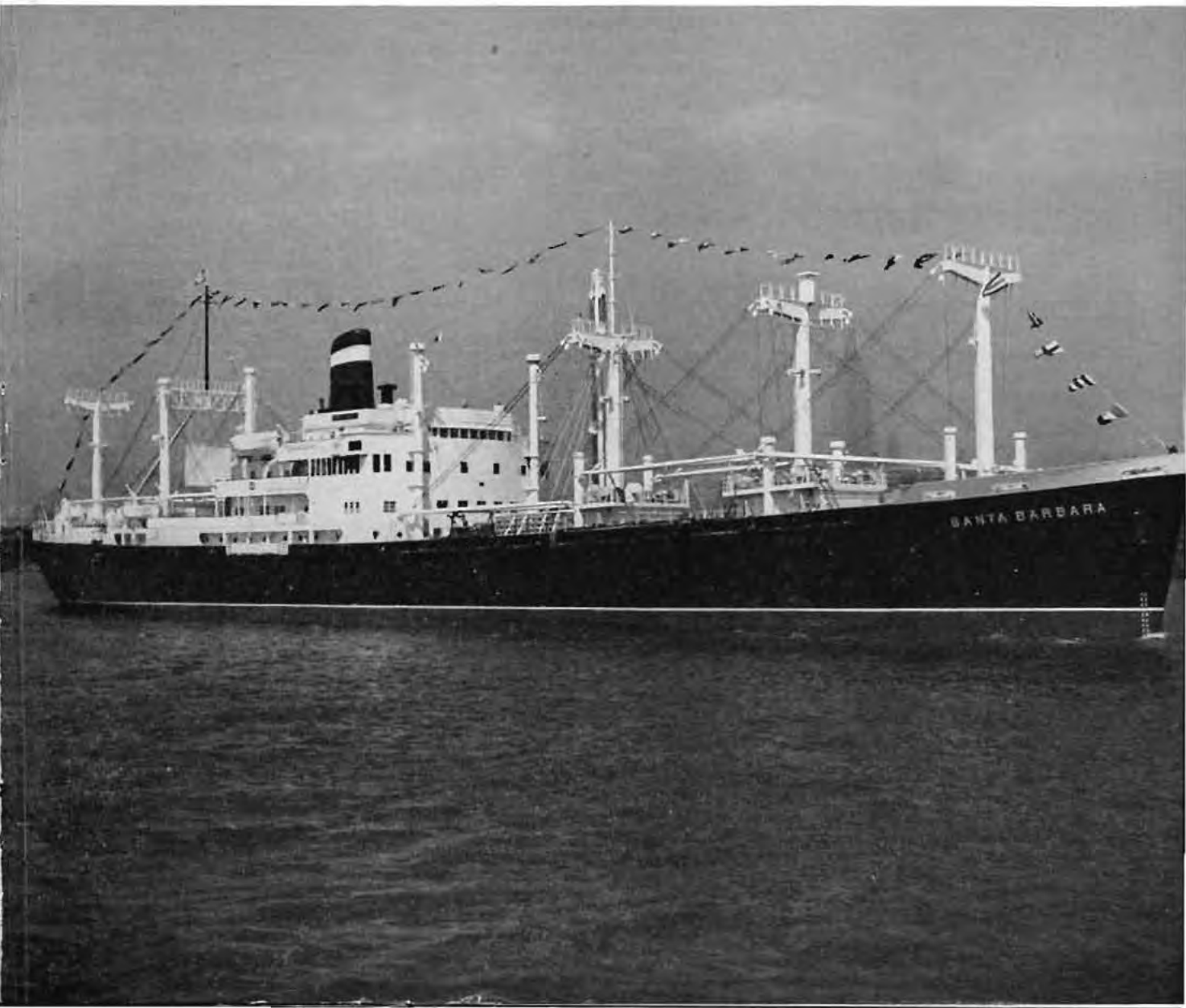
PROCEEDINGS OF THE
MERCHANT MARINE COUNCIL
UNITED STATES COAST GUARD

Vol. 4 March 1947 No. 3



Proceedings of the

MERCHANT MARINE COUNCIL

Published monthly at Coast Guard Headquarters, under the auspices of the Merchant Marine Council, in the interest of safety at sea. There are no restrictions on the republication of material, except the cover picture, appearing in this issue. Mention of source will be appreciated.

The Merchant Marine Council of the United States Coast Guard

Admiral J. F. FARLEY, U. S. C. G.
Commandant of the Coast Guard

Commodore HALERT C. SHEPHEARD,
U. S. C. G. R., *Chairman*
Chief, Office of Merchant Marine Safety, U. S. C. G.

Captain A. C. RICHMOND
U. S. C. G., *Member*
Chief, Planning and Control Staff, U. S. C. G.

Captain ROY L. RANEY,
U. S. C. G., *Member*
Vice Chairman, Assistant Chief, Office of Merchant Marine Safety.

Captain KENNETH K. COWART,
U. S. C. G., *Member*
Assistant Chief, Office of Engineering.

Captain ROBERT E. COOMBS,
U. S. C. G. R., *Member*
Assistant Chief, Merchant Vessel Inspection Division, U. S. C. G.

Captain HENRY T. JEWELL,
U. S. C. G., *Member*
Chief, Merchant Marine Personnel Division, U. S. C. G.

Captain ROBERT A. SMYTH,
U. S. C. G. R., *Member*
Chief, Merchant Marine Technical Division, U. S. C. G.

Mr. KENNETH S. HARRISON,
Chief Counsel, U. S. C. G.

Captain JOSEPH A. KERRINS,
U. S. C. G., *Secretary*

For each meeting two District Commanders and three Marine Inspection Officers are designated as members by the Commandant.

CONTENTS

	Page
Council Activities	42
Yachting and Motorboat Panel	43
Fog Generating Equipment for Fire Fighting on Board Ship	44
International Ice Patrol	48
Merchant Vessel Casualty Statistics	49
Numbering of Undocumented Vessels	49
Marine Information Broadcasts	50
The *Santa Barbara*	51
Lessons From Casualties:	
Remember Your Responsibility	51
"Horse Play" at Work	52
Follow Directions Faithfully	53
Check Your Compass	53
Appendix:	
Proposed Rule Making	53
Amendments to Regulations	56
Navigation and Vessel Inspection Circular No. 0-47	58
Equipment Approved by the Commandant	60

Cover Picture: S. S. *Santa Barbara*, photo Courtesy Grace Lines

COUNCIL ACTIVITIES

The Merchant Marine Council held a public hearing in Room 8205, Coast Guard Headquarters, Thirteenth and E Streets NW., Washington, D. C., on March 26, 27, and 28, 1947. The Council received and considered all the comments and suggestions made on the proposed amendments in regulations which were described in a notice published in the Federal Register on February 18, 1947, 12 F. R. 1109. In the February 1947 issue of the "Proceedings" these proposed amendments were also described. The final recommendations of the Council will be published in the near future.

The Commandant approved the amendments to the regulations regarding licensing and certificating of merchant marine officers and seamen which were recommended by the Merchant Marine Council as a result of the comments and suggestions and proposed changes in regulations considered at the public hearing held by the Council on October 22, 1946. This hearing was in accordance with the notice published in the Federal Register of September 27, 1946.

The revised regulations consolidate all the existing regulations regarding licensing and certificating of merchant marine officers and seamen into a new subchapter B entitled, "Merchant Marine Officers and Seamen," in chapter I of title 46 of the Code of Federal Regulations and cancels the existing regulations now appearing in subchapter C, Motorboat Regulations, subchapter D, Tank Vessel Regulations, subchapter G, Ocean and Coastwise General Rules and Regulations, subchapter H, Great Lakes General Rules and Regulations, subchapter I, Bays, Sounds, and Lakes Other Than the Great Lakes General Rules and Regulations, subchapter J, Rivers General Rules and Regulations, subchapter K, Seamen Regulations, and subchapter O, Emergency Regulations. The regulations are in two parts entitled, "Part 10—Licensing of Deck and Engineer Officers and Motorboat Operators and Registration of Staff Officers" and "Part 12—Certification of Seamen." These parts are further subdivided into subparts which group together regulations relating to particular subjects.

The effective date of the revised regulations in subchapter B and the cancellation of the regulations in the other subchapters will depend upon the date of termination of the Second War Powers Act, as amended and extended, 50 U. S. C. 635, unless made effective at an earlier date by proper authority. In any event a notice of the effective date will be published in the Federal Register and every effort will be made to inform the persons affected of the effective date of the

new regulations and the manner in which they become effective.

The rules and regulations previously issued regarding licensing and certificating of merchant marine personnel were published by the Coast Guard in one pamphlet entitled, "Rules and Regulations for Licensing and Certificating of Merchant Marine Personnel." Since the publication of this pamphlet in February 1945, it has been found that the administration of rules and regulations pertaining to licensing and certificating of officers and seamen has been more uniform than when these requirements were published in various pamphlets containing General Rules and Regulations for Vessel Inspection. The Administrative Procedure Act, Public Law 404, Seventy-ninth Congress, 60 Stat. 238, also intended that procedural rules should be separated from the substantive rules. Because of this and since it has become necessary to revise the rules and regulations pertaining to licensing and certificating merchant marine personnel to meet peacetime operating conditions, all the existing rules and regulations, including numerous amendments made since February 1945, have been studied and where necessary they have been altered, reworded, or changed editorially so that they could all be restated in one pamphlet, and where possible only one time.

The changes in the substantive requirements reflect experiences gained during wartime operation and cover the peacetime requirements which will apply to the merchant marine. These changes are described in the following paragraphs.

An applicant requesting a raise in grade of any type of license will not be permitted to count sea service acquired prior to the issuance of the license held. An applicant for original or raise in grade of license will be required to obtain 25 percent of his qualifying experience within 3 years immediately preceding date of application. Also any person aggrieved with respect to the issuance of a license or a raise in grade of license may submit a request to the District Commander to review the ruling of the Officer in Charge, Marine Inspection, and if still dissatisfied may request a further ruling from the Commandant. The evaluation of service to be accepted in lieu of that specified in the regulations will be made by the Commandant.

In connection with deck licenses it has been determined that an ocean deck license is valid on any waters subject only to the qualifying for and obtaining the necessary pilot indorsements. The service on sail vessels has been deleted from the service accepted for a license as master on Great Lakes vessels since there are practically no sail vessels in the commercial trade. The subjects required for examinations for all deck officers licenses have been listed in the regulations.

In connection with requirements for a pilot it has been determined that 25 percent of the required experience for a pilot's license must be obtained within 3 years preceding the date of application. The Officer in Charge, Marine Inspection, will be authorized to fix the number of round trips required for a pilot's license or indorsement over a particular body of water. However, one of the round trips required must have been made within 6 months from the date of the application. The subjects for examination for license as a pilot have been listed in the regulations. There is an alternative requirement that 1 year's service as quartermaster or wheelsman while holding a second-class pilot's license will qualify an applicant for first-class pilot's license.

The requirements for a third mate on ocean and coastwise vessels have been changed to include 6 months' service as able seaman.

In addition to the service presently required by statute for able seaman (high seas, inland waters, and Great Lakes), the following service will be acceptable for certification as able seaman "any waters—unlimited": (1) up to one year of the required 3 years' service may have been spent in completing a course of able seaman training in a school approved by the Commandant; and (2) satisfactory completion of 18 months' training in a seagoing training ship approved by the Commandant. The following has been determined to be acceptable for certification as able seaman "any waters—12 months": satisfactory completion of a course at a U. S. Maritime Service Training Station of at least 9 months, 6 months of which shall have been served aboard a seagoing training vessel.

All the applicants for original engineers' licenses will be required in the future to distinguish the colors red, blue, green, and yellow. This will not bar applicants who have qualifying experience which dates prior to the effective date of the new regulations. The length of service required to qualify an applicant for an original or raise in grade of all types of engineers' licenses was not changed except that school ship and technical school graduates were made eligible for original licenses as third assistant engineer only.

The regulations were expanded to permit the holder of a steam license to qualify for a motor license and vice versa upon showing of specified types of service. The limitations on both steam and motor engineers' licenses in the future will be for horsepower only and no restrictions as to "waters" will be used. In the case of renewal of engineers' licenses now limited as to waters, provision has been made for changing such restrictions to horsepower upon renewal of the engineers' licenses if the holders so desire and request the change. In the cases where the applicants for engineers' licenses show the required service has been on merchant vessels of 2,500 horsepower and above, provision has been made that no horsepower limitations will be placed on the licenses.

YACHTING AND MOTORBOAT PANEL

A panel of advisers to the Merchant Marine Council on matters concerning motorboats and yachts has been established by the Commandant. The Merchant Marine Council was established a few years ago to advise and assist the Commandant in connection with the promulgation of rules and regulations and to provide a forum where all groups effected by such rules and regulations could present their views on such matters. To facilitate the work of the Council, all members of which are Coast Guard officers, panels of consultants were selected for their outstnding abilities in particular phases of the merchant marine and kindred industries.

The following list of names represent those who have expressed their willingness to serve on the panel:

Mr. Irwin Chase, The Elco Works, Bayonne, N. J.

Mr. Melvin Crook, associate editor, Yachting, New York, N. Y.

Mr. Chas. F. Chapman, editor, Motor Boating, New York, N. Y.

Mr. Ira Hand, National Association of Engine & Boat Manufacturers, Inc., New York, N. Y.

Mr. Phelps Ingersoll, president, Wilcox, Crittenden & Co., Inc., Middletown, Conn.

Mr. A. E. Luders, president, Luders Marine Construction Co., Stamford, Conn.

Mr. A. W. MacKerer, Chris-Craft Corp., Algonac, Mich.

Mr. George Mikkelsen, vice president, Oluf Mikkelsen Co., New York, N. Y.

Mr. John W. Mulford, president, Gray Marine Motor Co., Detroit, Mich.

Mr. A. J. Smith, Marine Office of America, New York, N. Y.

Mr. W. E. Willis, president, The E. J. Willis Co., New York, N. Y.

Capt. C. A. Anderson, U. S. C. G., chief, Reserve and Auxiliary Division, Coast Guard Headquarters.

FOG GENERATING EQUIPMENT FOR FIRE FIGHTING ON BOARD SHIP

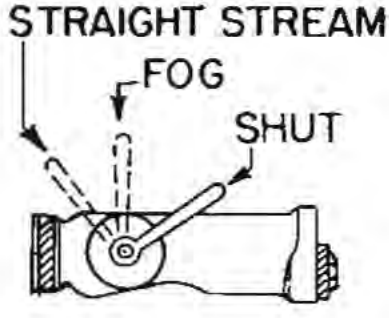
During the war the technique of fire extinguishment by the use of fog was developed to a very high degree in fighting fires on board combatant vessels. Damage control and fire-fighting training schools operated by the Navy and the Coast Guard taught this method of fire extinguishment. Some officers and men now attached to merchant vessels have probably had first-hand experience in the use of fog. In the fire-fighting training schools it was found that a little practice and experience soon taught the men handling the equipment to be confident in fighting a fire. There are many advantages in the use of fog over a solid stream of water. Protection to the men handling the hose, rapid reduction in temperature, exclusion of oxygen from the material involved in the fire, circulation of fog over a wide area of the space in which the fire is located, and conservation of machinery, fittings, furnishings, or cargo, due to the small amount of water necessary for extinguishment, are some of the advantages. A description of the equipment and suggestions as to its use follows:

All-Purpose Nozzle

The all purpose nozzle (fig. I) is the basic fitting used for fog generating equipment.

Three operations are controlled by the single valve of this nozzle. With the valve lever in the forward position the water stream is "shut off." In the halfway position water is delivered through the "fog" tip (fig. II), in the rear position water is delivered through the "solid stream" opening (fig. III).

There are two orifices built into the all-purpose nozzle. The solid stream orifice is a clear bore. The fog orifice is machined to form a bayonet joint and is fitted with a movable latch for purpose of "locking in" the high-velocity fog tip or the low-velocity fog applicator. By removing the high-velocity fog tip, as illustrated in (fig. IV) a low-velocity fog applicator may be attached to the nozzle (fig. V).



All Purpose Nozzle

FIGURE I.

Fog is generated by these tips from the action of the water stream passing through a number of small outlets drilled at converging angles in the head of the tips and so arranged as to cause the streams to impinge on one another; breaking them down into small particles. The velocity and the cone area formed by the small particles of water called "fog" is determined by the size, design and arrangement of the small outlets in the fog tips rather than the pressure of the water stream at the nozzle. For both the high-velocity fog tip and the low-velocity applicator and tip, the water pressure at the nozzle should be maintained as close to 100 pounds as possible, although both types operate acceptably down to 60-pounds water pressure. The all-purpose nozzle is available in two Navy approved sizes; for 1½-inch hose and 2½-inch hose. Two nonapproved sizes; ¾ and 1 inch are also manufactured.

Operating with the high velocity fog tip and a water pressure of approximately 100 pounds at the nozzle, the fog stream is projected a distance of over 20 feet with the 1½-inch nozzle and over 35 feet with the 2½-inch nozzle.

Self-Cleaning Strainer

One of the problems in connection with the use of fog nozzles on board merchant ships is prevention of clogging of the small size outlets in the fog tips by foreign matter drawn into the water stream by the ships fire pumps. To control this condition a self-cleaning strainer was developed as illustrated in (fig. VI). 1½-inch diameter and 2½-inch diameter types of strainers are available.

This strainer may be attached directly to the fire plug or to a section of hose as conditions warrant. The strainer screen is a hollow perforated cylinder having 95 holes of 0.077 inch diameter per square inch of screen. By reference to (fig. VI) it will be noted that the strainer screen is set at an angle to the direct flow of the water on its way to the fog nozzle. Water entering the strainer passes through the screen, thus trapping foreign matter, marine growth, etc., in the strainer. To clean this deposit of foreign matter from the strainer all that is necessary is to set the clearing valve to the open position. This requires hardly a perceptible interruption during the use of the fog nozzle. Care must be exercised to open the clean-out valve quickly but to return it to the closed position slowly to avoid rupturing the strainer screen. High-velocity fog tips are not provided with built-in strainer screens. Low-velocity fog tips do have strainers inserted in the tips. Regardless of the fact that low-velocity fog tips have strainers, it is recommended that the self-cleaning strainers always be attached to the line. Two methods of attachment are illustrated in (fig. VII).

Applicators With Low-Velocity Fog Heads

If a low-velocity fog is desired the high-velocity tip is removed from the all-purpose nozzle and an applicator having a low-velocity tip is snapped into place in the fog outlet of the nozzle (figs. IV and V). As previously explained, a bayonet joint and latch holds the applicator in place in the nozzle. Three sizes of applicators are shown in (fig. VIII), and their relationship to use in either a 2½ or a 1½ inch all-purpose nozzle is indicated.

Figure IX illustrates a 4-foot applicator in place in the all-purpose nozzle.

Figure X illustrates a 10-foot applicator in place in the all-purpose nozzle.

The outlets in the low-velocity fog tips are smaller than those in the high-velocity nozzle tip and so designed and placed that the water stream is broken down into finer particles. The water fog developed by these tips does not have force for more than a few feet from the fog head. In consequence of this fact and for advantage in reach and precision the low-velocity head (or tip) is never used on the nozzle directly but always with an applicator as shown in figures IX and X. Without the extended reach provided with the applicator, the fire fighters would not only be enveloped in a fog of their own making and therefore impeded in work, but would have to approach to within a few feet of the fire. The applicator extension enables them to reach over or around obstructions, to insert the fog head through a hatch, a door, a portlight, or hole cut in a deck or bulkhead and therefore more

nearly place on the fire a cooling smothering blanket of fog. When working up to a fire with either low-velocity or high-velocity fog the operator must be careful to drive all fire ahead of him, to cool thoroughly as he moves forward to insure there will be no sudden flash around enveloping him from the rear. The most important consideration in this respect when fighting a fire in a compartment is to be certain that ventilation openings exist forward of him to prevent pressure being built up ahead. With such an arrangement smoke, gases, and steam from the fog may be driven ahead and out of the compartment.

Characteristics of Solid Stream, High-Velocity Fog, Low-Velocity Fog

The all-purpose nozzle is so constructed as to furnish a solid stream of water; or high-velocity fog; or low-velocity fog; the latter by insertion of an applicator fitted with low-velocity fog tip.

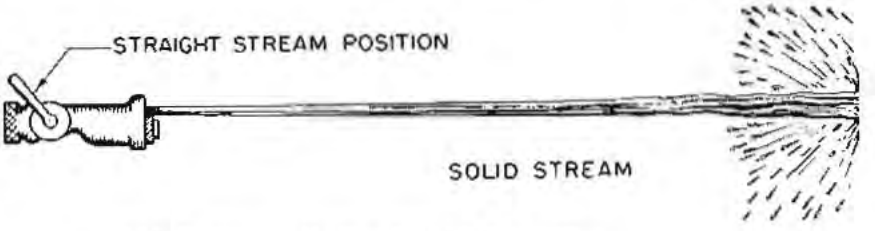
When a solid stream of water is used on a fire the stream at the end of its trajectory breaks into large drops of water which reduce the temperature of the surrounding air and the material involved in the fire. If the distance from the nozzle to the end of the trajectory of the stream is too short and the solid stream hits a bulkhead or deck the water is deflected and runs off, its over-all effect is greatly lessened and the efficiency of the water correspondingly reduced. With fog equipment the efficiency of the water cone is set up in the immediate vicinity of the tip and may be directed at will by the hose crew.

Water when broken down into fog has many advantages over the solid stream. If a drop of water is broken into droplets of one thirty-second of the diameter of the original drop, the total exposed surface area of the water is increased 25 times. If an original drop is broken into droplets of one-thousandth the diameter of the original drop, the total exposed surface area is increased 625 times. It is this exposed surface area that absorbs the heat of the fire and some of the gases of combustion.

The finely divided water formed by the fog tip creates a surface area capable of absorbing a tremendous amount of heat. It will be effective over a larger area due to its ability to move in the air currents present in the fire. Fog will remain suspended in the air, thus accelerating heat absorption, cooling the fire as well as the area surrounding the fire. It produces little disturbance when applied over any surface and this is very important, especially in fires of inflammable or combustible liquids or in fires where solid streams would produce a considerable breakdown of material and create smoldering embers capable of transmitting fire to additional areas. It protects fire-fighting personnel, and with proper ventilation it materially helps in clearing out smoke by driving it ahead of the fire-fighting crew. Fog nozzles require less personnel to control than do solid-stream nozzles.

High-Velocity Fog

FIGURE II.

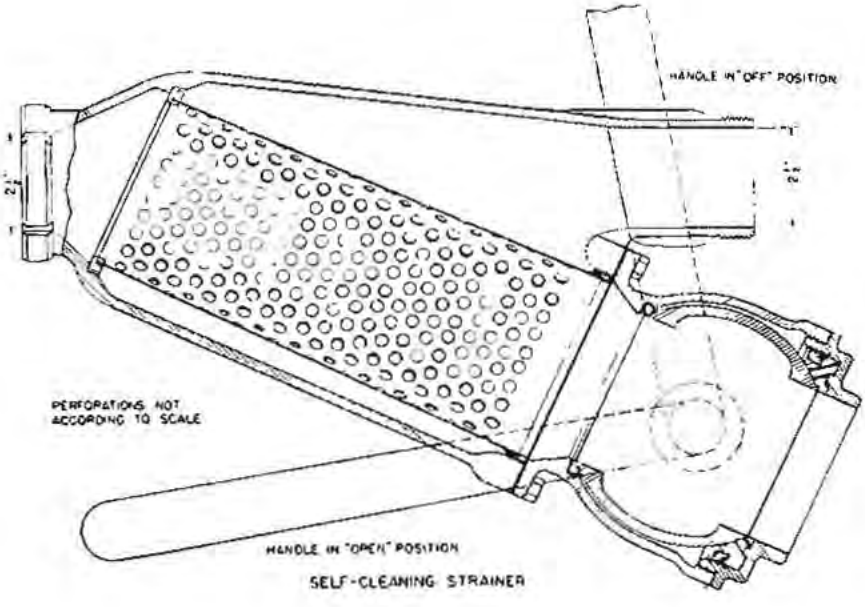


All Purpose Using Solid Stream

FIGURE III.

FIGURE IV.

FIGURE V.



Self-Cleaning Strainer

FIGURE VI.

On board ship any appreciable amount of free water is likely to raise a stability problem; hence fog is especially desired over a solid stream because it is more effective, uses less water, and the water is used more efficiently and with much greater and speedier extinguishing effect than can be secured by the same quantity of water when applied as a solid stream. It has been found that with proper ventilation and current convection much of the fog is turned to steam and carried off in the form of vapor.

Fog does not have the "reach" of a solid stream. High-velocity fog from a 2½-inch nozzle tip at 100-pounds nozzle pressure will cover an area 10 to 12 feet in diameter at 15 feet from the nozzle. This narrows down to 6 to 8 feet diameter at 25 feet from the nozzle. The maximum effective forward area is about 35 feet from the nozzle, although at this distance the cone has dissolved into a drifting fog. The solid stream from the 2½ inch all-purpose nozzle at 100-pounds nozzle pressure and the nozzle held level will travel 75 feet. The low-velocity head on a 12-foot applicator fitted to a 2½-inch all-purpose nozzle with 100-pounds nozzle pressure will, when held 8 feet above a surface, generate a fog cone sufficient to cover an area 22 feet in diameter.

A nozzle crew will stand some distance from a fire and direct a solid stream into the fire but when using either a high- or low-velocity fog nozzle they are able to protect themselves from the heat and approach close to the fire, direct the fog at the base of the fire, and effect quick extinguishment.

Fog has been used very successfully to extinguish oil fires in confined spaces as well as in the open. This was demonstrated in a series of experiments in extinguishing machinery space fires, conducted in a Liberty ship by the Coast Guard at its fire-fighting training school at Fort McHenry, Baltimore, Md.; 5,000-gallons of bunker fuel oil were released in the bilge of the machinery space, ignited, and allowed to burn freely for 30 to 40 minutes. Complete extinguishment was repeatedly obtained by various adjustments of venting means to control the air flow into and the exhaust of hot gases from the machinery spaces, plus the introduction of fog from the upper level at one point only. As is known, the engine and boiler room spaces on this type ship consist of one compartment only. The boilers had been removed from the ship but the engine, less some of its auxiliaries, remained in place. The most significant development in the experiments was the control of ventilation. The most successful condition was arrived at by blanking off the ship's fun-

nel at a point in the machinery space so as to approximate the condition that would exist if the boilers remained in the ship. A grill door leading to the engineer's storeroom was blanked off and the access doors at the 'tween deck level were closed. Ventilators were closed off at the cowls; using canvas covers. The engine room skylight was closed off by draping with a tarpaulin and lashing it in place with one corner left free, and it was at this point that an applicator with a fog tip was inserted. The vent space between the funnel and the fiddley, directly below the umbrella, was left open to allow the escape of gases evolved in the fire and steam formed by the contact of fog with the fire. The fog tip at the end of the applicator which in this instance was a straight pipe applicator, was of 2½-inch size water-supplied through a 1½-inch hose line. This fog tip was projected down through a corner of the engine room skylight to clear the deck head and prevent the fog cone from being broken up by structural obstruction within the machinery space. The series of experimental fires were extinguished with the use of an average of 7,640 gallons of water per fire. A considerable amount of this water was exhausted through the vent space around the funnel in the form of steam. The relatively small amount of water remaining in the machinery space would have little or no effect on the stability of a vessel.

Many ship fires have assumed large proportions because in their early stages men have been unable to approach close enough to hatches or compartments because of the extreme heat. Working behind fog cones fire fighters are protected and by cooling as they move forward, can very often in a relatively short space of time get close enough to the base of the fire to make their efforts count effectively.

Fire mains and fireplugs on board merchant ships will vary as to size. Some ships will have a 2½-inch diameter system throughout; others will have 2½-inch diameter system above the weather deck with a 1½-inch diameter below decks. It has been found most advantageous to use 1½-inch hose below decks and in living quarters above the weather deck. Anyone experienced in handling 2½-inch fire hose will appreciate how much easier it is to lay and handle a 1½-inch hose. In taking a 1½-inch hose through hatches or up or down companionways, ladders, or passageways, it is much easier to thread the hose around obstructions and to carry the weight of such diameter hose. Where the ship is fitted with 2½-inch diameter fireplugs above deck or below decks, and it is desired to use 1½-inch hose with an all-purpose nozzle, with or without an adapter, a Y gate may be fitted as shown in figure VII. With experience many combinations will suggest themselves. Remember to always include a strainer in the hookup. When ordering fog equipment always specify the type thread connections required to fit the ship's equipment.

Fog-generating equipment is not required by regulations to be fitted on

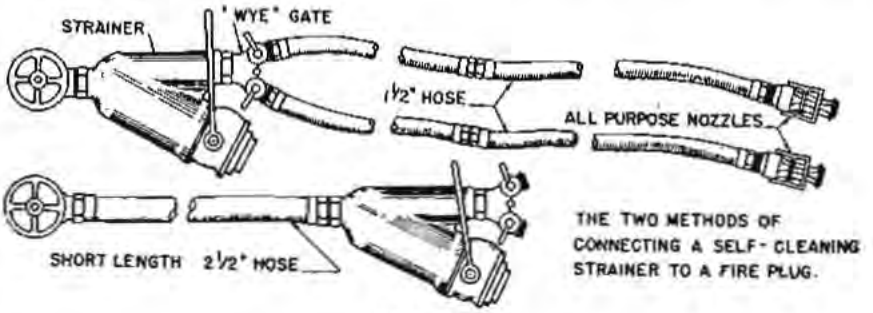
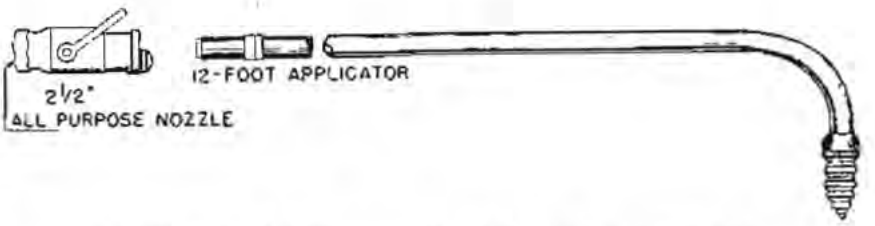
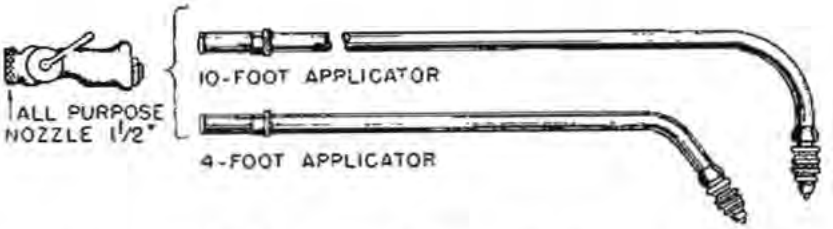


FIGURE VII.

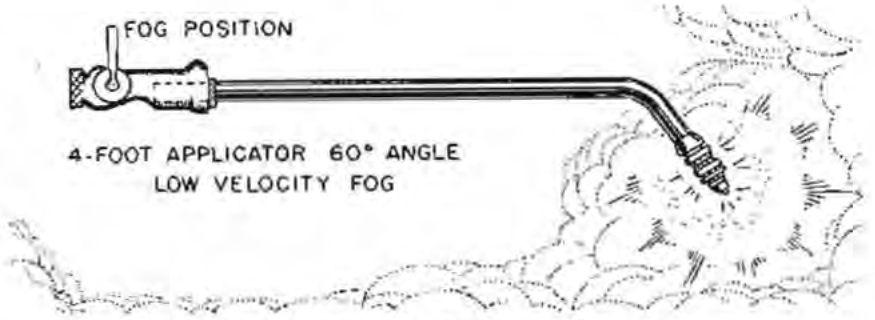


2-1/2 inch All Purpose Nozzle with Applicator



1-1/2 inch All Purpose Nozzle with Applicators

FIGURE VIII.



Low-Velocity Fog with 60° Applicator

FIGURE IX.

board merchant vessels. Spray nozzles are required in the engine room of certain types of vessels burning oil for fuel. These spray nozzles are not to be confused with fog-generating nozzles as the breakdown of water by spray nozzles is not comparable to the fine division accomplished by fog nozzles. Although not required by regulations, fog-generating equipment may be added to existing fire equipment on board ships at the option of the operator.

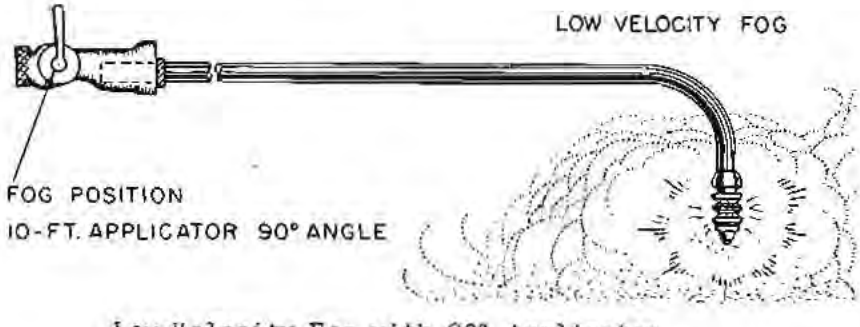
An analysis of fires on board ships for one of the recent years shows that of a total of 737 fires reported, 135 of these fires were in passenger and crew accommodations. It is believed that the use of fog would be very advantageous in fighting such fires and the water damage accruing would be held to the minimum.

One of the fire-fighting training schools regularly responded to actual fires in and around the port; serving as an adjunct to the city and port fire department. In one instance at a shore fire involving a sulfur processing plant, fog was successfully used to control and extinguish a stubborn fire in bulk sulfur. The city fire department using solid streams found it was scattering molten sulfur and starting new fires when this substance came in contact with other sulfur or other combustible material. Using one of their small fire boats the training school crew worked the boat up as close to the fire as possible; then went ashore and entered the building with fog lines. The personnel was equipped with respiratory protection and succeeded in extinguishing the fire. It was found that the low-velocity fog, cooling as it went and descending upon the burning sulfur, smothered the fire without scattering it.

Fog has been used to cool bulkheads and decks adjacent to the fire area with great success. In this operation it is important to understand that if such cooling is being done in confined spaces the application of fog will generate steam, and if the heat of the bulkhead or deck is excessive, steam will be generated in such volume that fire-fighting parties may be unable to remain in the confined space. Proper ventilation and subsequent convection may eliminate this hazard.

All the possible uses of fog have not yet been explored but its efficiency over solid stream has been proven; especially under actual battle conditions on board combatant vessels; including carriers having considerable stores of gasoline on board. Land fire-fighting companies are daily developing further application of this remarkable fire-fighting medium. Its use on board vessels offers many advantages. Apart from fire fighting it is visualized it could be used in the absorption of many gases formed by leaking cargo. It would be ideal for absorbing the fumes of anhydrous ammonia that might be caused by the rupture or leaking of containers of such substances or of refrigerating systems.

It has been found by actual tests that with a little experience a man behind a cone of fog will approach a fire with more confidence, a greater degree of safety, and will extinguish a fire more efficiently than if he were protected only by a solid stream. A recent experiment involving the working of cotton cargo out of a hold following a fire in the cargo demonstrated the effectiveness of fog in assisting this operation. It developed that one of the bales of cotton carried considerable fire in the internals of the bale, forming a "hot spot." As the removal of bales progressed and the crew approached this one bale, a wetting agent was introduced into the fog line through use of a proportioner and fog was applied to the bale; effecting sufficient cooling to permit removal of the bale to shore where extinguishment was completed. It was also found that discriminate use of fog in the holds cooled the area and added materially to the comfort of the longshoremen working the cargo.



Low-Velocity Fog with 90° Applicator

FIGURE X.

INTERNATIONAL ICE PATROL

The International Ice Patrol and Ice Observation Service was resumed on February 17, 1947 and will run well through June 1947. The patrol will be conducted by the Coast Guard as in the past. The patrol for the 1947 season will consist of two Coast Guard cutters, the *Mendota* and the *Mojave*, and two heavy land planes. Their base of operations will be Argentia, Newfoundland.

The force assigned will operate to carry out the provisions of the International Convention for the safety of life at sea, London, 1929, relating to ice observation, ice patrol, and derelict destruction. The mission to be performed will consist of: (*a*) Locating 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*) render assistance as required; (*e*) collect oceanographic data both surface and subsurface as practicable; (*f*) make such observations as are practical relative to the continuing study in ice detection; and (*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.

The patrol vessels will determine the southeastern, southern, and southwestern limits of the iceberg 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 (G. C. T.) 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 (G. C. T.). 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 sec-

onds 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-2), and 8100 kilocycles (A-1). Transmissions relating to special bulletins will be preceded by the international safety signal TTT.

Patrol vessels, radio call sign NIDK, will maintain a continuous listening watch on 500 and 8280 kilocycles for distress signals. A continuous watch will also be maintained on 468 kilocycles for general communication, such as ice and water-temperature reports and requests for additional information or portions of Ice Broadcasts which may have been missed. There is no charge for this service.

Many men of the merchant marine are called upon to navigate the ice zones of the North Atlantic during the season when icebergs are usually encountered. A pamphlet has been prepared by the Coast Guard and is designed to give them the facts about these dangers and what steps the International Ice Patrol is taking to lessen the ice menace to navigation.

Any person interested may obtain free of charge, a copy of the pamphlet on International Ice Patrol upon request to the Commandant, U. S. Coast Guard, Washington 25, D. C., attention Public Information Division.

NUMBERING OF UNDOCUMENTED VESSELS

The table below gives the cumulative total of numbered but undocumented vessels in each Coast Guard district by customs ports for the month of December 1946. Generally speaking, undocumented vessels are those of less than 5 net tons engaged in trade and those of less than 16 gross tons used exclusively as pleasure vessels. These vessels are required to be numbered under the provisions of the act of June 7, 1918, as amended (46 U. S. C. 288).

Coast Guard district	Customs port		Total
1 (Boston)	(4) Boston	13,078	
	(1) Portland, Maine	9,708	
	(2) St. Albans	2,655	
	(5) Providence	3,613	
			29,054
2 (St. Louis)	(45) St. Louis	19,791	
	(12) Pittsburgh	4,059	
	(34) Pembina	123	
	(35) Minneapolis	8,828	
	(40) Indianapolis	5,225	
	(42) Louisville	3,854	
	(43) Memphis (part)	9,267	
	(44) Vacant (Des Moines)	116	
	(46) Omaha (part)	806	
			52,079
3 (New York)	(10) New York	41,085	
	(6) Bridgeport	7,665	
			48,750
4 (Philadelphia)	(11) Philadelphia	19,369	
			19,369
5 (Norfolk)	(14) Norfolk	14,080	
	(13) Baltimore	20,110	
	(15) Wilmington, N. C.	7,529	
			41,719
7 (Miami)	(16) Charleston	1,627	
	(17) Savannah	3,787	
	(18) Tampa (part)	18,319	
			23,733
8 (New Orleans)	(20) New Orleans	16,957	
	(18) Tampa (part)	865	
	(19) Mobile	6,475	
	(21) Port Arthur	3,654	
	(22) Galveston	9,047	
	(23) Laredo	1,714	
	(24) El Paso	0	
	(43) Memphis (part)	76	
			38,804
9 (Cleveland)	(41) Cleveland	14,160	
	(7) Ogdensburg	6,576	
	(8) Rochester	8,514	
	(9) Buffalo	8,422	
	(36) Duluth	3,980	
	(37) Milwaukee	12,544	
	(38) Detroit	27,248	
	(39) Chicago	7,509	
			88,953
10 (San Juan)	(49) San Juan	274	
	(51) St. Thomas	78	
			352
11 (Long Beach)	(27) Los Angeles	6,841	
	(25) San Diego	1,441	
	(26) Nogales	53	
			8,335
12 (San Francisco)	(28) San Francisco	18,687	
	(47) Denver		
			18,687
13 (Seattle)	(30) Seattle	30,275	
	(29) Portland, Oreg.	9,342	
	(33) Great Falls	963	
	(46) Omaha (part)	2	
			40,582
14 (Honolulu)	(32) Honolulu	3,324	
			3,324
17 (Ketchikan)	(31) Juneau	6,038	
			6,038
Grand total			419,779

MERCHANT VESSEL CASUALTY STATISTICS

The compilation of merchant vessel casualty statistics for the fiscal year 1946 has been prepared and is set forth on page 64 in the Appendix. The figures in this compilation are based on merchant vessel casualties which were investigated by the Coast Guard during the period from July 1, 1945, to June 30, 1946.

For the fiscal year 1946 there was a total of 5,006 marine casualties involving 6,487 vessels. It is interesting to note that there were 316,986 passengers on board the vessels involved in the casualties and only 29 passengers lost their lives as a result of these accidents. A total number of 213,117 merchant seamen were on board vessels involved in these accidents and 125 lost their lives. The deaths not involving a casualty to merchant vessels show that 97 passengers, 414 crew members, and 9 stevedores lost their lives. In addition, injuries to personnel not involving a casualty to the vessel showed that 1,824 persons were incapacitated for more than 72 hours and approximately 16,088 man days of work were lost.

Besides the casualties listed in the table, 27 inspected vessels with a combined tonnage of 187,768 gross tons, were involved in war action casualties. Of these casualties 3 were the result of direct enemy action, one by submarine and 2 by air attack, and 24 vessels were mined. The attacks resulted in the loss of 7 vessels with a total tonnage of 52,471 gross tons and with the loss of 7 persons among the 1,476 persons carried on all the vessels.

During the first 2 months of the period covered in the statistics, the war with Japan was still in progress and the item "Collision With Service Vessels" was a result mainly of operations in the western Pacific, such as fueling at sea and in open roadsteads.

These are collisions between merchant vessels and public vessels and do not cover casualties between public vessels only.

The data from which these statistics were compiled were taken from information submitted by masters of merchant vessels on Form CG 2692. The Coast Guard is appreciative of the cooperation of the merchant vessel personnel responsible for reporting accidents and casualties on Coast Guard Form 2692 and for the completeness with which this material was furnished.

A study of statistics of merchant marine casualties and accidents stresses the importance that can be drawn from "Lessons from Casualties." It is hoped to make similar compilations of this information a continuing project to be published annually. It is regretted that it cannot be published earlier as it requires considerable time after the end of the fiscal year before all casualties and accidents have been investigated.

Marine Information Broadcasts

A schedule of marine information broadcasts has been adopted by the Coast Guard and appears in table form below for ready reference. This schedule of broadcasts includes the regular broadcasts of weather forecasts, notices to mariners, and hydrographic information, as well as emergency broadcasts regarding storm warnings, advisories, and urgent marine information, but does not include the Great Lakes and the inland waters. The marine information concerns the Atlantic coast, Gulf coast, and Pacific coast, Territory of Alaska, and the Territory of Hawaii.

The stations designated to broadcast storm warnings, advisories, and urgent marine information by radiotelegraph will do so upon receipt of the information. This information will be repeated three times within the next period of 6 hours, on either the even or the odd hour, depending upon the station, unless the information is superseded or canceled. Any emergency information which superseded a previous broadcast will be handled in the same manner as the original information and will extend the emergency broadcast an additional 6 hours.

All radiotelegraph broadcasts will be made on the stations' working frequencies after preliminary announcements are made on 500 kilocycles with subsequent shifts to indicate station working frequencies. All radiotelephone broadcasts will be preceded by appropriate announcements on 2670 kilocycles with the regular broadcasts to follow on 2698 kilocycles. All radio telephone broadcasts will be made once through at a good writing speed.

This information replaces that published on page 216 in the December 1946 PROCEEDINGS OF THE MERCHANT MARINE COUNCIL.

Bell System Coast Harbor Station

Station	Call letters	Frequency (kc.)	Present G. C. T. schedule
Boston, Mass	WOU	2506	0420-1620
New York, N. Y	WOX	2522	0330-1530
Wilmington, Del	WEH	2558	0430-1630
Norfolk, Va	WGB	2538	0400-1600
Charleston, S. C	WJO	2566	0400-1600
Miami, Fla	WDR	2514	0400-1600
Tampa, Fla	WFA	2550	0400-1600
New Orleans, La	WAK	2598	0400-1600
Galveston, Tex	KQP	2530	0100-1830
San Pedro, Calif	KOU	2566	0400-1600
San Francisco, Calif	KLH	2506	0430-1630
Eureka, Calif	KOE	2506	0500-1700
Portland, Oreg	KQX	2598	0210-1940
Seattle, Wash	KOW	2522	0200-1930
Astoria, Oreg	KFX	2598	0200-1930

STATIONS BROADCASTING MARINE INFORMATION

Station and call letters	Time (G. C. T.)	Frequency (kc.)	Emission	Nature of broadcast
Rockland, Maine (NOE)	1730	2698	A-3	Regular broadcasts.
	Upon receipt and on even hour intervals.	2698	A-3	Emergency broadcasts.
Boston, Mass. (NMF)	0348 and 1548	2698	A-3	Regular broadcasts.
	0400 and 1600	425	A-1	Do.
	Upon receipt and on even hour intervals.	425	A-1	Emergency broadcasts.
	Upon receipt and on odd hour intervals.	2698	A-3	Do.
New York, N. Y. (NMY-2)	0400 and 1600	474	A-2	Regular broadcasts.
	Upon receipt and on even hour intervals.	474	A-2	Emergency broadcasts.
New York, N. Y. (NMY)	0400 and 1600	2698	A-3	Regular broadcasts.
	Upon receipt and on odd hour intervals.	2698	A-3	Emergency broadcasts.
Philadelphia, Pa. (NMK)	0500 and 1700	425	A-1	Regular Broadcasts.
	0518 and 1718	2698	A-3	Do.
	Upon receipt and on odd hour intervals.	425	A-1	Emergency Broadcasts.
	Upon receipt and on even hour intervals.	2698	A-3	Do.
Baltimore, Md. (NMN-7)	1748	2698	A-3	Regular broadcasts.
	Upon receipt and on odd hour intervals.	2698	A-3	Emergency broadcasts.
Norfolk, Va. (NMN)	0430 and 1630	2698	A-3	Regular broadcasts.
	0400 and 1600	410	A-1	Do.
	Upon receipt and on even hour intervals.	410	A-1	Emergency broadcasts.
	Do	2698	A-3	Do.
Fort Macon, N. C. (NMN-37).	1718	2698	A-3	Regular broadcasts.
	Upon receipt and on odd hour intervals.	2698	A-3	Emergency broadcasts.
Charleston, S. C. (NMB)	0548 and 1748	2698	A-3	Regular broadcasts.
	Upon receipt and on even hour intervals.	2698	A-3	Emergency broadcasts.
Mayport, Fla. (NMV)	0500 and 1700	2698	A-3	Regular broadcasts.
	Upon receipt and on odd hour intervals.	2698	A-3	Emergency broadcasts.
	Do	464	A-1	Do.
Miami, Fla. (NMA)	0400 and 1600	482	A-2	Regular broadcasts.
	Upon receipt and on even hour intervals.	482	A-2	Emergency broadcasts.
Key West, Fla. (NOK)	0418 and 1618	2698	A-3	Regular broadcasts.
	Upon receipt and on even hour intervals.	2698	A-3	Emergency broadcasts.
St. Petersburg, Fla. (NOF).	0518 and 1718	2698	A-3	Regular broadcasts.
	Upon receipt and on even hour intervals.	2698	A-3	Emergency broadcasts.
Mobile, Ala. (NOQ)	0530 and 1730	2698	A-3	Regular broadcasts.
	Upon receipt and on odd hour intervals.	464	A-1	Emergency broadcasts.
	Upon receipt and on even hour intervals.	2698	A-3	Do.
New Orleans, La. (NMG)	0418 and 1618	448	A-2	Regular broadcasts.
	Upon receipt and on even hour intervals.	448	A-2	Emergency broadcasts.
Galveston, Tex. (NOY)	0400 and 1600	2698	A-3	Regular broadcasts.
	Upon receipt and on even hour intervals.	425	A-1	Emergency broadcasts.
	Upon receipt and on odd hour intervals.	2698	A-3	Do.

STATIONS BROADCASTING MARINE INFORMATION—Con.

Station and call letters	Time (G. C. T.)	Frequency (kc.)	Emission	Nature of broadcast
San Juan, P. R. (NMR)	0300 and 1500	2698	A-3	Regular broadcasts.
	0330 and 1530	127	A-1	Do.
	Upon receipt and on even hour intervals.	127	A-1	Emergency broadcasts.
	Upon receipt and on odd hour intervals.	2698	A-3	Do.
Long Beach, Calif. (NMQ)	0400 and 1600	425	A-1	Regular broadcasts.
	0400 and 1600	2698	A-3	Do.
	Upon receipt and on odd hour intervals.	2698	A-3	Emergency broadcasts.
	Upon receipt and on even hour intervals.	425	A-1	Do.
Monterey, Calif. (NOJ)	0448 and 1648	2698	A-3	Regular broadcasts.
	Upon receipt and on even hour intervals.	2698	A-3	Emergency broadcasts.
San Francisco, Calif. (NMC-2).	0400 and 1600	418	A-2	Regular broadcasts.
	Upon receipt and on even hour intervals.	418	A-2	Emergency broadcasts.
San Francisco, Calif. (NMC).	0418 and 1618	2698	A-3	Regular broadcasts.
	Upon receipt and on odd hour intervals.	2698	A-3	Emergency broadcasts.
Seattle, Wash. (NMW)	0430 and 1630	425	A-1	Regular broadcasts.
	0500 and 1700	2698	A-3	Do.
	Upon receipt and on even hour intervals.	425	A-1	Emergency broadcasts.
	Do	2698	A-3	Do.
Ketchikan, Alaska (NMJ)	0530 and 1730	410	A-1	Regular broadcasts.
	0530 and 1730	2698	A-3	Do.
	Upon receipt and on even hour intervals.	410	A-1	Emergency broadcasts.
	Do	2698	A-3	Do.
Honolulu, T. H. (NMO)	0930 and 2130	2698	A-3	Regular broadcasts.
	Upon receipt and on local odd hour intervals.	2698	A-3	Emergency broadcasts.
	Do	425	A-1	Do.

THE "SANTA BARBARA"

In June of 1946, the new S. S. *Santa Barbara* made her maiden voyage from New York toward west coast ports of South America. She is one of the newer ships of the Grace Line and is built on a modified C-2 hull. She was built in 1946 at Wilmington, N. C., and is 459 feet long displacing 8,327 tons, and is capable of carrying 9,000 tons of cargo in over 500,000 cubic feet of space, one-fifth of which is devoted to refrigerated goods. Her yacht-like appointments include such modern travel comforts as: Complete air-conditioning throughout passenger quarters, full-view windows instead of portholes, swimming pool with beach deck, comfortable beds convertible to lounges by day and automatic telephones in each of her 20 staterooms which can accommodate 52 passengers. As required by Coast Guard regulations for new ship construction, all compartments in passenger spaces are equipped with fire retardent material. The very latest types of cargo gear, such as topping-lift winches for each boom, have been installed to insure swift and efficient freight handling.

Power to the single screw is provided by steam turbine rated at 6,000 horsepower.

LESSONS FROM CASUALTIES

REMEMBER YOUR RESPONSIBILITY

The Ship's Aground!! The Ship's Aground!! This is a call no navigator or person on board a ship wants to hear. Yet, a study of a recent grounding leads to no other conclusion than that the officers and seamen navigating the ship lacked a sense of responsibility for the ship, its crew, and the cargo, which caused the accident. Other groundings have been reported in these "Lessons from Casualties" and from them were drawn pointers for the guidance of those who might find themselves in similar situations. In the current case there is such a clear-cut exhibition of irresponsibility that the only lesson that stands out is that of arousing in the mind of every person in charge of a watch of the responsibility which he, as one in a responsible position owes to his ship, shipmates, and to the passengers and cargo, the carriage of which go to make up the wages he draws.

To present the lessons which may be drawn from the errors made by our less-fortunate fellows in the spirit of judicious candor is often not an easy task in view of the perhaps natural tendency toward invective harshness on the critic's part. However, in the case now considered, the circumstances leading to the recent grounding of a certain vessel leaves little doubt that something was radically amiss with the navigational procedure on board.

In the instance in question, the ship set forth apparently seaworthy in all respects, equipped with a fathometer, gyrocompass, and the proper charts for the voyage. The master and his three mates were duly licensed and the vessel was manned in accordance with the requirements of her class. The value of the ship and cargo was estimated at some $2,200,000.

From a position fixed by bearings of navigational aids at 2 a. m., the master laid his track to take him roughly midway between a shoal and a point of land on which was located a light with a visibility of 16 miles. The course should have left the light 6 miles on the starboard beam and the shoal 8½ miles on the port beam.

The master appears to have given verbal orders to the 2nd Mate, upon leaving the deck at about 2:30 a. m., to "watch she does not set to the northward." His second, chief, and third mates thence were successively in charge of the navigation.

The weather was fine with light wind and slight sea as the vessel proceeded eastward approximately parallel with the clear coastline to starboard which is marked by outstanding elevations of 1,000 to 1,700 feet at 1 to 2 miles from the shore, at 6

Why?

to 7 miles off, and with the open sea to port.

Testimony revealed that good visibility conditions prevailed from the time of departure until that of the stranding. The situation called for nothing more than piloting of the simplest order in taking the ship along the land at 6 to 7 miles off, using any prominent objects from which to check the course by the time-honored "four-point bearing," while further check by fathometer sounding was at all times possible.

The third mate, as noted, was given no instructions by the chief on relieving the watch at 8 a. m., beyond the course required to be steered. The obviously great distance of the lighthouse on the beam, amounting to 8 miles farther off than the course line indicated, also appears to have met with little concern by this officer, due allowance being made for the fact that the young man was making his first voyage under the authority of his license. Incidentally, it is noted that the chief mate's sea experience amounted to approximately 6 years, 3 of which were served as a licensed officer. The second mate had served 2 years under authority of his license out of a total experience at sea of 4 years.

From the investigation officer's remarks it appears that the laxity displayed by their captain bad set the pace for his mates' perfunctory watch-keeping. The master, on that account, must be considered the leading offender. Absence of specific orders in the matter of correcting the course made good, or acquainting the master with regard to the vessel's position, on the other hand, cannot be held as mitigating the fault of the officer on watch in allowing the ship to proceed blindly on a given compass course.

During the second mate's watch, as previously noted, the master retired to his quarters at about 2:30 a. m. Thereafter the check obtainable by a position line from the bearing of the last passed shore light apparently was not considered. Such a line of position, coupled with a sounding, would have determined with very little effort whether the course was being made good or otherwise. The second mate duly turned over the watch to the chief mate at 4 a. m., each of these officers apparently accepting without question the vessel's position at that hour as that by the "dead reckoning," while, if we may so express it, the light in question was "grinning at them" on the starboard quarter! At what time this light disappeared is not indicated, but it was shown that throughout the second mate's watch it was visible, and there is good reason present to believe until as late as 4:30 a. m. a bearing of that navigational aid was at all times available. Both chief and second mate offered the excuse in their respective testimonies that the ship's smokestack hindered observation of such bearing. For some reason the simple expedient of swinging the ship off her course a point or two to accomplish this purpose, did not occur to them.

That the light mentioned should have been sighted after steaming a distance of 40 miles, and that the chart provides ample warning of a prevailing northwesterly set of current as the passage described is approached, appear to have passed unnoticed by any of the officers. No soundings were taken, though the chart indicates the gradients provide sufficient warning of approach to any danger in the locality. Daylight having arrived at about 5:30 a. m., it must have been apparent to even a casual observer that the ship was much farther off the coast than the proposed course line required; yet it develops that no attempt was made to check the position with relation to the well-defined termination of the land, as marked by the point referred to, up to the time this was abeam.

It was testified that the lighthouse was on the beam bearing at 8:30 a. m. At 8:40 the ship grounded on the shoal. Thus was the target presented by a clear 14-mile expanse of navigable water, beyond which lay the open ocean, entirely missed by the ill-guided vessel.

To quote from the investigation record: "The whole affair indicates careless navigation. The master did not keep himself informed as to the condition of the vessel and did not require his officers properly to advise him. Each of the mates, in turn, did not carefully and properly navigate the vessel in that they failed to take soundings and failed to establish the vessel's position by fix on objects ashore. In relieving the watch neither the officer relieved nor the relieving officer established the vessel's position. At 8 a. m. the vessel was far to the north and the chief mate, who was responsible for the watch, though he might have done so by observation, failed to advise the third mate of the vessel's position. The third mate was sailing his first voyage on his license and stated in his testimony that he took no soundings in an effort to locate the vessel's position because he did not know how to operate the fathometer. The master's testimony indicates that he did not thoroughly check back as to courses steered and consequently even now has but a vague idea of how his ship reached the point where it grounded."

It is clear that the charge of "inattention to duty" is justified by the facts—one is tempted to rename it "heedlessness of duty," and whatever disciplinary action awarded wholly deserving. The careless attitude of the men concerned, however, would seem to have reached the point where beforehand knowledge of such possible action was no deterrent to their conduct in the circumstances. At all events, the fundamental truth of the matter is that these officers, like many others on record, whether from lack of experience, training, or moral stability, failed to realize their responsibilities for the safe conduct of the ship, lives, and cargo under their immediate charge.

The best place to know the rules and the worst place to study them is in a collision approach

"HORSE PLAY" AT WORK

Stunts may often seem funny in your imagination but when carried out have serious consequences. Many shipboard injuries are the result of occupational hazards but injuries of varying degrees often result from accidents of the "Boys will be Boys" variety.

There's the case of the able seaman who, after visiting all the high spots on Lime Street in Liverpool, came back with a friend of the evening—a horse. The A. B. insisted that his new found friend should go aboard and he tried to lead him up the gangway. The job was too much. The A. B. slipped, fell, and suffered skull contusions. The horse when questioned as to his part in the accident denied having had anything to drink and, being quite a character himself, opined that it was fortunate the ship had not been in India saying "Suppose he had tried to get an elephant up there instead of me." After it was all over, the horse returned ashore and the A. B. spent a long time in a hospital thinking about his experience.

In another case a crewman was reported as standing alongside the No. 5 hatch when someone called his attention to some girls on the beach. In order to get a better view he climbed to the top of the hatch, slipped, fell, and broke his ankle. It is no fun to use crutches even temporarily and such accidents can and do "ground" the best seamen.

Humorous or not, depending on your viewpoint, these accidents did happen on American ships. The lesson to be gained is that unsafe acts performed in jest or seriousness, on watch or off, eventually lead to unfortunate results.

FOLLOW DIRECTIONS FAITHFULLY

Manufacturers of commercial products invariably find that many complaints against their merchandise have no basis; that the user has not read the directions on the can, but has blithely gone about using it as he supposed it should be used with disappointing and, sometimes, calamitous results.

Lye, which is used in the stewards' departments in quantities, when not carefully handled and diluted according to directions can cause painful burns. The following two instances demonstrate the results of the careless and injudicious use of lye: A messman was cleaning a steam table with a much too powerful solution of lye; he suffered burns to his right hand and forearm as a result. In another case a pantryman had placed lye in the sink, turned a powerful stream of water on it whereupon it splashed up and burned his face. Fortunately it did not hit his eyes.

Even the most commonly used preparations should be used with care. "Familiarity breeds contempt," it is said, and many of the preparations we use every day are handled too carelessly for that reason. Our records show a case of the death of a seaman from an overdose of "aspirin."

All ships carry goggles to be used as protection while at work involving danger to eyes. Recently a ship's carpenter was drilling a hole in a steel deck. According to the master's report, he should have been wearing goggles while engaged in such work. He did not take that precaution with the result that steel splinters lodged in his right eye. The splinters were removed, but the sight of the eye has been permanently impaired.

Marvelous aids for the blind have been developed in recent years and today even an adaptation of radar is being worked out. But you'll find no blind man who would not trade every such aid for the restoration of sight now grown so precious and dear, yet withal so impossible to recover. Take care of your eyes—wear goggles on dangerous work. Taking the precaution of wearing them is just as much a part of the job at hand as using the right size bit for your drill. Take time to be careful. See that your eyes are properly protected so that they can go on seeing for you.

Eyesight is precious—following directions is cheap. Be careful and SEE.

CHECK YOUR COMPASS

Most ferry pilots depend upon visual observation, both day and night, for their bearings in traversing their short routes from one terminal to another. However, when visibility is limited they must rely on their compasses.

A ferry recently grounded while the pilot was steering by compass in a dense fog. It was later discovered that unbeknownst to him a truck with a heavy load of steel was being ferried and was in close proximity to the pilot house. This steel caused a deviation in the compass unnoted by the pilot with the result that the ferry grounded.

All ferry pilots should know the headings borne by their compasses while in their slips and, when thick weather prevails, should check before undocking to see if there is any deviation. Such checking would immediately disclose any error before the vessel leaves the slip, insure the reliability of the compass, and, as in this instance, prevent the grounding of a vessel.

No matter how little the visibility, half of it belongs to the other vessel

APPENDIX

Proposed Rule Making

[33 CFR, Ch. I and Ch. III; 46 CFR, Ch. I]

MERCHANT MARINE COUNCIL PUBLIC HEARING

NOTICE OF PROPOSED CHANGES IN REGULATIONS

1. The Merchant Marine Council will hold a public hearing in Room 8205, Coast Guard Headquarters, Thirteenth and E Streets NW., Washington, D. C., on March 26, 27, and 28, 1947. The meetings will convene at 9:30 a. m. and the agenda for this hearing is as follows:

March 26—Marine engineering regulations and material specifications, welding electrode specifications.

March 27—Casualty and accident investigations. Suspension and revocation proceedings. Great Lakes pilot rules. Dangerous cargo regulations. Termination of approval of equipment (York-Shipley boilers).

March 28—Use of liquefied petroleum gases on vessels other than passenger vessels.

2. The proposed changes in the regulations together with the authorities for making such changes are described generally in the following paragraphs. Copies of the proposed changes in the regulations have been mailed to persons and organizations who have expressed an active interest in the subjects under consideration. Copies of any of the proposed regulations may be obtained from the Commandant (CMC), Coast Guard Headquarters, Washington 25, D. C., so long as they are available. Comments may be submitted in writing prior to the public hearing, or orally or in writing at the hearing. All comments received will be considered before recommending any changes to the Commandant, U. S. Coast Guard. (R. S. 4405, 4417a, and 4472, as amended; 46 U. S. C. 375, 391a, and 170; sec. 4, Administrative Procedure Act, Public Law 404, 79th Congress, 60 Stat. 238)

MARINE ENGINEERING REGULATIONS AND MATERIAL SPECIFICATIONS

3. The regulations in 46 CFR, Parts 51 to 57, inclusive (Subchapter F—Marine Engineering), are being revised and brought up to date so that the regulations and specifications will reflect the experiences gained through wartime operations. In general, the changes are intended to clarify the existing regulations, effect editorial changes, and bring the regulations into closer agreement with the requirements of the American Bureau of Shipping and the boiler and unfired pressure vessel codes of the American Society of Mechanical Engineers and the standards of the American Society for Testing Materials, as well as to incorporate numerous recommendations proposed by boiler manufacturers, marine engineers, and others. It is intended that any amendments adopted by the Commandant will be made effective 90 days after publication in the Federal Register.

4. The regulations in 46 CFR, Part 51, covering material specifications are being revised to bring them into substantial agreement with the latest standards of the American Society for Testing Materials and the American Society of Mechanical Engineers. It is proposed to add three new specifications covering carbon steel bolting material, now in 46 CFR 51.16b–1 to 51.16b–14, inclusive; copper alloy plate, now in 46 CFR 51.21–1 to 51.21–9, inclusive; and flange and fire

box steel plates, now in 46 CFR 51.22–1 to 51.22–11, inclusive. The specifications which are proposed to be revised are as follows:

(a) Marine boiler steel plate; 46 CFR 51.2–1 to 51.2–10, inclusive.

(b) Steel bars and shapes; 46 CFR 51.5–1 to 51.5–10, inclusive.

(c) Lap-welded and seamless steel and lap-welded iron boiler tubes; 46 CFR 51.9–1 to 51.9–16, inclusive.

(d) Electric-resistance-welded steel and open-hearth iron boiler and superheater tubes; 46 CFR 51.9a–1 to 51.9a–18, inclusive.

(e) Seamless steel boiler tubes for high pressure service; medium-carbon seamless steel boiler and superheater tubes; carbon-molybdenum alloy-steel boiler and superheater tubes; 46 CFR 51.10–1 to 51.10–18, inclusive.

(f) Steel pipe; 46 CFR 51.11–1 to 51.11–9, inclusive.

(g) Welded and seamless steel pipe; 46 CFR 51.11a–1 to 51.11a–19, inclusive.

(h) Electric-resistance-welded steel pipe; 46 CFR 51.11b–1 to 51.11b–19, inclusive.

(i) Welded wrought-iron pipe; 46 CFR 51.12–1 to 51.12–10, inclusive.

(j) Seamless brass pipe; 46 CFR 51.13–1 to 51.13–14, inclusive.

(k) Seamless copper pipe; 46 CFR 51.14–1 to 51.14–10, inclusive.

(l) Steel forgings; 46 CFR 51.15–1 to 51.15–14, inclusive.

(m) Alloy-steel bolting material; 46 CFR 51.16–1 to 51.16–8, inclusive.

(n) Carbon and alloy-steel nuts for high temperature service; 46 CFR 51.16a–1 to 51.16a–9, inclusive.

(o) Steel castings; 46 CFR 51.17–1 to 51.17–13, inclusive.

(p) Malleable iron castings; 46 CFR 51.19–1 to 51.19–17, inclusive.

(q) Bronze castings; 46 CFR 51.20–1 to 51.20–10, inclusive.

5. The other proposed regulations for 46 CFR, Parts 51 to 57, inclusive (Subchapter F—Marine Engineering), will amend 46 CFR 51.1–7, tension tests; 46 CFR 51.1–13, stamping plates and specimens; 46 CFR 52.1–1, definition of pressure vessel; 46 CFR 52.5–3, computations and detail requirements of pressure vessel heads; 46 CFR 52.6–4, computations of openings and reinforcements; 46 CFR 52.13–5, 52.14–1 to 52.14–6, inclusive, safety valves and relief valves; 46 CFR 52.15–2, 52.15–6, 52.15–11, and 55.19–10 (j), boiler mountings and attachments; 46 CFR 52.16–1 to 52.16–7, inclusive, evaporators, heaters, traps, separators, pressure vessels, and miscellaneous appliances; 46 CFR 53.17–3, damper installations; 46 CFR 54.18–2, testing and inspection of new boilers; 46 CFR 54.18–5, inspection of mountings and attachments; 46 CFR 54.18–12, unfired pressure vessels; 46 CFR 55.19–3, detailed requirements re piping systems; 46 CFR 55.19–6, Class I, piping, Table P–1, piping stresses; 46 CFR 55.19–8, flange standards and methods of attachment; 46 CFR 55.19–9, bolting in piping systems; 46 CFR 56.20–1 to 56.20–19, inclusive, fusion welding; 46 CFR 57.21–1 to 57.21–23, inclusive, re forms, welding, repairs, and brazing. The intent of these proposed changes is to clarify existing regulations, effect editorial changes and bring the regulations into closer agreement with the requirements of the American Bureau of Shipping and the standards of the American Society for Testing Materials and the American Society of Mechanical Engineers as well as to incorporate recommendations proposed by boiler manufacturers, marine engineers, and others.

6. The authority for regulations on marine engineering and material specifications is in R. S. 4405, 4417a, 4418, 4426, 4429–4434, as amended, 49 Stat. 1544, sec. 2, 54 Stat. 1026, and sec. 5 (e), 55 Stat. 244; 46 U. S. C. 367, 375, 391a, 392, 404, 407–412, 463a, 50 U. S. C. 1275; and Reorganization Plan No. 3 of 1946, 11 F. R. 7875.

WELDING ELECTRODE SPECIFICATIONS

7. As the result of the study made on the problem of structural failures in the hulls of merchant vessels by the board appointed by the Secretary of the Navy to investigate design and construction practices, certain recommendations and corrective steps were indicated in the report. Two of the steps recommended were new electrode specifications and corresponding reclassification of listed brands. Two new specifications are proposed to be added to 46 CFR, Subchapter Q—Specifications; one as a specification for electrodes (covered), welding, medium steel, for merchant vessels (46 CFR, Subpart 164.700), and the other as a specification for electrodes (covered), welding, molybdenum alloy steel for merchant vessels (46 CFR, Subpart 164.701).

8. At present there are three different sets of specifications intended to classify electrodes for ship construction purposes, which are promulgated by the American Bureau of Shipping, the U. S. Navy, and the U. S. Coast Guard. In order to streamline the approval of electrodes intended for use in the construction of merchant vessels and equipment subject to inspection by the Coast Guard, a new approval procedure has been agreed upon by the American Bureau of Shipping, the U. S. Navy, and the U. S. Coast Guard. The electrodes will be tested in a Naval Laboratory and the tests will be witnessed by a surveyor of the American Bureau of Shipping, which agency will prepare a list of approved electrodes for public circulation. The Coast Guard will make no separate listing of welding electrodes, but will accept the welding electrodes listed on this new American Bureau of Shipping's list.

9. The new specifications proposed are intended to implement this new arrangement for welding electrode approvals. The new specifications refer to the Navy specifications for all types of electrodes included therein. In addition, three types of welding electrodes are permitted and the testing of these three types will be made according to the American Welding Society-American Society for Testing Materials specifications. The listing of welding electrodes for all types of ship construction will be identical except for certain brands permitted for certain limited applications on merchant ship construction. The specifications include three principal additions to the currently effective American Welding Society-American Society for Testing Materials specifications, which are X-ray tests, humidity tests, and a standard color marking to designate the different classes of welding electrodes. The X-ray examination of the welds is intended to improve the general soundness of the welds. Electrodes capable of depositing superior weld metal under tests will obviously give superior welds under ordinary operating conditions. The humidity test is intended to cull out those welding electrodes which might deteriorate too quickly in storage. The standard color marking for different classes of welding electrodes is intended to reduce confusion because at present there is no uniform system by which different types of electrodes can be distinguished and various manufacturers have adopted distinguishing marks which have created confusion when intermingled with welding electrodes of other brands. The Navy specifications include these three principal additions which have already been widely adopted by industry. The American Bureau of Shipping's approved list of welding electrodes includes all electrodes currently approved by either the U. S. Navy or the American Bureau of Shipping. It is intended to permit all brands and types of electrodes on this list until evidence is received from laboratory work that certain electrodes do not comply with the proposed specifications.

10. It is proposed to amend 46 CFR 37.2–5, 37.2–7, 59.15, 60.12, and 76.18, regarding welding in construction of lifeboats, life rafts, etc., in order to make proper editorial references to proposed welding electrode specifica-

tions. The regulation in 56 CFR 56.20–3a, regarding the approval of welding electrodes or welding rods will be canceled.

11. The authority for regulations on welding electrode specifications is in R. S. 4405, 4417a, 4418, 4426, 4429, 4430, 4433, 4434, 4488, 4491, as amended, 49 Stat. 1544, sec. 2, 54 Stat. 1028, sec. 5 (e), 55 Stat. 244; 46 U. S. C. 367, 375, 391a, 392, 404, 407, 408, 411, 412, 463a, 481, 489, 50 U. S. C. 1275; and sec. 101 Reorganization Plan No. 3 of 1946, 11 F. R. 7875.

CASUALTY AND ACCIDENT INVESTIGATIONS

12. The temporary wartime rules for casualty and accident investigations in 46 CFR 136.100 to 136.112, inclusive, were based in part on a waiver of certain requirements of 46 U. S. C. 239 (R. S. 4450). It is necessary that the regulations and procedures be revised to comply with the changes in the statutes made by Reorganization Plan No. 3 of 1946 (11 F. R. 7875) and the Administrative Procedure Act (Public Law 404, 79th Congress, 60 Stat. 238). The proposed regulations will cancel the regulations in 46 CFR, Parts 136 and 137, which were suspended by the waiver of the Commandant, U. S. Coast Guard, dated August 26, 1942, 7 F. R. 6778, and will revise the regulations in 46 CFR 136.100 to 136.112, inclusive. Only the minimum changes in regulations have been made in this part to comply with the new statutory requirements, and the present regulations will be reissued in modified form as new regulations. The proposed regulations will separate insofar as possible procedural requirements from substantive requirements and will provide definite procedures for Marine Boards of Investigations which will replace the "A", "B", and "C" Boards formerly required by 46 U. S. C. 239. However, where a marine casualty or accident is not a major marine casualty only an investigating officer will perform the functions formerly made by one of the boards required by 46 U. S. C. 239. The proposed regulations also contain new regulations regarding disclosure of records, persons in service of Coast Guard, depositions, construction of rules and rules of evidence, and computation of time.

13. The authority for regulations on casualty and accident investigations is in R. S. 4450, as amended, 46 U. S. C. 239; the Administrative Procedure Act, Public Law 404, 79th Congress, 60 Stat. 238; and Reorganization Plan No. 3 of 1946, 11 F. R. 7875.

SUSPENSION AND REVOCATION PROCEEDINGS

14. The rules for suspension and revocation proceedings dealing with licenses and certificates issued by the Coast Guard or its predecessors to merchant marine personnel were also contained in the temporary wartime rules for casualty and accident investigations in 46 CFR 136.100 to 136.112, inclusive. The Administrative Procedure Act (Public Law 404, 79th Congress, 60 Stat. 238), and Reorganization Plan No. 3 of 1946 (11 F. R. 7875) require that the regulations and procedures be revised and modified. Only the minimum changes in the present rules have been made in this part to comply with the new statutory requirements. It is proposed to revise the requirements in 46 CFR 136.100 to 136.112, inclusive, regarding suspension and revocation proceedings, and to transfer such regulations to 46 CFR, Part 137, which will contain the rules for suspension and revocation proceedings only. These regulations will be issued as new regulations. The proposed regulations will require the use of examiners to conduct the hearings in suspension and revocation proceedings who will have the authority to make a final decision subject to an appeal to the Commandant, U. S. Coast Guard. This is in accordance with present regulation in 46 CFR–4.05–3, published in the Federal Register November 30, 1946 (11 F. R. 13970). The proposed regulations cover the requirements for investigating officers, preliminary investigations, hearings and responsibility of examiners. There have also been added rules regarding disclosure of records, definitions, depositions, construction of rules and rules of evidence, taking of official notice of facts by examiners, submission of briefs, proposed findings and conclusions, and disqualification of examiner.

15. The authority for rules on suspension and revocation proceedings is in R. S. 4450, as amended, 46 U. S. C. 239; Administrative Procedure Act, Public Law 404, 79th Congress, 60 Stat. 238; and Reorganization Plan No. 3 of 1946, 11 F. R. 7875.

GREAT LAKES PILOT RULES

16. Upon a petition of the Lakes Carriers' Association, proposed changes in the Pilot Rules for the Great Lakes will be considered. The proposed changes deal with regulations in 33 CFR, Part 322. The recommendations made are to improve the Pilot Rules for the Great Lakes and cover the following pilot rules:

(a) Definitions and risk of collision (33 CFR 322.02).

(b) Signals and rules of the road (33 CFR 322.1, 322.4 to 322.8, inclusive, 322.10, and 322.13).

(c) Distress signals (33 CFR 322.15).

17. The authority for Pilot Rules for the Great Lakes is in section 3, 28 Stat. 649, 33 U. S. C. 243, and Reorganization Plan No. 3 of 1946, 11 F. R. 7875.

DANGEROUS CARGO

18. It is proposed to amend 33 CFR 6.25 entitled, "Authority to load, unload, or transport Class A explosives," by adding a new regulation requiring that the present application for a permit to load explosives submitted to the Captain of the Port shall be accompanied with a preliminary dangerous cargo stowage plan and detailed manifest of other dangerous cargo proposed to be loaded on board the vessel. The permit to load explosives will be granted after a satisfactory loading and stowage plan has been approved by the Captain of the Port. The authority for this regulation is in section 1, Title II of the Espionage Act, approved June 15, 1917, 40 Stat. 220, as amended by the act of November 15, 1941, 55 Stat. 763, 50 U. S. C. 191, 191c, and Proclamation No. 2412, dated June 27, 1940, 3 CFR Cum. Supp.

19. It is proposed to amend the present regulation in 46 CFR 146.24–15 regarding liquid chlorine in bulk by adding specific authority in 46 CFR 146.24–15 (j) for the customary operational practice of the carrier to replace relief valves whenever he deems it to be necessary for safety and to delete the requirement in 46 CFR 146.24–15 (k), regarding sea cocks of an approved design for the purpose of sinking the barge in the event of an emergency, since it is agreed that sinking the barge may be more hazardous than controlling any leaks. The authority for this regulation is in R. S. 4472, as amended, 46 U. S. C. 170, and Reorganization Plan No. 3 of 1946, 11 F. R. 7875.

TERMINATION OF APPROVAL OF EQUIPMENT

20. The termination of approval of the York-Shipley heating boilers, models M–500, M–800, M–1200, M–1500, and HW–250 will be considered because these types of boilers are no longer being manufactured. In the proposed termination of approval it is intended that any of these types of boilers now in use may be continued in service so long as they are in good and serviceable condition. The authority for terminating this approval is in R. S. 4405, 4417a, 4429–33, and 4491, as amended, 49 Stat. 1544, 46 U. S. C. 367, 375, 391a, 407–411, 489, and section 101, Reorganization Plan No. 3 of 1946, 11 F. R. 7875.

USE OF LIQUEFIED PETROLEUM GASES ON VESSELS OTHER THAN PASSENGER VESSELS

21. The Merchant Marine Council at a public hearing held October 22, 1948, in accordance with the announcement

published in the Federal Register, dated September 27, 1946 (11 F. R. 11014), received comments concerning the use of liquefied petroleum gases for cooking and heating purposes when considering proposed regulations to be added to the Tank Vessel Regulations in 46 CFR, Part 34, and proposed minor amendments to regulations in 46 CFR 61.25 (g), 77.24 (g), 95.24 (g), and 114.25 (g), covering cargo vessels. Because of the rapid increase in the use of liquefied petroleum gases and proposed studies to be made by various organizations, the Merchant Marine Council decided to postpone final recommendations on the proposed amendments until further study of the subject was made and additional suggestions could be received.

22. The proposed regulations for using liquefied petroleum gases for cooking and heating purposes on vessels other than passenger vessels are based on the comments and suggestions made at the public hearing held by the Merchant Marine Council and the study made since October 22, 1946. The new regulations cover the use of liquefied petroleum gases on tank vessels and revise and amend the regulations in 46 CFR 61.25, 77.24, 95.24, and 114.25 applicable to cargo vessels. If the regulations are adopted, it is intended that they will be made effective 90 days after the date of publication of the document in the Federal Register.

23. The authority for regulations on use of liquefied petroleum gases on vessels other than passenger vessels is in R. S. 4405, 4417, 4417a, 4418, 4426, 4427, and 4491, as amended, 35 Stat. 428, 49 Stat. 1544, sec. 2, 54 Stat. 1028, sec. 5 (e), 55 Stat. 244; 46 U. S. C. 367, 375, 391, 391a, 392, 395, 404, 405, 463a, 489, 50 U. S. C. 1275; and Reorganization Plan No. 3 of 1946, 11 F. R. 7875.

Dated: February 13, 1947.

[SEAL] MERLIN O'NEILL,
Rear Admiral, U. S. Coast Guard,
Acting Commandant.

[F. R. Doc. 47-1521; Filed, Feb. 17, 1947; 8:55 a. m.; 12 F. R. 1109, Feb. 18, 1947]

Amendments to Regulations

TITLE 33—NAVIGATION AND NAVIGABLE WATERS

Chapter I—Coast Guard, Department of the Treasury

PART 6—SECURITY OF PORTS AND THE CONTROL OF VESSELS IN THE NAVIGABLE WATERS OF THE UNITED STATES

SUBPART C—ANCHORAGE AND RESTRICTED AREAS

Pursuant to the authority contained in section 1, Title II, of the Espionage Act approved June 15, 1917, 40 Stat. 220, as amended by the act of November 15, 1941, 55 Stat. 763 (50 U. S. C. 191, 191c), and by virtue of Proclamation 2412, June 27, 1940 (3 CFR Cum. Supp.), the regulations for the Security of Ports and Control of Vessels in the Navigable Waters of the United States are amended as follows, which shall become effective upon the date of publication of this order in the Federal Register:

FIRST NAVAL DISTRICT

1. Section 6.1-27 *Narragansett Bay, Naval Torpedo Station Torpedo Testing Area,* is canceled.

FIFTH NAVAL DISTRICT

2. Paragraphs (1) and (2) of § 6.5-15 are repealed, and the following paragraph (1) is substituted in lieu thereof:

§ 6.5-15 *Chesapeake Bay; Lynnhaven Roads, anchorage grounds*—(1) *Anchorage L-A, naval anchorage.*—Beginning at a point 5,350 yards, 308° true from Cape Henry Light, a line thence 10,350 yards, 288° true; thence 1,820 yards, 203° true; thence 6,140 yards, 108° true; thence 1,350 yards, 173°30' true; thence 4,525 yards, 108° true; thence 3,075 yards, 005°30' true to the point of beginning.

NOTE: This anchorage is reserved primarily for the use of naval vessels, but in the absence of the fleet, the Captain of the Port may, in his discretion, permit it to be used by merchant vessels. Movement of vessels through the area will not be restricted.

3. A new § 6.5-30 is added to read as follows:

§ 6.5-30 *York River, Virginia; naval anchorages*—(a) *The anchorage grounds*—(1) *Anchorage Y-1, naval anchorage.*—The area enclosed by lines drawn as follows: Beginning at a point 700 yards, 018° true from Tue Marshes Light; thence 900 yards, 359° true; thence 4,090 yards, 255° true; thence 6,000 yards, 270°30' true; thence 450 yards, 180° true; thence 2,300 yards, 115° true; thence 3,690 yards, 083° true; thence 4,340 yards, 075° true to the point of beginning.

(2) *Anchorage Y-2, naval anchorage.*—The area enclosed by lines drawn as follows: Beginning at a point 2,650 yards, 302° true from Gloucester Point Light, a line thence 500 yards, 047° true; thence 2,700 yards, 317° true; thence 2,960 yards, 302° true; thence 2,140 yards, 316° true; thence 500 yards, 226° true; thence 2,270 yards, 136° true; thence 2,850 yards, 122° true; thence 2,660 yards, 136° true to the point of beginning.

(b) *The regulations.*—These anchorages are exclusively for the use of naval vessels and, except in cases of emergency, no other vessel shall anchor in the above described areas without permission from the local naval authorities, obtained through the Captain of the Port, Norfolk, Virginia. Movement of vessels through the anchorages will not be restricted.

4. Sections 6.5-137 (b) (1) and 6.5-137 (b) (5) (*a*) are amended to read as follows:

§ 6.5-137 *Patuxent River, Maryland, restricted areas.* * * *

(b) *The regulations*—(1) *Distance from military establishments.*—Except in the gut off the tip of Point Patience, no craft shall approach closer than 75 yards to beaches, shore line, or piers of Naval Mine Warfare Test Station and Naval Air Station property. Civilian craft shall not approach rafts, barges, and platforms closer than 100 yards.

* * * * *

(5) *Seaplane landing area.* * * *

(*a*) Will be confined to areas not less than 75 yards nor more than 500 yards from the beaches of the Air Center.

5. A new § 6.5-270 is added to read as follows:

§ 6.5-270 *James River, Skiffes Creek, Virginia, restricted area*—(*a*) *The area.*—A restricted area, for use of the War Department, located in James River, Virginia, off the entrance to Skiffes Creek, is hereby established. The area is enclosed within the following boundaries: Beginning at a point lying 650 yards, 015° true from Deep Water Shoals Light structure, extending thence 555 yards, 090° true; thence 1,650 yards, 018° true; thence 760 yards, 270° true; thence 1,590 yards, 190° true to the point of beginning.

(*b*) *The regulations.*—(1) The above area is for the use of vessels of the War Department. No other vessels or craft shall enter the area, except as provided in subparagraph (3).

(2) Vessels anchored in the area shall be anchored so as not to obstruct the arc of visibility of Deep Water Shoals Light.

(3) Nothing in these regulations shall prevent the setting of fish traps within the area, under permits granted by the War Department, nor shall the passage of fishing vessels to and from authorized traps be unreasonably interfered with or restricted.

6. Section 6.5-295 *Albemarle Sound; intracoastal waterway, target danger areas,* is amended by cancelling subparagraph (2) (*Target No. 8*) of paragraph (a).

7. Section 6.5–305 *Pamlico Sound, Hancock and Slocum Creeks, prohibited area*, is cancelled.

8. Section 6.5–325 *Maryland-Virginia Seacoast, Sinepuxent and Chincoteague Bays, target danger areas*, is amended by cancelling subparagraph (3) (*Target No. 28*) of paragraph (a).

SIXTH NAVAL DISTRICT

9. Section 6.6–7 *Waters of the Cape Fear River, North Carolina, restricted area*, is cancelled.

TENTH NAVAL DISTRICT

10. A new § 6.10–50 is added to read as follows:

§ 6.10–50 *Vieques Sound, Puerto Rico, explosive anchorages and ammunition handling berths*—(a) *The anchorages*—(1) *Anchorage No. 1 (explosives)*.—The circular area of 2,000 yards radius about the center, located at 18°11'12'' North Latitude, 65°33'12'' West Longitude, is designated an Explosive Anchorage and Ammunition Handling Berth.

(2) *Anchorage No. 2 (explosives)*.—The circular area of 2,000 yards radius about the center, located at 18°11'48'' North Latitude, 65°26'06'' West Longitude, is designated an Explosive Anchorage and Ammunition Handling Berth.

(b) *The regulations*.—No vessel or craft shall enter or remain in the above designated areas while occupied by vessels having on board explosives or other dangerous cargo. These regulations will be enforced by the Commandant, Tenth Naval District and the Captain of the Port, San Juan, Puerto Rico.

TWELFTH NAVAL DISTRICT

11. Section 6.12–5 is amended by changing subparagraphs (13) and (26) of paragraph (a) and by changing paragraph (b) to read as follows:

§ 6.12–5 *General anchorage areas for San Francisco Bay, San Pablo Bay, Carquinez Strait, Suisun Bay, New York Slough and San Joaquin River, California*—(a) *General anchorages*. * * *

(13) *Anchorage No. 13 (explosives)*.—The circular area having a radius of 1,000 feet about a white buoy used to mark the location of this anchorage, the center of which is 2,000 yards 038° true from the most northerly extremity of California Point. The circular zone, 2,000 feet wide, partially surrounding this Explosives Anchorage No. 13, is forbidden anchorage and shall not be used as anchorage by any vessels. The additional area included by a 2,000 yard radius is to be vacated when the anchorage is occupied by a vessel handling explosives and having on board 3,000 tons or more of explosives which will or may explode en masse.

* * * * *

(26) *Suisun Bay; Anchorage No. 26 (general)*.—The area on the west side of Suisun Bay adjacent east and northeast of the city of Benecia within the boundaries: The northeast edge of the Southern Pacific Bridge from the north shore to the first siren; thence 550 yards, 077½° true; thence 6,650 yards, 035° true; thence 2,100 yards, 044° true; thence 314° true to the shore and along the shore to the point of beginning.

* * * * *

(b) *The regulations and special limitations*—(1) *Anchorage No. 1*.—Except as described below in this paragraph, this anchorage is a temporary anchorage reserved for the use of vessels entering port while undergoing examination by quarantine, customs or immigration authorities. Upon completion of these examinations vessels shall promptly move out of this anchorage. Yachts may anchor in that portion of this area lying south of a line between Anita Rock Buoys and the northern extremity of Pier 45; west of Steiner Street extended; and east of Lyon Street extended. No permanent moorings shall be placed in the above described area.

(2) *Anchorage No. 5*.—Vessels may anchor in this anchorage immediately adjacent to the channel to Richmond Inner Harbor: *Provided, however*, That ships obstructing the said channel must move from their positions immediately if and when the fairway is required by vessels navigating the channel.

(3) *Anchorage No. 7*.—Vessels are not authorized to remain anchored in this anchorage for a period exceeding 24 hours without special permission from the Captain of the Port. Permission is not required to anchor in this anchorage for a period of less than 24 hours.

(4) *Anchorage No. 10*.—(i) This anchorage is for the use of public vessels of the United States, but may be used by yachts when not required for use by public vessels.

(ii) All yachts making use of this anchorage shall be prepared to move immediately upon notice, should the anchorage be required for public vessels.

(iii) With the permission of the Captain of the Port, permanent yacht moorings may be placed within this anchorage, not more than 900 feet from the shore and not outside the limiting lines of the anchorage.

(5) *Anchorage No. 11*.—This anchorage is reserved for the exclusive use of vessels and seaplanes of the United States Navy.

(6) *Anchorage No. 12*.—This anchorage is reserved for the use of vessels of the United States or foreign navies and for other public vessels of the United States. With the permission of the Captain of the Port this anchorage may be used temporarily by vessels other than public vessels, but vessels availing themselves of this privilege must hold themselves in readiness to shift berth immediately upon receiving notice to do so.

(7) *Anchorages Nos. 13, 14, 19–A, 22 and 23*.—(i) These anchorages are for the use of vessels loaded with, loading, or unloading explosives, and these anchorages shall not be used by any other vessels.

(ii) Subdivision (i) of this subparagraph is not intended to prohibit lighters and barges from tying up alongside of ships for the transfer of cargo.

(iii) The circular zones 1,500 feet wide surrounding the Explosives Anchorages Nos. 14 and 19–A are forbidden anchorages and no vessel shall anchor therein.

(iv) Except as provided in subdivision (ii) of this subparagraph, vessels carrying explosives or other dangerous articles, including inflammable liquids, inflammable solids, oxidizing materials, corrosive liquids, compressed gases, and poisonous substances, shall be anchored within Anchorages Nos. 13, 14, 15, 16, 19–A, 22, and 23 only.

(v) Whenever any water craft, while carrying explosives and not fitted with mechanical power, anchors in Anchorages Nos. 13, 14, or 19–A, the Captain of the Port may require the attendance of a tug when, in his judgment, such action is deemed necessary.

(8) *Anchorages Nos. 15 and 16*. (i) These anchorages are for the purpose of storage of explosives.

(ii) Barges and vessels shall be anchored so as not to approach one another closer than 500 feet.

(iii) All barges using these anchorages for storage purposes shall anchor with two or more anchors.

(iv) The Captain of the Port may authorize the placing of moorings within these areas, provided these moorings be so placed that barges at one mooring shall at all times be not less than 500 feet from barges at an adjacent mooring.

(v) The square zones 1,500 feet wide surrounding Explosives Storage Anchorages Nos. 15 and 16 are forbidden anchorages and no vessel shall anchor therein.

(9) *Anchorage No. 26*.—Vessels other than those under Federal supervision shall not go alongside or in any manner moor to any Government-owned vessel, mooring buoy, or pontoon boom, their anchor cables, or any of their appendages. Vessels other than those under Federal supervision shall not obstruct or interfere

in any manner with the mooring, unmooring, or servicing of vessels owned by the United States.

12. Section 6.12–125 (a) is amended to read as follows:

§ 6.12–125 *Benicia Arsenal restricted area; Carquinez Strait and Suisun Bay at Benicia, California*—(a) *The area.*—The area in Carquinez Strait and Suisun Bay at Benicia, California, is hereby defined and established as a restricted area: Beginning at the North Siren on the Southern Pacific Bridge, Suisun Bay, California, running thence 1,375 yards, 232½° true; thence 1,075 yards, 314° true to a point on the shore 1,850 yards, 268½° true from the North Siren; thence along the shore to the Southern Pacific Bridge and along the Southern Pacific Bridge to the point of beginning.

13. A new § 6.12–152 is added to read as follows:

§ 6.12–152 *Naval Operating Area in Monterey Bay, California*—(a) *The area.* An area in Monterey Bay is established as an operating area for Navy Minecraft operations, as follows: The area enclosed within the line starting at the stack in about 36°58′06″ North Latitude, 121°54′06″ West Longitude, thence 6 miles, 230° true; thence 7.5 miles, 140° true; thence 050° true to the beach; thence along the beach to the starting point.

(b) *The regulations.* This area will be used for training in various phases of mine warfare operations. During the period from August 1st to February 15th each year, no operations shall be carried on which will involve placing any obstructions in the water nor shall any operations be carried on at night. During the period from February 16th to July 31st each year, operations may be carried on which will involve laying exercise mines and other moored or bottom obstructions. In each case when moored or bottom obstructions are laid a notice to mariners shall be issued giving notice of the approximate location within the operating area.

THIRTEENTH NAVAL DISTRICT

14. Section 6.13–125 *Columbia River, Oregon, Slough Anchorage,* is cancelled.

(40 Stat. 220, as amended, 55 Stat. 763; 50 U. S. C. 191, 191c; Proc. 2412, June 27, 1940, 3 CFR Cum. Supp.)

E. H. FOLEY, Jr.,
Acting Secretary of the Treasury.

Approved: February 12, 1947.

HARRY S. TRUMAN,
The White House.

[F. R. Doc. 47–1520; Filed, Feb. 17, 1947; 8:49 a. m.; 12 F. R. 1107, Feb. 18, 1947]

Navigation and Vessel Inspection Circular No. 0-47

1. At the end of December 1946, 78 circulars have been issued in the series known as Navigation and Vessel Inspection Circulars. The numbering of these circulars has been changed so that the number will indicate the calendar year in which issued. During this year the series will be numbered starting with 0–47, 1–47, 2–47, etc.

2. Navigation and Vessel Inspection Circulars still in effect as of 1 January, 1947 are:

No.	SUBJECT
4	Allotments of seamen.
11	Elimination of Secretary's permit to use petroleum as fuel.
13	Allotments of seamen's wages for the purpose of purchasing United States war savings bonds or war savings stamps or both.
14.	Renewing or raising the grade of licenses of officers.

The below listed Navigation and Vessel Inspection circulars remain in effect as of January 1, 1947. They are in numerical order and the page number and date of publication, starting with No. 45 in the February 1944 issue of the Proceedings are supplied for ready reference. Those listed but having no page number or date of issue were promulgated prior to the establishment of the Proceedings.

No.	Subject	Issue	Page No.
4	Allotments of seamen		
11	Elimination of Secretary's permit to use petroleum as fuel		
13	Allotments of seamen's wages for the purpose of purchasing United States war savings bonds or war savings stamps or both.		
14	Renewing or raising the grade of licenses of officers		
26	Physical requirements for licensed officers and certificated men		
27	Gas explosions in furnaces of water-tube boilers		
31	Manning of American merchant vessels, waiver		
34	Relationship between R. S. 4463 and navigation and vessel inspection circular No. 31; crew shortage reports required under R. S. 4463, form of.		
35	Return of shipwrecked American seamen from insular possessions of the United States.		
36	Relief and repatriation of American Seamen		
37	New procedure for effecting waivers of navigation and vessel inspection laws.		
38	Lifesaving equipment; substitutes for manila rope		
39	Procedure for effecting waivers of navigation and vessel inspection laws relating to employment as watch officers of persons who are not citizens of the United States.		
40	Navigation and vessel inspection laws; waiver of, upon request of Secretary of War.		
41	What are "public vessels" of the United States within the exemption of such vessels from the inspection laws; extension of the exemption of certain vessels by waiver order of the Commandant.		
43	Waiver of navigation and vessel inspection laws in respect of cargo vessels equipped with certificates issued by the British Ministry of War transport under provisions of regulation 47BB of the defense (general) regulations, 1939.		
44	Waiver of navigation and vessel inspection laws upon request of naval district commandants.		
45	Disposition of overtime earnings subject to forfeiture for alleged desertion of merchant seamen.	February 1944	35
46	Computation of seamen's wages	do	35
49	Allotments by merchant seamen for purchase of war bonds	September 1944	196
50	Applicability of R. S. 4638–4545 (46 U. S. C. 621–628) to the disposal of wages of deceased merchant seamen, including those of foreign nationalities employed on foreign flag vessels of War Shipping Administration.	do	196
53	Procedure for effecting waivers of navigation and vessel inspection laws relating to employment as watch officers of persons who are not citizens of the United States.	December 1944	244
56	Waivers of navigation and vessel inspection laws in Canal Zone ports and foreign ports.	February 1945	28
59	New vessel inspection record for ocean and coastwise vessels	May 1945	75
60	Defective carbon steel castings; repair of	June 1945	90
63	Allotments of seamen	November 1945	176
64	Provisions, or rations, for lifeboats and life rafts on ocean and coastwise, passenger, freight, and tank vessels.	January 1946	13
65	Warning passengers of dangerous conditions	do	13
67	Routine boarding of United States merchant vessels by Coast Guard merchant marine hearing unit examining officer; discontinuance of.	April 1946	57
68	Conditional waiver of manning requirements; amendment to navigation and vessel inspection circular No. 31.	do	57
69	Transportation of civilian passengers in the the national interests	do	59
70	Structural alterations and reinforcements on liberty ships	do	60
71	Policy and special procedure in maritime labor disputes	May 1946	75
72	Navigation and vessel inspection circular No. 70; amendment to	August 1946	122
74	Strict compliance with routing instructions	September 1946	146
75	Numbering of certain undocumented vessels sold as surplus by the U. S. Maritime Commission or War Shipping Administration.	do	146
76	Mediterranean routing instructions and north east European coastal routing instructions; requirements for.	do	147
77	Requirements for motorboats operated for pleasure and commercial fishing purposes.	February 1947	33
78	Numbering of certain undocumented vessels sold as surplus by the U. S. Maritime Commission or War Shipping Administration; amendment to Navigation and Vessel Inspection Circular No. 75.	January 1947	13

26 Physical requirements for licensed officers and certificated men.
27 Gas explosions in furnaces of watertube boilers.
31 Manning of American merchant vessels, waiver.
32 Manufacture and sale of lifesaving equipment not conforming with approved design or specifications.
34 Relationship between R. S. 4463 and navigation and vessel inspection circular No. 31; crew shortage reports required under R. S. 4463, form of.
35 Return of shipwrecked American seamen from insular possessions of the United States.
36 Relief and repatriation of American seamen.
37 New procedure for effecting waivers of navigation and vessel inspection laws.
38 Lifesaving equipment; substitutes for manila rope.
39 Procedure for effecting waivers of navigation and vessel inspection laws relating to employment as watch officers of persons who are not citizens of the United States.
40 Navigation and vessel inspection laws; waiver of, upon request of Secretary of War.
41 What are "public vessels" of the United States within the exemption of such vessels from the inspection laws; extension of the exemption of certain vessels by waiver order of the Commandant.
43 Waiver of navigation and vessel inspection laws in respect of cargo vessels equipped with certificates issued by the British Ministry of War transport under provisions of regulation 47BB of the defense (general) regulations, 1939.
44 Waiver of navigation and vessel inspection laws upon request of naval district commandants.
45 Disposition of overtime earnings subject to forfeiture for alleged desertion of merchant seamen.
46 Computation of seamen's wages.
49 Allotments by merchant seamen for purchase of war bonds.
50 Applicability of R. S. 4538–4545 (46 U. S. C. 621–628) to the disposal of wages of deceased merchant seamen, including those of foreign nationalities employed on foreign flag vessels of War Shipping Administration.
53 Procedure for effecting waivers of navigation and vessel inspection laws relating to employment as watch officers of persons who are not citizens of the United States.
56 Waivers of navigation and vessel inspection laws in Canal Zone ports and foreign ports.
59 New vessel inspection record for ocean and coastwise vessels.
60 Defective carbon steel castings; repair of.
63 Allotments of seamen.
64 Provisions, or rations, for lifeboats and life rafts on ocean and coastwise passenger, freight, and tank vessels.
65 Warning passengers of dangerous conditions.
67 Routine boarding of United States merchant vessels by Coast Guard merchant marine hearing unit examining officer; discontinuance of.
68 Conditional waiver of manning requirements; amendment to navigation and vessel inspection circular.
69 Transportation of civilian passengers in the national interests.
70 Structural alterations and reinforcements on Liberty ships.
71 Policy and special procedure in maritime labor disputes.
72 Navigation and vessel inspection circular No. 70; amendment to.
74 Strict compliance with routing instructions.
75 Numbering of certain undocumented vessels sold as surplus by the United States Maritime Commission or War Shipping Administration.
76 Mediterranean routing instructions and northeast European coastal routing instructions; requirements for.
77 Requirements for motorboats operated for pleasure and commercial fishing purposes.
78 Numbering of certain undocumented vessels sold as surplus by the United States Maritime Commission or War Shipping Administration; amendment to Navigation and Vessel Inspection Circular No. 75.

3. Alphabetical list of Navigation and Vessel Inspection Circulars remaining in effect on 1 January 1947, are:

SUBJECT

	No.
Allotments of seamen	4
Allotments of seamen	63
Allotments by merchant seamen for purchase of war bonds	49, 13
Allotments of seamen's wages for the purchase of United States war savings bonds or war savings stamps or both	13, 49
Amendment to navigation and vessel inspection circular No. 70	72, 70
Amendment to navigation and vessel inspection circular No. 31: conditional waiver of manning requirements	68, 31
American seamen; relief and repatriation of	36
Certain undocumented vessels sold as surplus by the United States Maritime Commission or War Shipping Administration; numbering of	73, 78
Certificated men and licensed officers; physical requirements for	26
Civilian passengers; transportation of; in the national interest	69
Crew shortage reports required under R. S. 4463, form of; relationship between R. S. 4463 and navigation and vessel inspection circular No. 31	34, 31
Dangerous conditions; warning passengers of	65
Discontinuance of routine boarding of United States merchant vessels by Coast Guard merchant marine hearing unit examining officers	67
Furnaces of watertube boilers; gas explosion in	27
Liberty ships; structural alterations and reinforcements	70, 72
Lifeboats and life rafts on ocean and coastwise passenger, freight, and tank vessels; provisions or rations for	64
Lifesaving equipment not conforming with approved design or specifications; manufacture and sale of	32
Maritime labor disputes; policy and special procedure in	71
Motorboats operated for pleasure and commercial fishing purposes; requirements for	77
Navigation and vessel inspection laws; waivers of in Canal Zone ports and foreign ports	56
Navigation and vessel inspection laws relating to employment as watch officers of persons who are not citizens of the United States; procedure for effecting waivers of	53
Navigation and vessel inspection laws; waiver of; upon request of Naval District Commandants	44
Navigation and vessel inspection laws; waiver of; in respect of cargo vessels equipped with certificates issued by the British Ministry of War transport under provisions of Regulation 47BB of the defense (general) regulations, 1939	43
Navigation and vessel inspection laws relating to employment as watch officers of persons who are not citizens of the United States; procedure for effecting waivers	39
Navigation and vessel inspection laws; new procedure for effecting waivers of	37
Numbering of certain undocumented vessels sold as surplus by the United States Maritime Commission or War Shipping Administration; amendment to Navigation and Inspection Circular No. 75	78, 75
Ocean and coastwise vessels; new vessel inspection record for	59
Overtime earnings subject to forfeiture for alleged desertion of merchant seamen; disposition of	45
Petroleum used as fuel; elimination of Secretary's permit to use	11
Raising the grade of licensed officers; renewing of	14
Repair of defective carbon steel castings	60
Requirement for Mediterranean routing instructions and northeast European coastal routing instructions	76
Routing instructions; strict compliance with	74
Seamen's wages; computation of	46
Shipwrecked American seamen from insular possessions of the United States; return of	35
Substitutes for manila rope; lifesaving equipment	38
Wages of deceased merchant seamen, including those of foreign nationalities employed on foreign flag vessels of War Shipping Administration; applicability of R. S. 4538–4545 (46 U. S. C. 621–628; disposal of	50
Waiver; manning of American merchant vessels	31, 68, 34
Waiver of navigation and vessel inspection laws upon request of Secretary of War	40
What are "public vessels" of the United States within the exemption of such vessels from the inspection laws; extension of the exemption to certain vessels by waiver order of the Commandant	41

4. Navigation and Vessel Inspection Circulars which are canceled, rescinded, replaced by other circulars or have served their purpose:

CANCELED NAVIGATION AND VESSEL INSPECTION CIRCULARS

No.	Subject	Reason
1	Strict compliance with routing instructions	Rewritten and combined in circular No. 74.
2	Bulkhead constructions and insulants	Served its purpose.
3	Waiver of compliance with provisions of certain navigation and inspection laws, relaxing the statutory prerequisites to obtain certificates as able seamen and qualified members of the engine department.	Published in Rules and Regulations for Licensing and Certificating Merchant Marine Personnel.
5	Lifesaving suits	Served its purpose.
6	Amendments to regulations for numbering of motorboats	Do.
7	do	Do.
8	Lookouts	Do.
9	Allotments of seamen	Rescinded by circular No. 63.
10	Construction, conversion and certification of tank barges constructed with materials other than iron or steel for the transportation of certain inflammable and combustible cargoes in bulk.	Basic regulation rescinded.
12	Revocation or suspension of seamen's licenses or certificates for desertion.	Served its purpose.
15	Employment of certain foreign nationals on American, Panamanian, and Honduran flag vessels.	Do.
16	Load line enforcement—countries agreeing to deeper loading during the emergency.	Do.
17	Drills for wartime safety—ocean and coastwise vessels	Do.
18	Necessity of efficient signalling	Do.
19	Order waiving compliance with the provisions of the act of June 7, 1918, as amended, in certain cases.	Do.
20	Waiving compliance with the navigation and vessel inspection laws.	Rescinded by circular No. 37.
21	Physical requirements for licensed officers	Rescinded by circular No. 26.
22	Load line enforcement—Canada extends period of relaxation from international load line convention.	Served its purpose.
23	Abandon ship kits	Do.
24	Drinking water stowage	Do.
25	Discharges issued to merchant seamen covering service on vessels lost through enemy action.	Do.
28	Lifesaving nets	Do.
29	Luminous marking as required by sec. 153.19 of subch. O, title 46 CFR.	Do.
30	Additional means of escape from all ocean and coastwise vessels	Superseded by circular No. 52.
33	Improvement in the design and construction of approved life rafts required on oceangoing merchant vessels under the provisions of sec. 153.2, subch. O, title 46 CFR.	Served its purpose.
42	Improvement in the design and construction of approved life rafts required on oceangoing merchant vessels under the provisions of sec. 153.2, subch. O, title 46, CFR.	Do.
47	New seamen's allotment note	Do.
48	Recommendations for repairing lifeboats and life rafts after encounters with hostile aircraft, submarines, or surface vessels.	Do.
51	Proficiency in signalling of United States licensed deck officers sailing on vessels documented under registry under the laws of the United States.	Do.
52	Additional means of escape from all ocean and coastwise vessels; navigation and vessel inspection circular No. 30.	Do.
54	Proficiency in signalling of United States licensed deck officers sailing on vessels documented under registry under the laws of the United States.	Do.
55	Additional gasoline for merchant seamen based upon length of time spent at sea.	Rescinded by circular No. 62.
57	Eligibility of persons serving with the armed forces for merchant marine licenses.	Provisions contained in published regulations.
58	Armed forces sea service as qualification for merchant marine licenses and period of military service not counted in computing license renewal time.	Do.
61	First aid kits; directions for use of sulfadiazine tablets	Served its purpose.
62	Rescission of navigation and vessel inspection circular No. 55	Do.
66	Posting of documents, forms, and notices under glass and dimming or extinguishing lights on vessels; cancelation and modification of waivers.	Superseded by circular No. 74.
73	Requirements for motorboats operated for pleasure and commercial fishing purposes.	Canceled by circular No. 77.

Equipment Approved by the Commandant

By virtue of the authority vested in me by R. S. 4405, 4417a, 4418, 4426, 4488, and 4491, as amended, 49 Stat. 1384, 1544, 54 Stat. 163–167, sec. 5 (e), 55 Stat. 244 (46 U. S. C. 367, 369, 375, 391a, 392, 404, 481, and 489, 50 U. S. C. 1275), and section 101, Reorganization Plan No. 3 of 1946 (11 F. R. 7875), the following approvals of equipment are prescribed effective February 11, 1947:

BUOYANT CUSHIONS FOR MOTORBOATS

Approval No. B–362, Style No. 104A, 13" x 20" x 2", rectangular buoyant cushion, 24 ounces kapok, Dwg. No. 4, dated January 17, 1947; Approval No. B–363, Style No. 104A1, 13" x 18" x 2", rectangular buoyant cushion, 21 ounces kapok, Dwg. No. 3, dated January 17, 1947; Approval No. B–364, Style No. 105B, 15" x 17" x 2", rectangular buoyant cushion, 23 ounces kapok, Dwg. No. 2, dated January 17, 1947; and Approval No. B–365, Style No. 105BL, 15" x 17" x 2", rectangular buoyant cushion, 23 ounces kapok, Dwg. No. 1, dated January 17, 1947; for use on motorboats of Classes A, 1, and 2 not carrying passengers for hire; manufactured by H. S. White Manufacturing Co., Inc., 6th and Rosabel Streets, St. Paul, Minn.

FIRE RETARDANT MATERIALS FOR VESSEL CONSTRUCTION: CLASS B–15 BULKHEAD PANEL

Solid asbestos, board type, Class B–15 bulkhead panel, light weight Marinite, over-all thickness ¾", identical to that described in Protexol Testing Laboratory Test Report No. 146 dated November 15, 1946, and submitted by Johns-Manville Sales Corp., 22 East 40th St., New York 16, N. Y.

FLASHLIGHTS

Watertight flashlights, Model F80, Coast Guard Specification Identification Type I, size 2; Model F90, Coast Guard Specification Identification Type I, size 3; Dwg. No. 139–C (no Alt. No.); submitted by Stewart R. Browne Mfg. Co., Inc., 258 Broadway, New York 7, N. Y.

Explosion-proof flashlights; Model F81, Coast Guard Specification Identification Type II, size 2; Model F91, Coast Guard Specification Identification Type II, size 3; Dwg. No. 139–C (no Alt. No.); submitted by Stewart R. Browne Mfg. Co., Inc., 258 Broadway, New York 7, N. Y.

HAND-PROPELLING GEAR FOR LIFEBOATS

Double gear type hand-propelling gear, arrangement Dwg. No. 1857, dated November 4, 1940, revised December 10, 1946, submitted by the Welin Davit and Boat Division of the Robinson Foundation, Inc., Perth Amboy, N. J.

RELIEF VALVES FOR LIQUEFIED INFLAMMABLE GASES

Steel relief valves for liquefied inflammable gases, Type 2680, Dwg. No. 1394–B–CG dated November 1, 1946, manufactured by the Farris Engineering Co., Commercial Ave., Palisades Park, N. J., for various primary service pressures in the sizes listed below:

Inlet size (inches)	Orifice	Free discharge area (square inches)
1½	22 F	0.307
1½	30 H	.785
2	30 H	.785
2	34 J	1.286
2½	34 J	1.286
2½	38 K	1.838
3	38 K	1.838
3	42 L	2.85
4	42 L	2.85
4	44 N	4.34
6	46 P	6.38
6	50 Q	11.045

Dated: February 4, 1947.

(SEAL) J. F. FARLEY,
Admiral, U. S. Coast Guard,
Commandant.

[F. R. Doc. 47-1245; Filed, Feb. 10, 1947; 8:53 a. m.; 12 F. R. 969, Feb. 11, 1947.]

ITEMS SUITABLE FOR MERCHANT MARINE USE

AFFIDAVITS

The following affidavits were received and accepted during the period ending February 15, 1947:

General Regulator Corp., 165 Broadway, New York 6, N. Y., fittings.

Northwest Marine Iron Works, 2516 Northwest 29th Avenue, Portland 10, Oreg., valves and fittings.

FLAME ARRESTERS

The Vapor Recovery Systems Co., Compton, Calif., vertical flame arresters, figures 50, 50A, 50ACU, 50ACCU, 50AN, 50B, 50C, 50CU, 50S, 50SA, 50SB, 50SC, 50SG, drawing No. C-746, alteration A; horizontal flame arresters, figures 53, 53A, 53B, 53C, 53S, 53SA, 53SB, drawing No. C-749, alteration A; satisfactory for use with inflammable or combustible liquids in bulk of grade A or lower on tank vessels subject to the jurisdiction of the Coast Guard.

PRESSURE VACUUM RELIEF VALVES

The Vapor Recovery System Co., Compton, Calif., pressure vacuum relief valve, figure 32D, drawing No. C-748, for use in closed venting systems where the atmospheric opening is protected by a flame screen when carrying inflammable or combustible liquids of grade A and lower grades on tank vessels subject to the jurisdiction of the Coast Guard.

PRESSURE RELIEF AND SPILL VALVES

The Vapor Recovery System Co., Compton, Calif., pressure relief and spill valves, figures 73 and 73A, drawing No. C-642, for use with inflammable or combustible liquids of grade A and lower grades on tank vessels subject to the jurisdiction of the Coast Guard.

CERTIFICATION OF ARTICLES OF SHIP'S STORES AND SUPPLIES

Articles of ship's stores and supplies certificated from January 25, 1947, to February 25, 1947, inclusive, for use on board vessels in accordance with the provisions of Part 147 of the regulations governing "Explosives or Other Dangerous Articles on Board Vessels."

The Penetone Co., Tenafly, N. J., "Navee '42," certification No. 213, January 28, 1947.

Why take long chances to save a few short steps?

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 lists, 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), U. S. 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. An examination of the drawings submitted will be made and, if necessary, tests conducted on such appliances to determine their suitability for marine use.

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	
Auth Electric Co., Inc., 422 East 53d St., New York 22, N. Y.:					
Annunciator, marine, splashproof, 24 volts D. C., Cat. No. 580, drawing No. 710422, alt. 0	x	x			2/12/47
Dayton Manufacturing Co., The, Dayton 1, Ohio:					
Cargo hold lighting fixture C-10837, watertight, 1 100-watt lamp maximum, drawing No. X46D1295, alt. 0	x	x			1/16/47
Ceiling lighting fixture C-12010, nonwatertight, 1 100-watt lamp maximum, drawing No. NY461330, alt. A	x				2/3/47
Bracket lighting fixture B-5250-C, nonwatertight, 1 25-watt lamp maximum, drawing No. 963, alt. F	x				2/4/47
Henschel Corp., Amesbury, Mass.:					
Telegraph, mechanical, with reply, double engine, double face, 9", drawing No. 11-107, alt. 0	x	x	x		1/23/47
Annunciator, gravity drop, manual reset, type I (16 drops), type II (30 drops), 24 volts D. C., drawing No. 50-077-16, alt. 0	x	x			2/4/47
Annunciator, gravity drop, manual reset, type I (30 drops), type II (60 drops), type III (64 drops), 24 volts D. C., drawing No. 50-077-17, alt. 0	x	x			2/4/47
Annunciator, gravity drop, manual reset, 108 drops, 24 volts D. C., drawing No. 50-077-18, alt. 0	x	x			2/4/47
Annunciator, gravity drop, manual reset, 4 drops, 24 volts D. C., drawing No. 50-077-19, alt. 1	x	x			2/4/47
Annunciators, internal units for, types I to X, inclusive, drawing No. 50-077-20, alt. 1					2/4/47
McNab, Inc., Bridgeport, Conn.:					
Salinity indicator, model EE, drawing Nos. 11036, Rev. 3; 11000 REE, Rev. 4, and 14037 sheets 1 and 2, Rev. 0	x	x			2/10/47
Simes Co., The, 22-26 West 15th St., New York, N. Y.:					
Berth light, type LC-12, 1 25-watt lamp maximum, nonwatertight, drawing No. 43518, alt. 12/10/46	x				1/16/47
Ceiling trough lighting fixture, type LC-28, 18 60-watt lamps maximum, nonwatertight, drawing No. 43535, alt. 0	x				1/24/47
Downlight fixture, type LC-2, 1 100-watt lamp maximum, nonwatertight, drawing No. 43543, alt. 0	x				2/12/47
Deck lighting fixture, less guard, type LC-35, 1 60-watt lamp maximum, waterproof, drawing No. 43588, alt. 0	x	x	x		2/12/47
Sterling Bronze Co., Inc., 27-01 Bridge Plaza North, Long Island City, 1, N. Y.:					
Bulkhead lighting fixture, nonwatertight, 1 60-watt lamp maximum, drawing No. 67823-A, alt. 0	x				1/22/47
Ceiling lighting fixture, nonwatertight, 3 60-watt lamps maximum, drawing No. 67817-A, alt. 0	x				1/22/47
Ceiling lighting fixture, nonwatertight, 3 25-watt lamps maximum, drawing No. 67896-A, alt. 0	x				1/22/47
Bulkhead lighting fixture, nonwatertight, 1 25-watt lamp maximum, drawing No. 67820-A, alt. 0	x				1/22/47
Ceiling lighting fixture, nonwatertight, 3 40-watt lamps maximum, drawing No. 67805-A, alt. 0	x				1/22/47
Ceiling lighting fixture, nonwatertight, 1 50-watt lamp maximum, drawing No. 70968-A, alt. 0	x				1/24/47
Bulkhead lighting fixture, nonwatertight, 1 25-watt lamp maximum, drawing No. 77775-A, alt. 0	x				1/24/47
Ceiling lighting fixture, nonwatertight, 4 60-watt lamps maximum, drawing No. 67968-A, alt. 0	x				1/29/47
Bulkhead lighting fixture, nonwatertight, 1 25-watt lamp maximum, drawing No. 64255-A, alt. 0	x				1/29/47
Bulkhead lighting fixture, nonwatertight, 1 25-watt lamp maximum, drawing No. 67827-A, alt. 0	x				1/29/47
Bulkhead lighting fixture, nonwatertight, 2 25-watt lamps maximum, drawing No. 67989-A, alt. 0	x				1/29/47

Merchant Marine Personnel Statistics

MERCHANT MARINE LICENSES ISSUED DURING JANUARY 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	51	54	6	13	----	1	11	47	2	9	34	9	1	6	----	----	4	8	----	----	68	8	----	1	----	----	----	----	----	----
Gulf coast	6	18	----	2	----	2	----	4	----	2	8	3	----	----	----	----	1	----	2	2	21	1	----	----	----	----	----	----	----	----
Great Lakes and rivers	----	1	----	----	14	76	----	----	3	20	----	----	----	1	----	----	----	----	4	8	----	2	----	----	----	----	----	----	----	----
Pacific coast	17	50	3	3	----	----	5	16	----	----	18	4	----	----	----	----	2	3	----	----	32	4	----	----	----	----	----	----	----	----
Total	74	123	9	18	14	79	16	67	5	31	60	16	1	7	----	----	7	11	6	10	121	15	----	1	----	----	----	----	----	----

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	41	6	----	----	----	----	----	----	----	----	----	1	58	95	9	18	----	1	----	1	285	278	563
Gulf coast	16	3	----	----	----	----	----	----	----	----	2	3	4	12	9	10	----	----	----	----	69	62	131
Great Lakes and rivers	----	1	----	----	----	----	----	----	----	----	15	115	----	----	18	27	----	----	----	----	54	251	305
Pacific coast	24	5	----	----	----	----	----	----	----	----	----	1	19	51	1	3	5	5	1	----	127	145	272
Total	81	15	----	----	----	----	----	----	----	----	17	120	81	158	37	58	5	6	1	1	535	736	1,271

ENGINEER OFFICERS

REGION	Chief engineer, steam				First assistant engineer, steam				Second assistant engineer, steam				Third assistant engineer, steam			
	Ocean		Inland		Ocean		Inland		Ocean		Inland		Ocean		Inland	
	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R
Atlantic coast	56	127	4	46	58	39	2	7	78	36	----	3	60	23	----	----
Gulf coast	11	33	1	6	18	10	1	3	34	10	----	----	20	6	----	----
Great Lakes and rivers	1	19	6	45	4	2	6	17	8	4	5	8	2	1	2	1
Pacific coast	14	39	----	4	16	5	----	3	27	6	----	1	34	6	----	----
Total	82	218	11	101	96	56	9	30	147	56	5	12	116	36	2	1

REGION	Motor vessels								Uninspected vessels				Totals		
	Chief engineer		First assistant engineer		Second assistant engineer		Third assistant engineer		Chief engineer		Assistant engineer		Original	Renewal	Grand total
	O	R	O	R	O	R	O	R	O	R	O	R			
Atlantic coast	29	49	19	21	18	8	88	5	1	1	----	----	413	365	778
Gulf coast	6	15	4	4	4	2	32	----	----	----	----	----	131	89	220
Great Lakes and rivers	5	29	4	11	----	----	----	----	----	----	----	1	43	138	181
Pacific coast	15	28	16	8	6	7	9	4	2	3	4	----	143	114	257
Total	55	121	43	44	28	17	129	9	3	4	4	1	730	706	1,436

ORIGINAL SEAMEN'S DOCUMENTS ISSUED DURING JANUARY 1947

Region	Continuous discharge book	Certificate of identity	A. B., green, 3 years [1]	A. B., green, 9 months emergency [1]	A. B., blue, 18 months, 12 months [1]	A. B., blue, 6 months emergency [2]	A. B., blue, 6 months emergency [3]	Lifeboat, 12-24 months [4]	United States Merchant Marine Documents	Q.M.E.D., 6 months	Q.M.E.D., emergency	Radio operators	Certificate of service	Tankerman	Staff officer	Total
Atlantic coast	1	0	55	100	118	2	1	252	1,473	306	95	16	1,171	16	110	3,722
Gulf coast	9	0	8	37	13	0	0	51	627	108	60	5	519	6	9	1,458
Pacific coast	2	9	29	48	85	0	0	141	662	169	53	8	480	2	77	1,765
Great Lakes and rivers	11	0	8	1	43	7	0	42	179	109	29	0	152	5	3	589
Total	23	9	100	186	259	9	1	492	2,941	692	243	29	2,322	29	199	7,534

[1] Unlimited.
[2] Great Lakes, lakes, bays, and sounds.
[3] Tugs and towboats and freight vessels under 500 tons (miscellaneous).
[4] 12 months deck or 24 months other departments.

NOTE.—There were no Panamanian Employment Cards issued.

CREW SHORTAGE REPORTS FROM JANUARY 1 TO JANUARY 31, 1947

These Reports Submitted in Accordance With Navigation and Vessel Inspection Circular No. 34, Dated May 1, 1943

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	15					17	10			2	1	6	3	39
Gulf coast	39	4	7	7	1	31	12	1	2	15	10	35	5	130
Pacific coast	1	1				1	1			1				4
Great Lakes	10			1		9	13			3	1	2	2	31
Total	65	5	7	8	1	58	36	1	2	21	12	43	10	204

WAIVERS OF MANNING REQUIREMENTS FROM JANUARY 1 TO JANUARY 31, 1947

Authority for These Waivers Contained in Navigation and Vessel Inspection Circular No. 31, Dated March 13, 1943 and Navigation and Vessel Inspection Circular No. 37, Dated July 6, 1943

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	374	38	58	1	699	17	88		2	903
Gulf coast	220	22	16	4	446	14	56	2	3	563
Pacific coast	120	5	8		209	11	37			270
Great Lakes										
Total	714	65	82	5	1,354	42	181	2	5	1,736

Merchant Vessel Casualties—Fiscal Year 1946

(July 1, 1945, to June 30, 1946)

TABULATIONS MADE ON BASIS OF CASUALTY CASES CLOSED AS OF NOVEMBER 15, 1946

	Groundings and foundings	Collisions with other vessels	Collisions with service vessels	Collisions with miscellaneous objects	Fires and explosions	Damage to lifesaving equipment	Heavy weather and material damage	Total
Number of casualties [1]	1,043	1,032	392	1,021	318	340	860	5,006
Number of vessels involved	1,043	2,109	796	1,021	318	340	800	6,487
Gross tonnage of United States merchant vessels	5,923,608	9,167,562	3,006,058	5,457,877	1,211,330	2,545,088	5,799,422	33,110,945
Number of inspected vessels	879	1,493	363	892	216	338	825	5,006
Number of uninspected vessels	164	616	433	129	102	2	35	1,481
Types of vessels involved:								
Passenger	9	18	5	34	14	5	19	104
Freight	571	912	211	560	146	248	507	3,155
Tank	254	390	107	165	36	39	186	1,177
U. S. Army or Navy	----	----	387	----	----	----	----	387
U. S. A. T.	4	9	16	6	----	1	3	39
Trooper	19	60	22	38	12	44	73	268
Ferry	6	27	9	23	4	----	6	75
Towing	60	265	20	169	23	1	24	562
Fishing	84	87	7	14	37	1	37	267
Foreign flag	----	199	1	----	----	----	----	200
Miscellaneous	36	142	11	12	46	1	5	253
Persons on board: [2]								
Passengers	23,323	57,651	16,152	58,791	23,417	51,647	86,005	316,986
Crew	34,499	62,350	16,648	36,154	9,151	15,930	38,385	213,117
Value of property involved:								
Vessels	$1,514,213,755	$2,438,819,824	$752,411,950 [3]	$1,413,404,610	$344,006,800	$694,935,200	$1,603,373,880	$8,761,166,019
Cargoes	$209,943,140	$23,192,147	$62,298,619	$159,226,172	$30,555,402	$138,923,289	$164,671,177	$788,809,946
Number of vessels whose value was not reported	7	84	4	4	2	3	7	111
Number of cargoes whose value was not reported	157	188	136	96	22	67	147	813
Damages reported:								
Vessels	$48,585,761	$7,096,426	$1,490,127	$2,548,159	$3,469,290	$510,860	$5,865,744	$69,665,367
Cargoes	$2,194,141	$194,580	$5,527	$80,727	$1,795,240	$6,770	$854,355	$5,041,340
Vessels suffering more than $300 damage	340	946	249	509	212	286	658	3,200
Vessels suffering less than $300 damage	696	879	139	500	103	51	175	2,543
Vessels suffering but not reporting amount of damage	7	86	5	12	3	3	27	142
Cargoes suffering but not reporting amount of damage	10	----	4	----	3	----	----	17
Vessels totally lost:								
Inspected	33	1	1	1	4	----	----	40
Gross tonnage	173,530	339	444	113	4,023	----	----	178,449
Uninspected	37	20	3	8	47	----	----	165
Gross tonnage	7,499	1,726	283	708	1,679	----	----	11,895
Number of casualties due to personnel fault:								
Employed under license or certificate	170	99	16	59	----	24	118	486
Others	79	164	94	97	----	----	56	490
Lives lost in casualties: [4]								
Passengers	22	5	----	2	----	----	----	29
Crew	57	11	[5] 23	3	20	4	7	[5] 125
Assistance rendered by Coast Guard	78	19	----	15	46	----	24	182

[1] In addition to the above listed casualties, 27 inspected vessels with a combined tonnage of 187,768 gross tons were involved in war action casualties. Of these casualties, 3 were the result of direct enemy action (1 by submarine and 2 by air attack) and 24 vessels were mined. The attacks resulted in the loss of 7 vessels with a total tonnage of 82,471 gross tons, and with the loss of 7 of the 1,476 persons carried on all vessels.

[2] Number of personnel, not involving casualty to vessel, who were incapacitated for more than 72 hours was 1,824, and the approximate number of man days lost was 16,088.

[3] Deaths not involving casualty to vessel: Passengers 97; crew 414; stevedores 9.

[4] Includes 16 casualties on Navy vessels.

U. S. GOVERNMENT PRINTING OFFICE: 1947