. Summaries of this information will be repeated locally from Boston, New York, and Norfolk at their scheduled times for hydrographic broadcasts.

Radio Argentia, Newfoundland, radio call sign NWP, will broadcast two daily ice bulletins for the benefit of shipping. Broadcasts will be scheduled for 0118 and 1318 (Greenwich civil time). Each broadcast will be preceded by the general call CQ on 500 kilocycles with instructions to shift to receive on 480 kilocycles (A–2), and 8100 kilocycles (A–1). After shifting to these frequencies, NWP will transmit test signals and the International Ice Patrol radio call sign NIDK for 30 seconds to facilitate tuning by ship stations.

Transmission of the Ice Bulletin will immediately follow with each broadcast to be transmitted twice with an interval of 2 minutes between the transmissions. Radio silent periods will be observed during these broadcasts at the prescribed time. Special ice bulletins may be broadcast at times other than the regular scheduled broadcasts if urgency warrants. In such instances a preliminary call will be made on 500 kilocycles with instructions to shift to receive on 480 kilocycles (A–1). Transmissions relating to special bulletins will be preceded by the international safety signal TTT.

Broadcasts from both Radio Argentina and Radio Washington will include a statement as to whether a vessel is on patrol or not. When the vessel is absent from patrol, information as to its return will be included if practicable.

Patrol vessels, radio call sign NIDK, will maintain a continuous listening watch on 500 and 8280 kilocycles for distress signals. They will answer on 468 kilocycles for general communication, such as ice and water temperature reports and requests for additional information on portions of ice broadcasts which may have been missed. During temporary absence of the vessel from patrol, Radio Argentia will answer on 480 or 8100 kilocycles using the call NWP, and handle such communications. There is no charge for this service.

The work of the Coast Guard cutters engaged in ice patrol duty will be greatly facilitated if steamships make four-hourly reports to the ice patrol vessel (NIDX) when in the area between 39° N. and 48° N., and between 43° W. and 54° W., giving position, course, speed, water and air temperatures, visibility, wind and sea conditions, in addition to any ice or obstructions sighted. In case of an iceberg report it should include the temperature of the water in its vicinity. Shipping will be notified when it is desired that these reports begin. These data will facilitate the drawing of a temperature chart which will be useful in locating the branches of the Labrador Current.

It is suggested that radio operators refrain, as far as practicable, from transmitting during the broadcasts of ice information in order to lessen radio interference.

Ships equipped with radar are cautioned that under certain sea conditions small bergs and growlers of a size sufficient to damage a vessel may not be detected due to being obscured by the sea swell or scope clutter.

MORMACPINE

The S. S. *Mormacpine*, formerly the *Brown Victory*, was built at Portland, Oreg., in 1945 and saw considerable war service. After she returned to her peacetime role her name was changed to *Mormacpine*. She is 436 feet long, 62 feet wide, and displaces 15,199 tons. Accommodations are provided for 12 passengers and she carries general freight and is powered by a single screw powered by steam turbine. She is shown standing out of New York Harbor loaded to capacity with freight.

INTERNATIONAL LOAD LINE CONVENTION

It was recently announced that the Government of the Dominican Republic acceded to the International Load Line Convention of 1930 on October 28, 1947, and in accordance with article 23 of the Convention will be effective on October 28, 1947. The governments which have ratified or acceded to the International Load Line Convention are also listed on page 168 of the October 1947 issue of the "Proceedings." The Dominican Republic should be added to that list.

FOREIGN MERCHANT MARINE DETAILS

Under present agreement with the Department of State the following foreign Merchant Marine details will be continued as indicated below:

Port	*Date extended to—*
Antwerp	31 March, 1948
Bremerhaven	30 June, 1948
LeHavre	31 March, 1948
London	30 June, 1948
Naples	30 June, 1948
Piraeus	30 June, 1948
Trieste	30 June, 1948

LESSONS FROM CASUALTIES

AN OLD, OLD, STORY

The following incident has happened before and in all probability will happen again. It has just happened.

It's the old story of death by asphyxiation when entering a sealed compartment without preliminary airing. This time, three lives were lost.

The incident occurred on an American vessel in an Italian port. The vessel, a Liberty type, was discharging a cargo of coal. Number 1 hold had been cleared. The chief mate, together with the boatswain and two AB's, entered the hold to inspect the two deep tanks. The deep tanks had not been used during the voyage and had been tightly sealed to exclude all minute particles of coal. The manhole cover to the starboard deep tank was the first to be removed.

The chief mate, upon directing a flashlight into the tank, spotted a piece of lumber which he decided to remove. He entered the tank and descended the ladder to the bottom. He took a few steps around. Then he started up again. Near the top of the ladder he fell backwards to the bottom of the tank about 10 feet below. The boatswain and one AB immediately entered the tank to remove the mate. The AB started up the ladder with the body of the chief mate, but before reaching a point where the second AB could assist, he fell backwards. The second AB sensed something radically wrong and scurried to the main deck for help.

Several men with an oxygen breathing apparatus, life lines, stretchers and wrenches arrived at the scene. The second AB entered the tank using a dampened handkerchief across his nose and a life line around his chest. He was overcome and was pulled from the tank by means of the life line, suffering no after effects. The deck engineer, using the oxygen breathing apparatus, entered the tank and removed the body of the first AB. After this was done the breathing apparatus oxygen supply was depleted.

The tank top was then unbolted and removed. The third mate entered the open tank with a life line about his shoulders. He removed the bodies of the chief mate and the boatswain.

All three of the recovered bodies were rushed to a hospital in an ambulance. Shortly thereafter, the master was notified that the three men had been pronounced dead.

After contact with the American Consul, arrangements were made to embalm the bodies and retain them aboard the vessel until its return to the United States. Three weeks later, the bodies were forwarded to their next of kin.

It was concluded that the three deaths were not due to negligence or inattention to duty on the part of the master or any member of the crew other than those who inadvertently met death. The chief mate, a seaman with years of experience, should have known the danger that existed in entering a tank which had not been aired. The boatswain and AB, not realizing the cause of the chief mate's collapse in the tank, were overcome in an attempt to assist him.

In appraising this unfortunate incident the Master could only say, "It is beyond my comprehension why a licensed officer with the experience and ability of _____, the chief mate, would enter any vacated long-sealed compartment before using the precautions with which he was entirely familiar, of testing it with one of the two flame safety lamps aboard ship."

The lesson to be learned from this accident has been taught many times before: NEVER, NEVER, NEVER enter any compartment which has been closed tightly for some time, without first checking its oxygen content. Human beings, even mariners, require oxygen for the sustenance of life.

KEEP CHARTS UP TO DATE

After all the many years of marine navigation, no chart has yet been devised which is automatically self-correcting.

In an age harassed by complicated machines and push-button controls, we place compensating mechanisms and automatic safety features on practically every piece of modern navigational equipment, but still the mariner must correct his own charts. Failure to do so leads not only to personal embarrassment, but to the possibility of a major disaster as well.

Quite recently, a seasoned master grounded his vessel near the entrance to a Gulf coast port. He innocently hauled in on a red flashing buoy (every ten seconds) when he should have made the haul on a white flashing light (every 10 seconds). Investigation revealed that he failed to keep his charts corrected to date, nor did he consult the latest light list.

Although the vessel grounded easily in soft mud and sustained no apparent damage, it required three tugs to refloat her 20 hours later.

The incident occurred during the wee hours of Christmas morning (the master may have been thinking of Old St. Nick at the time). The weather was cloudy, visibility hazy, and sea moderate. On a course 67° true, at 13 knots, the master sighted a red light flashing every 10 seconds, approximately 2 points on his port bow. Believing this to be the entrance light to his port of destination he hauled to the left and reduced to half speed, when about 4½ points on the port bow. It was then 2350 Christmas Eve. At 0015, a white light flashing every 10 seconds was sighted. Realizing

that the first light sighted was not the entrance light, the master attempted to alter course to starboard, but the vessel was aground.

It was ascertained that the master was using a United States Coast and Geodetic Survey chart dated May 20, 1943, and a second United States Coast and Geodetic Survey chart dated February 19, 1945. Neither chart was corrected to date. The latest light list and charts (1947) clearly indicated the correct position and characteristics of the entrance light. It was also clearly shown that the master actually turned at a shoal buoy.

There was no alternative but to admonish the master for inattention to duty which resulted in the grounding of his vessel.

The lessons to be learned from this casualty are so obvious, they scarcely need explaining. It is difficult to understand how a master would fail to consult the light list prior to entering port and mistake a red light for a white one (even on Christmas Day). Charts and publications must not only be kept up to date, but must be consulted when necessary in order to serve the purpose for which they are intended.

HOW TO LIFT

Bend your knees.
Keep the load close to you.
Have a good footing.
Wear safety shoes.
Get a good grip.
Keep hands in the clear.
Protect your hands from snags, wear gloves.
On heavy or awkward loads—get help.

APPENDIX

Amendments to Regulations

TITLE 33—NAVIGATION AND NAVIGABLE WATERS

Chapter II—Corps of Engineers, Department of the Army

PART 201—GENERAL REGULATIONS

Pursuant to the provisions of section 7 of the River and Harbor Act of August 8, 1917 (40 Stat. 266; 33 U. S. C. 1), the general regulations contained in 33 CFR, Part 201, §§ 201.0 to 201.16, inclusive, are revoked, effective on and after March 1, 1948, and the following §§ 201.1 to 201.16, inclusive, are substituted therefor:

Sec.
201.1 Scope and applicability of regulations.

LIGHTS AND DAY SIGNALS

201.2 Signals to be displayed by a towing vessel when towing a submerged or partly submerged object upon a hawser when no signals can be displayed upon the object which is towed.
201.3 Steam vessels, derrick boats, lighters, or other types of vessels made fast alongside a wreck, or moored over a wreck which is on the bottom or partly submerged, or which may be drifting.
201.4 Dredges held in stationary position by moorings or spuds.
201.5 Self-propelling suction dredges under way and engaged in dredging operations.
201.6 Vessels moored or anchored and engaged in laying cables or pipe, submarine construction, excavation, mat sinking, bank grading, dike construction, revetment, or other bank protection operations.
201.7 Lights to be displayed on pipe lines.
201.8 Lights generally.
201.9 Vessels moored or at anchor.

PASSING FLOATING PLANT WORKING IN NAVIGABLE CHANNELS

201.10 Passing signals.
201.11 Speed of vessels passing floating plant working in channels.
201.12 Light-draft vessels passing floating plant.
Sec.
201.13 Aids to navigation marking floating-plant moorings.
201.14 Obstruction of channel by floating plant.
201.15 Clearing of channels.
201.16 Protection of marks placed for the guidance of floating plant.

AUTHORITY: §§ 201.1 to 201.16, inclusive, issued under 40 Stat. 266; 33 U. S. C. 1 [Regs. Dec. 24, 1947, 800.211–ENGWR]

§ 201.1. *Scope and applicability of regulations.* (a) The regulations contained in this part govern lights and day signals to be displayed by towing vessels with tows on which no signals can be displayed, vessels working on wrecks, dredges, and vessels engaged in laying cables or pipe or in submarine or bank protection operations, lights to be displayed on dredge pipe line, and day signals to be displayed by vessels of more than 65 feet in length moored or anchored in a fairway or channel (§§ 201.2 to 201.9, inclusive), and the passing by other vessels of floating plant working in navigable channels (§§ 201.10 to 201.16, inclusive).

(b) The regulations contained in this part are applicable on the Great Lakes and their connecting and tributary waters as far east as Montreal ("Great Lakes"), and on the Red River of the North and rivers emptying into the Gulf of Mexico and their tributaries ("Western Rivers"). Similar Coast Guard regulations, applicable on the harbors, rivers, and inland waters of the United States except the "Great Lakes" and the "Western Rivers," are contained in §§ 312.18 to 312.31a, inclusive, of this title, *infra*.

§ 201.2 *Signals to be displayed by a towing vessel when towing a submerged or partly submerged object upon a hawser when no signals can be displayed upon the object which is towed.* (a) The vessel having the submerged object in tow shall display by day, where they can best be seen, two shapes, one above the other, not less than 6 feet apart, the lower shape to be carried not less than 10 feet above the deck house. The shapes shall be in the form of a double frustrum of a cone, base to base, not less than 2 feet in diameter at the center nor less than 8 inches at the ends of the cones, and to be not less than 4 feet lengthwise from end to end, the upper shape to be painted in alternate horizontal stripes of black and white, 8 inches in width, and the lower shape to be painted a solid bright red.

(b) By night the towing vessel shall display the regular side lights, but in lieu of the regular white towing lights shall display four lights in a vertical position not less than 3 feet nor more than 6 feet apart, the upper and lower of such lights to be white, and the two middle lights to be red, all of such lights to be of the same character as the regular towing lights.

§ 201.3 *Steam vessels, derrick boats, lighters, or other types of vessels made fast alongside a wreck, or moored over a wreck which is on the bottom or partly submerged, or which may be drifting.* (a) Steam vessels, derrick boats, lighters, or other types of vessels made fast alongside a wreck, or moored over a wreck which is on the bottom or partly submerged, or which may be drifting, shall display by day two shapes of the same character and dimensions and displayed in the same manner as required by § 201.2 (a), except that both shapes shall be painted a solid bright red, but where more than one vessel is working under the above conditions, the shapes need be displayed only from one vessel on each side of the wreck from which they can best be seen from all directions.

(b) By night this situation shall be indicated by the display of a white

light from the bow and stern of each outside vessel or lighter not less than 6 feet above the deck, and in addition thereto there shall be displayed in a position where they can best be seen from all directions two red lights carried in a vertical line not less than 3 feet nor more than 6 feet apart, and not less than 15 feet above the deck.

§ 201.4 *Dredges held in stationary position by moorings or spuds.* (a) Dredges which are held in stationary position by moorings or spuds shall display by day two red balls not less than 2 feet in diameter and carried in a vertical line not less than 3 feet nor more than 6 feet apart, and at least 15 feet above the deck house and in a position where they can best be seen from all directions.

(b) By night they shall display a white light at each corner, not less than 6 feet above the deck, and in addition thereto there shall be displayed in a position where they can best be seen from all directions two red lights carried in a vertical line not less than 3 feet nor more than 6 feet apart, and not less than 15 feet above the deck. When scows are moored alongside a dredge in the foregoing situation they shall display a white light on each outboard corner, not less than 6 feet above the deck.

§ 201.5 *Self-propelling suction dredges under way and engaged in dredging operations.* (a) Self-propelling suction dredges under way and engaged in dredging operations shall display by day two black balls not less than 2 feet in diameter and carried in a vertical line not less than 15 feet above the deck house, and where they can best be seen from all directions. The term "dredging operations" shall include maneuvering into or out of position at the dredging site, but shall not include proceeding to and from the site.

(b) By night they shall carry, in addition to the regular running lights, two red lights of the same character as the white masthead light and in a vertical line beneath that light, the red lights to be not less than 3 feet nor more than 6 feet apart and the upper red light to be not less than 4 feet nor more than 6 feet below the masthead light, and on or near the stern two red lights in a vertical line not less than 4 feet nor more than 6 feet apart, to show through four points of the compass; that is, from right astern to two points on each quarter.

§ 201.6 *Vessels moored or anchored and engaged in laying cables or pipe, submarine construction, excavation, mat sinking, bank grading, dike construction, revetment, or other bank protection operations.* (a) Vessels which are moored or anchored and engaged in laying cables or pipe, submarine construction, excavation, mat sinking, bank grading, dike construction, revetment, or other bank protection operations, shall display by day, not less than 15 feet above the deck, where they can best be seen from all directions, two balls not less than 2 feet in diameter, in a vertical line not less than 3 feet nor more than 6 feet apart, the upper ball to be painted in alternate black and white vertical stripes 6 inches wide, and the lower ball to be painted a solid bright red.

(b) By night they shall display three red lights, carried in a vertical line not less than 3 feet nor more than 6 feet apart, in a position where they can best be seen from all directions, with the lowermost light not less than 15 feet above the deck.

(c) Where a stringout of moored vessels or barges is engaged in the operations, three red lights carried as prescribed in paragraph (b) of this section shall be displayed at the channelward end of the stringout. Where the stringout crosses the navigable channel and is to be opened for the passage of vessels, the three red lights shall be displayed at each side of the opening instead of at the outer end of the stringout. There shall also be displayed upon such stringout one horizontal row of amber lights not less than 6 feet above the deck, or above the deck house where the craft carries a deck house, in a position where they can best be seen from all directions, spaced not more than 50 feet apart so as to mark distinctly the entire length and course of the stringout.

§ 201.7 *Lights to be displayed on pipe lines.* Pipe lines attached to dredges, and either floating or supported on trestles, shall display by night one row of amber lights not less than 8 feet nor more than 12 feet above the water, about equally spaced and in such number as to mark distinctly the entire length and course of the line, the intervals between lights where the line crosses navigable channels to be not more than 30 feet. There shall also be displayed on the shore or discharge end of the line two red lights, 3 feet apart, in a vertical line with the lower light at least 8 feet above the water, and if the line is to be opened at night for the passage of vessels, a similar arrangement of lights shall be displayed on each side of the opening.

§ 201.8 *Lights generally.* (a) All the lights required by §§ 201.2 to 201.7, inclusive, except as provided in §§ 201.2 (b) and 201.5 (b), shall be of such character as to be visible on a dark night with a clear atmosphere for a distance of at least 2 miles.

(b) The lights required by § 201.2 (b) to be of the same character as the regular towing lights, and the lights required by § 201.5 (b) to be of the same character as the masthead light, shall be of such character as to be visible on a dark night with a clear atmosphere for a distance of at least 5 miles.

(c) All floodlights or headlights which may interfere with the proper navigation of an approaching vessel shall be so shielded that the lights will not blind the pilot of such vessel.

§ 201.9 *Vessels moored or at anchor.* Vessels of more than 65 feet in length when moored or anchored in a fairway or channel shall display between sunrise and sunset on the forward part of the vessel where it can best be seen from other vessels one black ball not less than 2 feet in diameter.

PASSING FLOATING PLANT WORKING IN NAVIGABLE CHANNELS

§ 201.10 *Passing signals.* (a) Vessels intending to pass dredges or other types of floating plant working in navigable channels, when within a reasonable distance therefrom and not in any case over a mile, shall indicate such intention by one long blast of the whistle, and shall be directed to the proper side for passage by the sounding, by the dredge or other floating plant, of the signal prescribed in the local pilot rules for vessels under way and approaching each other from opposite directions, which shall be answered in the usual manner by the approaching vessel. If the channel is not clear, the floating plant shall sound the alarm or danger signal and the approaching vessel shall slow down or stop and await further signal from the plant.

(b) When the pipe line from a dredge crosses the channel in such a way that an approaching vessel cannot pass safely around the pipe line or dredge, there shall be sounded immediately from the dredge the alarm or danger signal and the approaching vessel shall slow down or stop and await further signal from the dredge. The pipe line shall then be opened and the channel cleared as soon as practicable; when the channel is clear for passage the dredge shall so indicate by sounding the usual passing signal as prescribed in paragraph (a) of this section. The approaching vessel shall answer with a corresponding signal and pass promptly.

(c) When any pipe line or swinging dredge shall have given an approaching vessel or tow the signal that the channel is clear, the dredge shall straighten out within the cut for the passage of the vessel or tow.

NOTE: The term "floating plant" as used in §§ 201.10 to 201.16, inclusive, includes

dredges, derrick boats, snag boats, drill boats, pile drivers, maneuver boats, hydraulic graders, survey boats, working barges, and mat sinking plant.

§ 201.11 *Speed of vessels passing floating plant working in channels.* Vessels, with or without tows, passing floating plant working in channels, shall reduce their speed sufficiently to insure the safety of both the plant and themselves, and when passing within 200 feet of the plant their speed shall not exceed 5 miles per hour. While passing over lines of the plant, propelling machinery shall be stopped.

§ 201.12 *Light-draft vessels passing floating plant.* Vessels whose draft permits shall keep outside the buoys marking the ends of mooring lines of floating plant working in channels.

§ 201.13 *Aids to navigation marking floating-plant moorings.* Breast, stern, and bow anchors of floating plant working in navigable channels shall be marked by barrel or other suitable buoys. By night approaching vessels shall be shown the location of adjacent buoys by throwing a suitable beam of light from the plant on the buoys until the approaching vessel has passed, or the buoys may be lighted by red lights, visible in all directions, of the same character as specified in § 201.8 (a).

§ 201.14 *Obstruction of channel by floating plant.* Channels shall not be obstructed unnecessarily by any dredge or other floating plant. While vessels are passing such plant all lines running therefrom across the channel on the passing side which may interfere with or obstruct navigation shall be slacked to the bottom of the channel.

§ 201.15 *Clearing of channels.* When special or temporary regulations have not been prescribed and action under the regulations contained in §§ 201.10 to 201.14, inclusive, will not afford clear passage, floating plant in narrow channels shall, upon notice, move out of the way of vessels a sufficient distance to allow them a clear passage. Vessels desiring passage shall, however, give the master of the floating plant ample notice in advance of the time they expect to pass.

NOTE: If it is necessary to prohibit or limit the anchorage or movement of vessels within certain areas in order to facilitate the work of improvement, application should be made through official channels for establishment by the Secretary of the Army of special or temporary regulations for this purpose.

§ 201.16 *Protection of marks placed for the guidance of floating plant.* Vessels shall not run over anchor buoys, or buoys, stakes, or other marks placed for the guidance of floating plant working in channels; and shall not anchor on the ranges of buoys, stakes, or other marks placed for the guidance of such plant.

[SEAL] EDWARD F. WITSELL,
Major General,
The Adjutant General.

[F. R. Doc. 48-340; Filed, Jan. 9, 1948; 8:46 a. m.; 13 F. R. 150, Jan. 10, 1948.]

Chapter III—Coast Guard: Inspection and Navigation

[CGFR 47-59]

PART 312—PILOT RULES FOR INLAND WATERS

LIGHTS AND DAY SIGNALS FOR VESSELS, BARGES, ETC., PASSING SIGNALS FOR VESSELS, AND PASSING FLOATING PLANT WORKING IN NAVIGABLE CHANNELS

A notice regarding the proposed changes in the regulations for lights and signals for vessels, dredges of all types, and vessels working on wrecks and obstructions, etc., and passing floating plant working in navigable channels, was published in the Federal Register dated August 22, 1947 (12 F. R. 5670), and a public hearing was held by the Merchant Marine Council on September 24, 1947, at Washington, D. C. The written or oral comments submitted were incorporated into the regulations where practicable.

The purpose of the amendments to the regulations regarding lights, signals, and passing floating plant working in navigable channels, is to make editorial changes and minor revisions in order that the regulations will be identical with similar regulations prescribed by the Department of the Army. Under present statutory authority the Commandant of the Coast Guard prescribes the lights and signals for vessels, dredges of all types, and vessels working on wrecks and obstructions, etc., and passing floating plant working in navigable channels, applicable to certain inland waters along the Atlantic and Pacific coasts and the coast of the Gulf of Mexico, while the Secretary of the Army prescribes similar regulations applicable to the Great Lakes and their connecting and tributary waters as far east as Montreal and the Red River of the North, and rivers emptying into the Gulf of Mexico and their tributaries. These regulations are necessary for the protection of life and property and for the safe operation of vessels.

By virtue of the authority vested in me by R. S. 4405, as amended, and section 2, 30 Stat. 102, as amended by 38 Stat. 381; 33 U. S. C. 157, 46 U. S. C. 375; and section 101, Reorganization Plan No. 3 of 1946, 11 F. R. 7875, the following amendments to the regulations are prescribed, which shall become effective on and after March 1, 1948:

1. Sections 312.18 to 312.31 (33 CFR, Supps.) are amended to read as follows:

LIGHTS AND DAY SIGNALS FOR VESSELS, DREDGES OF ALL TYPES, AND VESSELS WORKING ON WRECKS AND OBSTRUCTIONS, ETC.

Sec.

PASSING FLOATING PLANT WORKING NAVIGABLE CHANNELS

AUTHORITY: §§ 312.18 to 312.31a, inclusive, issued under R. S. 4405, as amended, sec. 2, 30 Stat. 102, as amended; 33 U. S. C. 157, 46 U. S. C. 375; and sec. 101, Reorganization Plan No. 3 of 1946, 11 F. R. 7875.

LIGHTS AND DAY SIGNALS FOR VESSELS, DREDGES OF ALL TYPES, AND VESSELS WORKING ON WRECKS AND OBSTRUCTIONS, ETC.

§ 312.18 *Signals to be displayed by a towing vessel when towing a submerged or partly submerged object upon a hawser when no signals can be displayed upon the object which is towed.* (a) The vessel having the submerged object in tow shall display by day, where they can best be seen, two shapes, one above the other, not less than 6 feet apart, the lower shape to be carried not less than 10 feet above the deck house. The shapes shall be in the form of a double frustum of a cone, base to base, not less than 2 feet in diameter at the center nor less than 8 inches at the ends of the cones, and to be not less than 4 feet lengthwise

from end to end, the upper shape to be painted in alternate horizontal stripes of black and white, 8 inches in width, and the lower shape to be painted a solid bright red.

(b) By night the towing vessel shall display the regular side lights but in lieu of the regular white towing lights shall display four lights in a vertical position not less than 3 feet nor more than 6 feet apart, the upper and lower of such lights to be white, and the two middle lights to be red, all of such lights to be of the same character as the regular towing lights.

NOTE: The regulations in §§ 312.18 to 312.31a, inclusive, are applicable on the harbors, rivers, and inland waters along the Atlantic and Pacific coasts and the coast of the Gulf of Mexico. Similar Department of the Army regulations are applicable on the Great Lakes and their connecting and tributary waters as far east as Montreal (Great Lakes) and the Red River of the North and rivers emptying into the Gulf of Mexico and their tributaries ("western rivers"), and are contained in §§ 201.1 to 201.16, inclusive, of this title (*supra*).

§ 312.19 *Steam vessels, derrick boats, lighters, or other types of vessels made fast alongside a wreck, or moored over a wreck which is on the bottom or partly submerged, or which may be drifting.* (a) Steam vessels, derrick boats, lighters, or other types of vessels made fast alongside a wreck, or moored over a wreck which is on the bottom or partly submerged, or which may be drifting, shall display by day two shapes of the same character and dimensions and displayed in the same manner as required by § 312.18 (a), except that both shapes shall be painted a solid bright red, but where more than one vessel is working under the above conditions, the shapes need be displayed only from one vessel on each side of the wreck from which they can best be seen from all directions.

(b) By night this situation shall be indicated by the display of a white light from the bow and stern of each outside vessel or lighter not less than 6 feet above the deck, and in addition thereto there shall be displayed in a position where they can best be seen from all directions two red lights carried in a vertical line not less than 3 feet nor more than 6 feet apart, and not less than 15 feet above the deck.

§ 312.20 *Dredges held in stationary position by moorings or spuds.* (a) Dredges which are held in stationary position by moorings or spuds shall display by day two red balls not less than 2 feet in diameter and carried in a vertical line not less than 3 feet nor more than 6 feet apart, and at least 15 feet above the deck house and in such a position where they can best be seen from all directions.

(b) By night they shall display a white light at each corner, not less than 6 feet above the deck, and in addition thereto there shall be displayed in a position where they can best be seen from all directions two red lights carried in a vertical line not less than 3 feet nor more than 6 feet apart, and not less than 15 feet above the deck. When scows are moored alongside a dredge in the foregoing situation they shall display a white light on each outboard corner, not less than 6 feet above the deck.

§ 312.21 *Self-propelling suction dredges under way and engaged in dredging operations.* (a) Self-propelling suction dredges under way and engaged in dredging operations shall display by day two black balls not less than 2 feet in diameter and carried in a vertical line not less than 15 feet above the deck house, and where they can best be seen from all directions. The terms "dredging operations" shall include maneuvering into or out of position at the dredging site but shall not include proceeding to or from the site.

(b) By night they shall carry, in addition to the regular running lights, two red lights of the same character as the white masthead light, and in the same vertical line beneath that light, the red lights to be not less than 3 feet nor more than 6 feet apart and the upper red light to be not less than 4 feet nor more than 6 feet below the masthead light, and on or near the stern two red lights in a vertical line not less than 4 feet nor more than 6 feet apart, to show through four points of the compass; that is, from right astern to two points on each quarter.

§ 312.22 *Vessels moored or anchored and engaged in laying cables or pipe, submarine construction, excavation, mat sinking, bank grading, dike construction, revetment, or other bank protection operations.* (a) Vessels which are moored or anchored and engaged in laying cables or pipe, submarine construction, excavation, mat sinking, bank grading, dike construction, revetment, or other bank protection operations, shall display by day, not less than 15 feet above the deck, where they can best be seen from all directions, two balls not less than 2 feet in diameter, in a vertical line not less than 3 feet nor more than 6 feet apart, the upper ball to be painted in alternate black and white vertical stripes 6 inches wide, and the lower ball to be painted a solid bright red.

(b) By night they shall display three red lights, carried in a vertical line not less than 3 feet nor more than 6 feet apart, in a position where they can best be seen from all directions, with the lowermost light not less than 15 feet above the deck.

(c) Where a stringout of moored vessels or barges is engaged in the operations, three red lights carried as prescribed in paragraph (b) of this section shall be displayed at the channelward end of the stringout. Where the stringout crosses the navigable channel and is to be opened for the passage of vessels, the three red lights shall be displayed at each side of the opening instead of at the outer end of the stringout. There shall also be displayed upon such stringout one horizontal row of amber lights not less than 6 feet above the deck, or above the deck house where the craft carries a deck house, in a position where they can best be seen from all directions, spaced not more than 50 feet apart so as to mark distinctly the entire length and course of the stringout.

§ 312.23 *Lights to be displayed on pipe lines.* Pipe lines attached to dredges, and either floating or supported on trestles, shall display by night one row of amber lights not less than 8 feet nor more than 12 feet above the water, about equally spaced and in such number as to mark distinctly the entire length and course of the line, the intervals between lights where the line crosses navigable channels to be not more than 30 feet. There shall also be displayed on the shore or discharge end of the line two red lights, 3 feet apart, in a vertical line with the lower light at least 8 feet above the water, and if the line is to be opened at night for the passage of vessels, a similar arrangement of lights shall be displayed on each side of the opening.

§ 312.24 *Lights generally.* (a) All the lights required by §§ 312.18 to 312.23, inclusive, except as provided in §§ 312.18 (b) and 312.21 (b), shall be of such character as to be visible on a dark night with a clear atmosphere for a distance of at least 2 miles.

(b) The lights required by § 312.18 (b) to be of the same character as the regular towing lights and the lights required by § 312.21 (b) to be of the same character as the masthead light shall be of such character as to be visible on a dark night with a clear atmosphere for a distance of at least 5 miles.

(c) All floodlights or headlights which may interfere with the proper navigation of an approaching vessel shall be so shielded that the lights will not blind the pilot of such vessel.

§ 312.25 *Vessels moored or at anchor.* Vessels of more than 65 feet in length when moored or anchored in a fairway or channel shall display between sunrise and sunset on the forward part of the vessel where it can best be seen from other vessels one black ball not less than 2 feet in diameter.

PASSING FLOATING PLANT WORKING IN NAVIGABLE CHANNELS

§ 312.26 *Passing signals.* (a) Vessels intending to pass dredges or other types of floating plant working in navigable channels, when within a reasonable distance therefrom and not in any case over a mile, shall indicate such intention by one long blast of the whistle, and shall be directed to the proper side for passage by the sounding, by the dredge or other floating plant, of the signal prescribed in the local pilot rules for vessels under way and approaching each other from opposite directions, which shall be answered in the usual manner by the approaching vessel. If the channel is not clear, the floating plant shall sound the alarm or danger signal and the approaching vessel shall slow down or stop and await further signal from the plant.

(b) When the pipe line from a dredge crosses the channel in such a way that an approaching vessel cannot pass safely around the pipe line or dredge, there shall be sounded immediately from the dredge the alarm or danger signal and the approaching vessel shall slow down or stop and await further signal from the dredge. The pipe line shall then be opened and the channel cleared as soon as practicable; when the channel is clear for passage the dredge shall so indicate by sounding the usual passing signal as prescribed in paragraph (a) of this section. The approaching vessel shall answer with a corresponding signal and pass promptly.

(c) When any pipe line or swinging dredge shall have given an approaching vessel or tow the signal that the channel is clear, the dredge shall straighten out within the cut for the passage of the vessel or tow.

NOTE: The term "floating plant" as used in §§ 312.26 to 312.31a, inclusive, includes dredges, derrick boats, snag boats, drill boats, pile drivers, maneuver boats, hydraulic graders, survey boats, working barges, and mat sinking plant.

§ 312.27 *Speed of vessels passing floating plant working in channels.* Vessels, with or without tows, passing floating plant working in channels, shall reduce their speed sufficiently to insure the safety of both the plant and themselves, and when passing within 200 feet of the plant their speed shall not exceed 5 miles per hour. While passing over lines of the plant, propelling machinery shall be stopped.

§ 312.28 *Light-draft vessels passing floating plant.* Vessels whose draft permits shall keep outside of the buoys marking the ends of mooring lines of floating plant working in channels.

§ 312.29 *Aids to navigation marking floating-plant moorings.* Breast, stern, and bow anchors of floating plant working in navigable channels shall be marked by barrel or other suitable buoys. By night approaching vessels shall be shown the location of adjacent buoys by throwing a suitable beam of light from the plant on the buoys until the approaching vessel has passed, or the buoys may be lighted by red lights, visible in all directions, of the same character as specified in § 312.24 (a): *Provided*, That the foregoing provisions of this section shall not apply to the following waters of New York Harbor and adjacent waters: the East River, the North River (Battery to Spuyten Duyvil), the Harlem River and the New York and New Jersey Channels (from the Upper Bay through Kill Van Kull, Newark Bay, Arthur Kill, and Raritan Bay to the Lower Bay).

§ 312.30 *Obstruction of channel by floating plant.* Channels shall not be obstructed unnecessarily by any dredge or other floating plant. While vessels are passing such plant, all lines running therefrom across the channel on the passing side, which may interfere with or obstruct navigation, shall be slacked to the bottom of the channel.

§ 312.31 *Clearing of channels.* When special or temporary regulations have not been prescribed and action under the regulations contained in §§ 312.26 to 312.30, inclusive, will not afford clear passage, floating plant in narrow channels shall, upon notice, move out of the way of vessels a sufficient distance to allow them a clear passage. Vessels desiring passage shall, however, give the master of the floating plant ample notice in advance of the time they expect to pass.

NOTE: If it is necessary to prohibit or limit the anchorage or movement of vessels within certain areas in order to facilitate the work of improvement, application should be made through official channels for establishment by the Secretary of the Army of special or temporary regulations for this purpose.

§ 312.31a *Protection of marks placed for the guidance of floating plant.* Vessels shall not run over anchor buoys, or buoys, stakes, or other marks placed for the guidance of floating plant working in channels; and shall not anchor on the ranges of buoys, stakes, or other marks placed for the guidance of such plant.

2. Part 312 is amended by inserting the following center heading to immediately precede § 312.32: "Lights for rafts and other craft not provided for."

Dated: December 11, 1947.

[SEAL] J. F. FARLEY,
Admiral, U. S. Coast Guard,
Commandant.

[F. R. Doc. 48-341; Filed, Jan. 9, 1948; 8:46 a. m.; 13 F. R. 152, Jan. 10, 1948.]

TITLE 46—SHIPPING

Chapter I—Coast Guard: Inspection and Navigation

A notice regarding the proposed changes in the regulations for distress signals, specifications for distress signals, and manning of seagoing barges was published in the FEDERAL REGISTER dated August 22, 1947 (12 F. R. 5670), and public hearings were held by the Merchant Marine Council on September 23 and 24, 1947, at Washington, D. C. All the written and oral comments submitted were considered.

The purpose for the amendments to the regulations regarding distress signals is to allow an additional alternate to existing requirements and to publish the minimum standard specifications for the various types of distress signals.

The purpose for the regulations regarding manning of seagoing barges is to make uniform the requirements and to allow such barges to be unmanned unless in the judgment of the Officer in Charge, Marine Inspection, United States Coast Guard, such manning is necessary for the protection of life and property and for the safe operation of the vessel.

By virtue of the authority vested in me by R. S. 4405, as amended, 46 U. S. C. 375, and section 101 of Reorganization Plan No. 3 of 1946, 11 F. R. 7875, as well as the statutes cited with the regulations below, the following amendments to the regulations are prescribed:

Subchapter D—Tank Vessels

PART 31—INSPECTION AND CERTIFICATION

MANNING OF TANK VESSELS

Section 31.4-2 is amended to read as follows:

§ 31.4-2 *Tank barges — B/ALL.* Tank barges need not be manned unless in the judgment of the Officer in Charge, Marine Inspection, such manning is necessary for the protection of life and property and for the safe operation of the vessel: *Provided, however*, That towing vessels, while towing barges which are not required to be manned, shall carry in the regular complement of the towing vessel and shall have on board at all times while towing, at least one licensed officer or certificated tankerman. (R. S. 4417a, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 391a, 50 U. S. C 1275)

PART 33—LIFESAVING APPLIANCES

EQUIPMENT, LIFEBOATS, LIFE RAFTS, AND BUOYANT APPARATUS

1. Section 33.3-1 is amended by deleting paragraph (bb) and by changing paragraph (e) to read as follows:

§ 33.3–1 *Tank ship lifeboat equipment; ocean and coastwise—T/OC.* * * *

(e) *Distress signals.* Twelve approved hand red flare distress signals in a watertight container, and four approved floating orange smoke distress signals; or twelve approved hand combination flare and smoke distress signals in a watertight container. Service use shall be limited to a period of 3 years from date of manufacture. Distress signals not bearing date of manufacture shall not be carried after January 1, 1949. (For specifications for the above signals, see subparts 160.021, 160.022, and 160.023 in subchapter Q of this chapter.) (R. S. 4417a, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 391a, 50 U. S. C. 1275)

2. Section 33.3–2 is amended by changing the phrase "distress lights" to "distress signals" in paragraphs (f) and (t) and by changing paragraph (e) to read as follows:

§ 33.3–2 *Tank ship lifeboat equipment; Great Lakes—T/L.* * * *

(e) *Distress signals.* Twelve approved hand red flare distress signals in a watertight container, or twelve approved hand combination flare and smoke distress signals in a watertight container. Service use shall be limited to a period of 3 years from date of manufacture. Distress signals not bearing date of manufacture shall not be carried after January 1, 1949. (For specifications for the above signals, see subparts 160.021, 160.022, and 160.023 in subchapter Q of this chapter.) Either an approved flashlight or an approved signal pistol with 12 approved parachute flare cartridges may be substituted for 6 of the above distress signals. (R. S. 4417a, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 391a, 50 U. S. C. 1275)

3. Section 33.3–5 *Tank ships; life raft equipment, ocean, coastwise—T/OC* is deleted. (R. S. 4417a, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 391a, 50 U. S. C. 1275)

4. Section 33.3–6 (b) is amended to read as follows:

§ 33.3–6 *Life raft equipment—T/L.* * * *

(b) *Distress signals.* Twelve approved hand red flare distress signals in a watertight container, or 12 approved hand combination flare and smoke distress signals in a watertight container. Service use shall be limited to a period of 3 years from date of manufacture. Distress signals not bearing date of manufacture shall not be carried after January 1, 1949. (For specifications for the above signals, see subparts 160.021, 160.022, and 160.023 in subchapter Q of this chapter.) (R. S. 4417a, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 391a, 50 U. S. C. 1275)

DISTRESS LIGHTS AND SIGNALING LAMP

5. Section 33.8–1 is amended to read as follows:

§ 33.8–1 *Distress signals—T/ALL and B/OC.* On every vessel of 150 gross tons and over there shall be carried within the pilothouse or upon the navigator's bridge, 12 approved hand red flare distress signals in a watertight container, or 12 approved hand combination flare and smoke distress signals in a watertight container. Service use shall be limited to a period of 3 years from date of manufacture. Distress signals not bearing date of manufacture shall not be carried after January 1, 1949. (For specifications for the above signals, see subparts 160.021, 160.022, and 160.023 in subchapter Q of this chapter.) (R. S. 4417a, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 391a, 50 U. S. C. 1275)

PART 35—OPERATION

GENERAL

Section 35.1–4 (b) is amended to read as follows:

§ 35.1–4 *Watchman.* * * *

(b) *Unmanned barge—B/ALL.* On each normally unmanned barge in tow a strict watch shall be kept at all times from the towing vessel while the vessel is under way, and the same shall apply at all times while the barge is moored at a dock unless the barge is gas free or watchman service is provided or unless reasonable precaution is taken to prevent unauthorized persons from boarding the barge. These watchmen may be members of the regular complement of the towing vessel. (R. S. 4417a, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 391a, 50 U. S. C. 1275)

Subchapter G—Ocean and Coastwise: General Rules and Regulations

PART 59—BOATS, RAFTS, BULKHEADS, AND LIFESAVING APPLIANCES (OCEAN)

1. Section 59.11 is amended by deleting paragraph (cc) and by changing paragraph (e) to read as follows:

§ 59.11 *Lifeboat equipment.* * * *

(e) *Distress signals.* Twelve approved hand red flare distress signals in a watertight container, and 4 approved floating orange smoke distress signals; or 12 approved hand combination flare and smoke distress signals in a watertight container. Service use shall be limited to a period of 3 years from date of manufacture. Distress signals not bearing date of manufacture shall not be carried after January 1, 1949. (For specifications for the above signals, see subparts 160.021, 160.022, and 160.023 in subchapter Q of this chapter.) (R. S. 4426, 4488, 4491, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 404, 481, 489, 1333, 50 U. S. C. 1275)

2. Section 59.52 is amended by deleting paragraph (n) and by changing paragraph (a) to read as follows:

§ 59.52 *Equipment for life rafts.* * * *

(a) *Distress signals.* Twelve approved hand red flare distress signals in a watertight container, and 4 approved floating orange smoke distress signals; or 12 approved hand combination flare and smoke distress signals in a watertight container. Service use shall be limited to a period of 3 years from date of manufacture. Distress signals not bearing date of manufacture shall not be carried after January 1, 1949. (For specifications for the above signals, see subparts 160.021, 160.022, and 160.023 in subchapter Q of this chapter.) (R. S. 4426, 4488, 4491, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 404, 481, 489, 1333, 50 U. S. C. 1275)

PART 60—BOATS, RAFTS, BULKHEADS, AND LIFESAVING APPLIANCES (COASTWISE)

1. Section 60.9 is amended by deleting paragraph (cc) and by changing paragraph (e) to read as follows:

§ 60.9 *Lifeboat equipment.* (See § 59.11 of this chapter, as amended, which is identical with this section.)

2. Section 60.45 is amended by deleting paragraph (n) and by changing paragraph (a) to read as follows:

§ 60.45 *Equipment for life rafts.* (See § 59.52 of this chapter, as amended, which is identical with this section.)

PART 62—SPECIAL OPERATING REQUIREMENTS

1. The heading for Part 62 is hereby changed from "Licensed Officers and Certificated Men" to "Special Operating Requirements."

2. Part 62 is amended by adding a new § 62.19a reading as follows and to immediately follow § 62.19:

§ 62.19a *Manning of seagoing barges.* The determination as to whether a seagoing barge shall be manned or not shall be made by the Officer in Charge, Marine Inspection. Permission may be granted for such barges to operate unmanned when in

the opinion of the Officer in Charge, Marine Inspection, manning is not necessary for the safe operation of the vessel and where it appears that the requirements of the rules as to lights, etc., will be met. In any case the certificate of inspection should specify whether or not the barge is to be manned, the number and grade of the crew, when carried, and the conditions of operation when no crew is required. These conditions may include limitation as to loading, route, cargo, season of operation, etc. (R. S. 4463, and sec. 10, 35 Stat. 428, as amended; 46 U. S. C. 222, 395)

Subchapter H—Great Lakes: General Rules and Regulations

PART 76—BOATS, RAFTS, BULKHEADS, AND LIFESAVING APPLIANCES

1. Section 76.14 (e) is amended to read as follows:

§ 76.14 *Equipment for lifeboats on vessels of classes (a), (b), (c), (d), and (e).* * * *

(e) *Distress signals.* Twelve approved hand red flare distress signals in a watertight container, or 12 approved hand combination flare and smoke distress signals in a watertight container. Service use shall be limited to a period of 3 years from date of manufacture. Distress signals not bearing date of manufacture shall not be carried after January 1, 1949. (For specifications for the above signals, see subparts 160.021, 160.022, and 160.023 in subchapter Q of this chapter.) Either an approved flashlight or an approved signal pistol with 12 approved parachute flare cartridges may be substituted for six of the above distress signals. (R. S. 4426, 4488, 4491, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 404, 481, 489, 1333, 50 U. S. C. 1275)

2. Section 76.48 (b) is amended to read as follows:

§ 76.48 *Equipment for life rafts on vessels of classes (a), (b), (c), (d), and (e).* * * *

(b) *Distress signals.* Six approved hand red flare distress signals in a watertight container, or six approved hand combination flare and smoke distress signals in a watertight container. Service use shall be limited to a period of 3 years from date of manufacture. Distress signals not bearing date of manufacture shall not be carried after January 1, 1949. (For specifications for the above signals, see subparts 160.021, 160.022, and 160.023 in subchapter Q of this chapter.) (R. S. 4426, 4488, 4491, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 404, 481, 489, 1333, 50 U. S. C. 1275)

3. Section 76.60 is amended to read as follows:

§ 76.60 *Distress signals in pilothouse or on navigator's bridge.* On every inspected vessel of 150 gross tons and over, there shall be carried within the pilothouse or upon the navigator's bridge, 12 approved hand red flare distress signals in watertight container, or 12 approved hand combination flare and smoke distress signals in a watertight container. Service use shall be limited to a period of 3 years from date of manufacture. Distress signals not bearing date of manufacture shall not be carried after January 1, 1949. (For specifications for the above signals, see subparts 160.021, 160.022, and 160.023 in Subchapter Q of this chapter.) (R. S. 4426, 4488, 4491, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 404, 481, 489, 1333, 50 U. S. C. 1275)

Subchapter K—Seamen

PART 141—MANNING OF INSPECTED VESSELS

Part 141 is amended by adding a new § 141.3 reading as follows:

§ 141.3 *Manning of seagoing barges.* (See § 62.19a of this chapter which is identical with this section.)

Subchapter Q—Specifications

PART 160—LIFESAVING EQUIPMENT

Copies of these specifications, which are not printed herein due to lack of space, may be obtained upon request from the Commandant (MMT), United States Coast Guard, Washington 25, D. C.

SUBPART 160.021—SIGNALS, DISTRESS, FLARE, RED, HAND, FOR MERCHANT VESSELS

Sec.
160.021–1 Applicable specifications and plans.
160.021–2 Type.
160.021–3 Materials, workmanship, construction, and performance requirements.
160.021–4 Sampling, inspections, conditioning, and tests.
160.021–5 Labeling and marking.
160.021–6 Container.
160.021–7 Procedure for approval.

SUBPART 160.022—SIGNALS, DISTRESS, SMOKE, ORANGE, FLOATING FOR MERCHANT VESSELS

160.022–1 Applicable specifications.
160.022–2 Type.
160.022–3 Materials, workmanship, construction, and performance requirements.
160.022–4 Sampling, inspections, conditioning, and tests.
160.022–5 Marking.
160.022–6 Procedure for approval.

SUBPART 160.023—SIGNALS, DISTRESS, COMBINATION FLARE AND SMOKE, HAND, FOR MERCHANT VESSELS

160.023–1 Applicable specifications.
160.023–2 Type.
160.023–3 Materials, workmanship, construction, and performance requirements.
160.023–4 Sampling, inspections, and tests.
160.023–5 Labeling and marking.
160.023–6 Container.
160.023–7 Procedure for approval.

(12 F. R. 7073, October 31, 1947)

Equipment Approval by the Commandant

APPROVAL OF EQUIPMENT; TERMINATION OF APPROVAL OF EQUIPMENT

By virtue of the authority vested in me by R. S. 4405 and 4491, as amended (46 U. S. C. 375, 491a), and section 101 of Reorganization Plan No. 3 of 1946 (11 F. R. 7875), as well as the additional authorities cited with each class of equipment, the following approvals of equipment and termination of approvals are prescribed:

BUOYANT CUSHIONS, STANDARD

NOTE: Cushions are for use on motorboats of classes A, 1 and 2 not carrying passengers for hire.

Approval No. 160.007/57/0, Standard kapok buoyant cushion, U. S. C. G. Specification 160.007, manufactured by Orr and Baker, 1303½ Tenth Street, Port Huron, Mich.

(54 Stat. 164, 166; 46 U. S. C. 526e, 526p; 46 CFR 25.4–1, 28.4–8)

BUOYANT CUSHIONS, NONSTANDARD

NOTE: Cushions are for use on motorboats of classes A, 1 and 2 not carrying passengers for hire.

Approval No. 160.008/377/0, 17 by 17 by 2½ inches rectangular buoyant cushion, 33 ounce kapok, U. S. C. G. Specification 160.008, specifications and drawing dated 25 September 1947, manufactured by Orr and Baker, 1303½ Tenth Street, Port Huron, Mich.

Approval No. 160.008/378/0, 15 by 15 by 2 inches rectangular buoyant cushion, 20 ounce kapoc, plastic film cover, plastic straps, heat-sealed seams, specifications dated 8 July 1947, manufactured by the Watertight Slide Fastener Corp., 15 Whitehall Street, New York 4, N. Y.

(54 Stat. 164, 166; 46 U. S. C. 526e, 526p; 46 CFR 25 4–1, 28.4–8; 12 F. R. 7094, October 31, 1947.)

SIGNALS, DISTRESS, COMBINATION FLARE AND SMOKE, HAND

Approval No. 160.023/1/0, A–P Daynite hand combination flare and smoke distress signal, arrangement Drawing No. 4500–AR, Rev. No. 3, dated 17 June 1946, manufactured by Aerial Products, Inc., Merrick, Long Island, N. Y. (12 F. R. 7123, November 1, 1947.)

TERMINATION OF APPROVAL OF HEATING BOILER

The following approval for a heating boiler is terminated because the heating boiler is no longer being manufactured.

Termination of Approval No. 162.003/15/0, Farquhar heating boiler, vertical fire tube, welded steel plate, material, design and construction in conformance with United States Coast Guard Marine Engineering Regulations and Material Specifications, parts 51, 52, and 56, maximum working pressure 15 pounds per square inch, manufactured by A. B. Farquhar Co., York, Pa. (Published in FEDERAL REGISTER July 31, 1947, 12 F. R. 5223) (12 F. R. 7094, October 31, 1947)

CONDITIONS OF APPROVAL AND TERMINATION OF APPROVAL

The above approvals of equipment shall be effective for a period of 5 years from date of publication in the FEDERAL REGISTER unless sooner canceled or suspended by proper authority.

The termination of approval of equipment made by this document shall be made effective upon the thirty-first day after the date of publication of this document in the Federal Register. Notwithstanding this termination of approval on any item of equipment, such equipment manufactured before the effective date of termination of approval may be used so long as it is in good and serviceable condition.

SHIPS' STORES AND SUPPLIES

Articles of ships' stores and supplies certificated from December 25, 1947, to January 25, 1948, inclusive, for use on board vessels in accordance with the provisions of part 147 of the regulations governing "Explosives and Other Dangerous Articles on Board Vessels:"

The Johnson-March Corp., 52 Vanderbilt Avenue, New York 17, N. Y., dated January 21, 1948, certification No. 238, *Seabrite*.

Sumco Products, Inc., 144–146 Centre Street, Brooklyn 31, N. Y., dated January 21, 1948, certification No. 239, *Sumco Suds*.

The following certification has been canceled:

R. G. A. Laboratories, 145 West Forty-fifth Street, New York, N. Y., dated January 16, 1948, certification No. 183, *Seabrite*.

FUSIBLE PLUGS

The Marine Engineering Regulations and Material Specifications require that manufacturers submit samples from each heat of fusible plugs to the Commandant for test prior to plugs manufactured from the heat being used on vessels subject to inspection by the Coast Guard. A list of approved heats which have been tested and found acceptable during the period from December 5, 1947, to January 15, 1948, is as follows:

The Lunkenheimer Co., Postoffice Box 360, Annex Station, Cincinnati 14, Ohio. Heat Nos. 297 to 303, inclusive.

AFFIDAVITS

The following affidavit was accepted during the period December 5, 1947, to January 15, 1948.

Johnson Service Co., 507 East Michigan Street, Milwaukee 2, Wis. Valves.

ELECTRICAL APPLIANCES

The following list supplements that published by the United States Coast Guard under date of May 15, 1943, entitled "Miscellaneous Electrical Equipment Satisfactory for Use on Merchant Vessels," as well as subsequently published list, and is for the use of Coast Guard personnel in their work of inspecting merchant vessels. Other electrical items not contained in this pamphlet and subsequent listings may also be satisfactory for marine use but should not be so considered until the item is examined and listed by Coast Guard Headquarters. Before listings of electrical appliances are made, it is necessary for the manufacturer to submit to The Commandant (MMT), United States Coast Guard, Washington 25, D. C., duplicate copies of a detail assembly drawing, including a material list with finishes of each corrosive part of each item.

Manufacturer and description of equipment	Location apparatus may be used				Date of action
	Passenger and crew quarters and public spaces	Machinery cargo and work spaces	Open decks	Pump rooms of tank vessels	
Control Instrument Co., Inc., Brooklyn 32, N. Y.:					
Salinity indicating equipment:					
Panel assembly and wiring diagram, type 17–B, drawing Nos. 22623, alt. 1, 22624, alt. 2, and 22630, alt. 1	X	X			1/6/48
Panel assembly, wiring diagram, and calibrating resistor assembly, type 12A, drawing Nos. 22760, alt. 2, 22766, alt. 0, and 22761, alt. 2	X	X			1/6/48
Panel assembly and wiring diagram, type 55–B, drawing Nos. 22794, alt. 0, and 22795, alt. 0	X	X			1/6/48
Test resistor assembly, drawing No. 22108, alt. 0	X	X			1/6/48
Henschel Corp., Amesbury, Mass.:					
Transfer relay for engine order telegram system, waterproof, 115-volt, 60-cycles, a. c., drawing No. 60-183, alt. 0	X	X	X		12/15/47
Lovell-Dressel Co., Inc., Arlington, N. J.:					
Cargo light, portable, 5 100-watt lamps maximum, Catalog No. 615, drawing No. M–5353, alt. 4	X	X			1/13/48
Murlin Mfg. Co., Philadelphia 43, Pa.:					
Ceiling fixture, nonwatertight, 8 75-watt lamps maximum, A. T. S. type No. 20, drawing No. 1217, alt. 3	X				11/19/47
The Newport News Shipbuilding & Dry Dock Co., Newport News, Va.:					
Ceiling fixture, nonwatertight, 50-watt lamp maximum, assembly Nos. 98 and 90, drawing No. 182938, alt. 1	X				12/16/47
The Portable Light Co., Inc., New York 7, N. Y.:					
Floodlight, 11-inch, 300-500 watts maximum, 115 volts, drawing No. 1240, alt. 1	X	X	X		1/13/48
Russell & Stoll Co., Inc., New York, N. Y.:					
Receptacle, ever-lok flush type, nonwatertight, with hinged door, for mounting on standard outlet box, Catalog Nos. 8048 (2 wire, 2 pole), 8049 (2 wire, 3 pole) and 8050 (3 wire,4 pole), 20 amperes, 440 volts a. c., 30 amperes, 250 volts d. c., drawing No. F–2698, alt. 1	X				12/8/47
The Simes Co., Inc., College Point, Long Island, N. Y.:					
Berth and mirror light, nonwatertight, 1 25-watt lamp maximum, type No. 11, drawing No. 43621, alt. 0	X				11/19/47
Desk lamp, nonwatertight, 1 25-watt lamp maximum, type No. 7, drawing No. 43629, alt. 0	X				11/19/47
Ceiling light, nonwatertight, 4 60-watt lamps maximum, type No. 16, drawing No. 43630, alt. 0	X				11/19/47
Ceiling light, nonwatertight, 1 10-watt lamp maximum, type No. 6, drawing No. 43692, alt. 0	X				11/19/47
Ceiling light, nonwatertight, 3 60-watt lamps maximum, type No. 13, drawing No. 43716, alt. 0	X				11/19/47
Double desk lamp, nonwatertight, 1 100-watt lamp maximum, drawing No. 43242–C, alt. 3	X				11/24/47
Table lamp, nonwatertight, 1 100-watt lamp maximum, drawing No. 43462, alt. 2	X				11/24/47
Trough light, nonwatertight, 9 40-watt lamps maximum, drawing No. 43604–C, alt. 2	X				11/24/47
Mirror trough light, nonwatertight, 9 40-watt lamps maximum, drawing No. 43604–M, alt. 3	X				11/24/47
Flower box and indirect light, nonwatertight, 3 40-watt lamps maximum, drawing No. 43698, alt. 2	X				11/24/47
Wall bracket light, nonwatertight, 1 50-watt lamp, maximum, drawing No. 43699–C, alt. 2	X				11/24/47

Merchant Marine Personnel Statistics

MERCHANT MARINE LICENSES ISSUED DURING DECEMBER 1947

DECK OFFICERS

Region	Master										Chief mate										Second mate									
	Ocean		Coastwise		Great Lakes		B. S. & L.		Rivers		Ocean		Coastwise		Great Lakes		B. S. & L.		Rivers		Ocean		Coastwise		Great Lakes		B. S. & L.		Rivers	
	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R
Atlantic coast	19	40	4	5	----	1	4	18	----	4	10	7	----	----	----	----	----	1	----	----	24	9	----	----	----	----	----	----	----	----
Gulf coast	5	11	1	1	----	1	1	1	2	2	5	2	----	----	----	----	----	----	----	2	4	1	----	----	----	----	----	----	----	----
Great Lakes and rivers	----	----	----	----	----	4	----	----	1	9	----	----	----	----	----	----	----	----	4	3	----	----	----	----	----	----	----	----	----	----
Pacific coast	13	29	2	1	----	----	----	7	----	----	7	3	----	----	----	----	1	1	----	----	15	8	----	----	----	----	----	----	----	----
Total	37	80	7	7	----	6	5	26	3	15	22	12	----	----	----	----	1	2	4	5	43	18	----	----	----	----	----	----	----	----

Region	Third mate										Pilots						Master mate				Total		
	Ocean		Coastwise		Great Lakes		B. S. & L.		Rivers		Great Lakes		B. S. & L.		Rivers		Uninspected vessels, high seas				Original	Renewal	Grand total
	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R			
Atlantic coast	3	5	----	----	----	----	----	----	----	----	----	1	22	33	2	20	----	5	----	----	88	149	237
Gulf coast	6	1	----	----	----	----	----	----	----	----	----	1	4	10	2	6	----	----	----	----	30	39	69
Great Lakes and rivers	----	1	----	----	----	----	----	----	----	----	3	6	----	----	15	10	----	----	----	----	23	33	56
Pacific coast	2	4	----	----	----	----	----	----	----	----	----	1	4	25	----	----	9	2	6	1	59	82	141
Total	11	11	----	----	----	----	----	----	----	----	3	9	30	68	19	36	9	7	6	1	200	303	503

ENGINEER OFFICERS

Region	Chief engineer, steam				First assistant engineer, steam				Second assistant engineer, steam				Third assistant engineer, steam				Chief engineer, motor			
	Unlimited		Limited		Unlimited		Limited		Unlimited		Limited		Unlimited		Limited		Unlimited		Limited	
	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R
Atlantic coast	13	71	3	41	17	19	----	2	14	17	----	----	8	15	----	----	1	13	1	17
Gulf coast	4	25	1	7	3	2	----	2	3	4	----	----	1	1	----	----	----	5	2	2
Great Lakes and rivers	----	3	4	11	----	----	----	3	----	1	----	----	----	----	----	----	----	1	----	----
Pacific coast	7	31	1	3	8	7	----	2	6	4	----	----	6	9	----	----	----	6	7	5
Total	24	130	9	62	28	28	----	9	23	26	----	----	15	25	----	----	1	25	10	24

Region	First assistant engineer, motor				Second assistant engineer, motor				Third assistant engineer, motor				Uninspected vessels				Total		
	Unlimited		Limited		Unlimited		Limited		Unlimited		Limited		Chief engineer		Assistant engineer		Original	Renewal	Grand total
	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R			
Atlantic coast	----	2	1	----	2	1	----	5	1	5	----	----	----	----	----	----	61	208	269
Gulf coast	----	1	----	----	1	1	----	----	----	1	----	----	----	----	----	----	15	51	66
Great Lakes and rivers	----	----	1	1	----	----	----	----	----	----	----	----	----	----	----	----	5	20	25
Pacific coast	1	1	----	----	----	----	----	----	3	13	----	----	----	----	----	----	39	81	120
Total	1	4	2	1	3	2	----	5	4	19	----	----	----	----	----	----	120	360	480

ORIGINAL SEAMEN'S DOCUMENTS ISSUED MONTH OF DECEMBER 1947

Region	(1) Staff officer	(2) Continuous discharge book	(3) U. S. Merchant mariner's documents	(4) AB any waters unlimited	(5) AB any waters 12 months	(6) AB Great Lakes 18 months	(7) AB tugs and towboats any waters	(8) AB [1] bays and sounds	(9) AB seagoing barges	(10) Lifeboatman	(11) Q. M. E. D.	(12) Radio operators	(13) Certificate of service	(14) Tankerman
Atlantic coast	67	152	1,118	80	152	2	1	0	0	457	258	22	954	18
Gulf coast	10	15	556	15	76	2	0	0	0	98	130	6	465	15
Pacific coast	27	0	634	40	73	2	0	0	0	207	99	6	541	5
Great Lakes and rivers	1	4	249	10	53	30	0	0	0	63	83	2	226	23
Total	105	171	2,557	145	354	36	1	0	0	825	570	36	2,186	61

[1] 12 months, vessels 500 gross tons or under not carrying passengers.

NOTE.—Columns 4 through 14 indicate endorsements made on U. S. merchant mariner's documents.

WAIVERS OF MANNING REQUIREMENTS FROM DEC. 1 TO DEC. 31, 1947

Authority for These Waivers Contained in Navigation and Vessel Inspection Circular No. 8–47, Dated Aug. 21, 1947

Region	Number of vessels	Deck officers substituted for higher ratings	Engineer officers substituted for higher ratings	Able seamen substituted for deck officers	Ordinary seamen substituted for able seamen	Qualified members of engine department substituted for engineer officers	Wipers or coal passers substituted for qualified members of engine department	Wipers, coal passers or cadets substituted for engineer officers	Ordinary seamen or cadets substituted for deck officers	Total
Atlantic coast	290	9	34	2	471	5	136	2	.....	659
Gulf coast	118	2	10	.....	169	3	39	.....	.....	223
Pacific coast	84	1	6	.....	116	4	41	.....	.....	168
Great Lakes	85	.....	1	.....	95	2	123	.....	.....	221
Total	586	12	51	2	851	14	339	2	.....	1,271

CREW SHORTAGE REPORTS FROM DEC. 1 TO DEC. 31, 1947

These Reports Submitted in Accordance With Navigation and Vessel Inspection Circular No. 8–47, Dated Aug. 21, 1947

Region	Number of vessels	Ratings in which shortages occurred												Total
		Chief mate	Second mate	Third mate	Radio	Able seamen	Ordinary seamen	Chief engineer	First engineer	Second engineer	Third engineer	Qualified member engine department	Wiper or coal passer	
Atlantic coast	7	.....	.....	.....	.....	1	10	.....	.....	.....	.....	2	.....	13
Gulf coast	7	.....	1	.....	1	2	4	.....	.....	1	1	1	1	12
Pacific coast	3	.....	.....	.....	.....	1	3	.....	.....	.....	.....	.....	1	5
Great Lakes	129	2	1	15	.....	53	34	1	5	8	18	56	39	232
Total	146	2	2	15	1	57	51	1	5	9	19	59	41	262

U. S. GOVERNMENT PRINTING OFFICE: 1948