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Mention of source will be appreciated.

The Merchant Marine Council of the United States Coast Guard

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

CONTENTS

	Page
Council Activities.....	42
Public Hearing to Consider Changes in Regulations.....	42
S. S. <i>Excalibur</i>	45
Radar and Its Effect on Eyesight.....	45
Mailing List for "Proceedings".....	45
Casualty Statistics.....	45
Instructions to Masters of Merchant Vessels in Cases of Vessels and Aircraft in Distress.....	46
Numbered and Undocumented Vessels.....	48
Investigating Units.....	48
International Load Line Convention.....	49
Comparative Rules of the Road and How to Use Them.....	49
Lessons from Casualties:	
Electrocution on Shipboard.....	49
Tag Those Valves.....	49
Boiler Compounds Require Careful Handling.....	49
Appendix:	
Amendments to Regulations.....	50
Navigation and Vessel Inspection Circular No. 10-48.....	53
Equipment Approved by the Commandant.....	53
Merchant Marine Personnel Statistics.....	58
Casualties to Vessels, Fiscal Year 1948.....	60
Cover picture: The S. S. <i>Excalibur</i> in New York harbor, courtesy American Export Lines.	

COUNCIL ACTIVITIES

PUBLIC HEARING TO CONSIDER CHANGES IN REGULATIONS

The Merchant Marine Council will hold a public hearing on March 29 and 30, 1949, in Room 4120, Coast Guard Headquarters, Thirteenth and E Streets, NW., Washington, D. C. The public hearing will commence at 9:30 a. m. The Council will consider all comments of persons having an interest in the revisions summarized below. 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.

Comments on the proposed regulations are invited. Comments may be submitted in writing for receipt, prior to March 29, by the Commandant (CMC), Coast Guard Headquarters, Washington 25, D. C., or presented orally or in writing at the hearing. In order to insure thorough consideration and to facilitate checking and recording of comments, it is requested that each suggested rewording of a proposed regulation be submitted on a separate sheet of letter size paper showing the section number (if possible) and the subject; the proposed change; the reason or basis (if any); and the name, business firm (if any), and address of submitter.

The tentative agenda will include the following:

1. Lights for pusher tows on Great Lakes waters.
2. Applicants for certain certificates of efficiency or service to be able to speak and understand the English language and examinations to be conducted only in the English language.
3. Cancel the exemption regarding inability to read or write from requirements for applicant for a motorboat operator's license.
4. Electrical control of ventilation systems.
5. Specification for lifeboat winches.
6. Specification for davits.
7. Specification for mechanical disengaging apparatus, lifeboats.
8. Specification for hand-propelling gear, lifeboats.
9. Specification for lifeboats.
10. Specification for bulkhead panels.
11. Specification for incombustible materials.
12. Specification for calcium water lights.
13. General Rules and Regulations for Vessel Inspection, Ocean and Coastwise.

14. General Rules and Regulations for Vessel Inspection, Great Lakes.

15. General Rules and Regulations for Vessel Inspection, Bays, Sounds, and Lakes Other Than the Great Lakes.

16. General Rules and Regulations for Vessel Inspection, Rivers.

17. Marine material specifications.

18. Boiler tubes.

19. Relief valves for heat exchangers.

20. Piping systems, pumps, refrigeration machinery, and fuel tanks.

21. Test drillings of boilers in service.

LIGHTS FOR PUSHER TOWS ON GREAT LAKES WATERS

It is proposed to amend the "Pilot Rules for the Great Lakes and Their Connecting and Tributary Waters and the St. Marys River" by adding a new section 90.19a, which will specifically prescribe the lights for tows of one or more barges, canal boats, scows, or other vessels of nondescript type not otherwise provided for when being towed by being pushed ahead of a steam vessel. The proposed regulation will require the same lights for pusher tows on the Great Lakes as are now prescribed for pusher tows on the western rivers. The reason for proposing this regulation is because of the large number of pusher tows arriving on Great Lakes waters from western rivers. For some years the Sanitary Canal and Chicago River east of Lockport, Ill., have been considered as tributary waters of the Great Lakes.

The lights to be required for pusher tows are an amber light at the extreme forward end of the tow and at or as near the centerline of the tow as practicable and colored side lights, with inboard screens, so placed that they mark the tow at its maximum projection to starboard and port. The present Pilot Rules for the Great Lakes do not specifically prescribe the lights for pusher tows.

ENGLISH LANGUAGE REQUIREMENTS

To improve safety of life at sea, it is proposed to either amend or add new regulations to the requirements for able seamen, lifeboatmen, qualified members of engine department, and tankermen which will require applicants for such certificates to be able to speak and understand the English language, and that any examination conducted in connection therewith shall be given only in the English language. The sections to be changed are 12.05-3, 12.05-9, 12.10-3, 12.10-5, 12.15-3, 12.20-1, and 12.20-5 in Part 12, Certification of Seamen,

of the Coast Guard pamphlet entitled "Rules and Regulations for Licensing and Certificating of Merchant Marine Personnel." The proposed changes will require all applicants for certification in other than entry ratings to be able to speak and understand the English language.

APPLICANTS FOR MOTORBOAT OPERATORS' LICENSES

At present an applicant for a motorboat operator's license is not disqualified by inability to read or write if he is qualified in all other respects and possesses extensive experience in the operation of small vessels. To promote safety, it is proposed to cancel such an exemption because many written regulations, recommended practices, instructions, safety hints, etc., are being distributed to motorboat operators for their guidance. An operator's inability to read may result in his ignorance of practices essential to safety. The proposed amendment will cancel subparagraph 10.20-5 (c) (1) in the pamphlet entitled "Rules and Regulations for Licensing and Certificating of Merchant Marine Personnel."

ELECTRICAL CONTROL OF VENTILATION SYSTEMS

It is proposed to amend section 144.25 (j) in the pamphlet entitled "Construction or Material Alteration of Passenger Vessels of the United States of 100 Gross Tons and Over Propelled by Machinery" by removing the present requirement that an emergency control station shall be located in the fire control room or wheelhouse. It is proposed to require all electrical ventilation systems to be provided with remote control means for stopping the motors in case of fire or other emergency. For the machinery space ventilation there shall be provided a control located in the passageway leading to but outside of the space; for all other ventilation systems the requirements are the same as before. The reasons for proposing this change are that the present requirements have specific reference to the control of machinery space ventilation from the fire control room or wheelhouse, which may prove to be hazardous, and further that such location of said control is unnecessary. This proposed change is based on suggestions from the marine industry.

SPECIFICATIONS

In keeping with present Coast Guard policies it is proposed to publish separate specifications for calcium carbide-calcium phosphide type self-igniting water lights, lifeboat winches,

davits, lifeboat mechanical disengaging apparatus, lifeboat hand-propelling gear, lifeboats, bulkhead panels, and incombustible materials. These specifications cover primarily the manufacturing or building of equipment requiring approval of the Commandant before being used on merchant vessels. These specifications embody requirements previously published as General Rules and Regulations for Vessel Inspection as well as many administrative requirements never previously published in regulation form. Tentative drafts of these specifications were sent to various manufacturers interested in the equipment covered and all suggestions received were considered and incorporated in the proposed specifications where possible.

The specification for the calcium carbide-calcium phosphide type self-igniting water lights sets forth the requirements for materials, workmanship, construction, and performance as well as marking, packing, procedure for approval, and sampling inspections and tests conducted at the plant of the manufacturer. It is intended to establish a minimum requirement for self-igniting water lights and facilitate the manufacture and inspection of such equipment.

The specifications for lifeboat winches, davits, lifeboat mechanical disengaging apparatus, lifeboat hand-propelling gear, and lifeboats are for new construction. They revise and bring up to date present requirements. These specifications contain general requirements; construction; capacity; inspection, and testing procedures; and approval procedures. The specification for lifeboats includes construction requirements for steel oar-propelled lifeboats, steel hand-propelled lifeboats, steel motor-propelled lifeboats with and without radio cabin, aluminum oar-propelled lifeboats, aluminum hand-propelled lifeboats, aluminum motor-propelled lifeboats, wood oar-propelled lifeboats, wood hand-propelled lifeboats, and wood motor-propelled lifeboats. All these specifications are in accord with the provisions of the International Convention for the Safety of Life at Sea, 1948, with the exception of the specification for lifeboats. In the specification for lifeboats the requirement regarding a compression ignition engine for motor lifeboats on certain passenger vessels has not been included.

The specifications for bulkhead panels and incombustible materials are minimum requirements and are intended primarily for manufacturers. The requirements for the use of approved bulkhead panels and incombustible materials are already contained in the pamphlet entitled "Con-

struction or Material Alteration of Passenger Vessels of the United States of 100 Gross Tons and Over Propelled by Machinery." These specifications contain the procedures presently used for the approval of such materials but which have never been published in regulation form. These specifications are in accord with the provisions of the International Convention for the Safety of Life at Sea, 1948. The items included are materials, inspection and testing requirements, and procedures for approval.

GENERAL RULES AND REGULATIONS FOR VESSEL INSPECTION

With the establishment of separate specifications it is necessary to amend the regulations by deleting all material of a specification nature. The changes proposed in the pamphlets entitled "General Rules and Regulations for Vessel Inspection, Ocean and Coastwise," "General Rules and Regulations for Vessel Inspection, Great Lakes," "General Rules and Regulations for Vessel Inspection, Bays, Sounds, and Lakes Other Than the Great Lakes," and "General Rules and Regulations for Vessel Inspection, Rivers," are primarily editorial in nature and delete the specification requirements from regulations intended primarily for operating use. In order to accomplish the transfer of specification material to separate specifications, it has been necessary to change the wording of the regulations but not necessarily the operating requirements.

It is also proposed to incorporate into the regulations requirements regarding stowage of buoyant apparatus, and pistol-projected rocket type line-throwing appliances; change requirements for steering apparatus on new vessels and replacements on existing vessels to follow the rules of the American Bureau of Shipping; delete references to various classes of lifeboats inasmuch as lifeboats other than class 1A are no longer constructed or approved; delete requirement for manufacturers to submit 60 copies of specifications and/or blueprints of all approved items of equipment since such requirements vary depending upon the item of equipment; add a requirement for lifeboat hand-propelling gear for vessels navigating the Great Lakes, bays, sounds, and lakes other than the Great Lakes, and rivers; and increase the present weight from 140 to 165 pounds as the average weight per person when conducting tests of lifeboats at annual inspections.

MARINE MATERIAL SPECIFICATIONS

In accordance with suggestions from boiler tube manufacturers, it is

proposed to revise several specifications in part 51 of the pamphlet "Marine Engineering Regulations and Material Specifications" in order to bring these material specifications into conformance with A. S. T. M. standard specifications. Specifications in subparts 51.28 and 51.31 presently contain boiler tube wall thickness requirements as specified in A. S. T. M. standards, which it is proposed to cancel because they are not required for the relatively short marine boilers. It is, therefore, proposed to delete paragraphs 51.28-1 (b) and 51.31-1 (b).

In compliance with the requests from the marine industry to permit higher temperatures for alloy steel tubes and pipe material, it is proposed to increase the maximum temperature of this material from the present 1,000° F. to 1,200° F. To provide for tube and pipe material having satisfactory creep properties at this maximum temperature two new A. S. T. M. specifications have been added to subparts 51.31, Seamless Carbon and Alloy-Steel Boiler and Superheater Tubes, and 51.34, Seamless Carbon and Alloy-Steel Pipe; identified as specifications designated A213-46 and A158-47T. To accomplish this, it is proposed to delete the present specifications in subparts 51.31 and 51.34 and incorporate therein revised specifications containing these two A. S. T. M. specifications.

In order to avoid repetition of requirements, it is also proposed to delete from part 51 certain requirements contained in the proposed revision of part 55. Sections 51.46-1, 51.49-1, 51.58-1, and 71.56-1 will be amended.

BOILER TUBES

It is proposed to revise paragraph 52.55-10 (a), regarding boiler tube computations, by prescribing maximum pressure and temperature limitations on grade A seamless material manufactured in accordance with the present requirements in subpart 51.25 and by limiting the maximum temperature to 850° F. for carbon steel tubes manufactured in accordance with the requirements in the proposed subpart 51.31. These changes have been made to clarify the requirements for the determination of the maximum allowable pressure and minimum thickness of boiler and superheater tubes. The table for the maximum allowable stresses for tubing has been revised to include the new tubing material as set forth in the proposed specifications in subpart 51.31. These changes are necessary to permit the use of boiler tube materials of higher pressures as requested by the marine industry.

In order to avoid repetition of requirements, it is also proposed to

change the requirements for safety valves by transferring requirements pertaining to boiler and safety valve piping to the proposed revision of part 55. These proposed changes will delete sections 52.65-15 (f), 52.70-15, and 52.70-20 as well as revise the present regulations in sections 52.70-25 and 52.70-30, regarding feed valves and blow-off valves.

UNFIRED PRESSURE VESSELS

It is proposed to change the requirements in section 54.01-40, regarding periodic leak tests at prescribed pressure for refrigerating units, gas condensers and receivers, evaporators, and direct expansion cooling coils. As the result of field inspections, this requirement appears to be impracticable for existing refrigeration installations originally designed for pressures substantially below the test pressures now required. The application of the required test pressures may cause damage to compressors and pressure regulating devices which cannot be completely isolated due to the piping arrangement. It is, therefore, proposed to delete this section and transfer the requirements to a new subpart in the proposed revision of part 55 and to make the test requirements applicable only to new installations.

The manufacturers of heat exchangers have indicated that section 54.01-30 requires excessively large size relief valves to be fitted to heat exchangers designed with very low shell pressures and much higher tube or coil pressures. They proposed that this section be amended by inserting the standard flow formula for determining the discharge of water through an orifice based upon the discharge through one ruptured tube employing a coefficient of discharge of 0.62 for a sharp edged orifice, under velocity head equivalent to the difference in pressure between the coil and shell relief valve set pressures. The maximum discharge capacity based upon the conditions enumerated would permit a relief valve of reasonable size.

PIPING SYSTEMS, PUMPS, REFRIGERATION MACHINERY, AND FUEL TANKS

It is proposed to revise the present regulations in part 55 regarding piping systems by transferring to it certain regulations pertaining to safety valve escapes, feed water and blow-off piping from other parts. A table of maximum pressures and temperatures for ferrous and nonferrous pipe and plate flange materials has been included in order to facilitate the selection of proper materials for pressure and temperatures.

The modified Barlow formula employed by the A. S. M. E. and A. S. A. codes has been substituted in lieu of

the present pipe formula in section 55.07-5 for determining pipe wall thickness which results in a lower wall thickness than presently required. Higher stresses for nonferrous material below 400° F. and lower stresses above 400° F. are permitted, based on stresses allowed by the A. S. M. E. code for copper and copper base alloy pipe. These changes are the result of requests from industry for lower pipe and tube wall thicknesses than now presently required by the regulations.

Bolting material stresses have been increased 25 percent and the table of gasket materials and contact facings revised in accordance with current A. S. M. E. code requirements.

To eliminate unnecessary repetition many of the paragraphs in the present regulations have been rearranged and placed under more appropriate section headings. In addition a new section covering required tests for the more important piping systems and tests presently required have been combined to provide for a clear understanding of the requirements. Each of the main piping systems have been set up separately and requirements previously contained in several sections have been consolidated.

A new subpart 55.13 covering installation requirements for refrigerating machinery designed and installation test pressures for pressure vessels and piping has been proposed in order to bring these requirements into substantial agreement with the Rules of the American Bureau of Shipping. The installation requirements for refrigerating machinery presently contained in section 57.05-20 will then be canceled.

A new subpart 55.16, covering the construction, installation, and testing requirements for independent internal combustion engine fuel tanks for passenger vessels, tank vessels, and cargo vessels, has also been included. These proposed amendments revise the present regulations, but in general are relaxations of existing requirements.

TEST DRILLINGS OF BOILERS IN SERVICE

It is proposed to amend section 57.10-15, regarding drilling of shells in tests and inspections of boilers in service by making the mandatory drilling of shells every 10 years apply only to scotch, western river, or other fire tube or flue boilers.

S. S. EXCALIBUR

The cover picture shows the S. S. *Excalibur*, the first of four new vessels for the American Export Lines. She is 473 feet, 1 inch in length, 66 feet in breadth, of 9,644 gross tons, and of 14,893 displacement tons. She has steam turbine drive, oil fired boilers,

and generates 8,000 horsepower. The sea speed of this vessel is 17 knots. The maximum capacity of passengers is 125. She will operate between New York and Mediterranean ports. The vessel was constructed and refitted by the Bethlehem Steel Co., Shipbuilding Division, and contains many special features. She is built with a cargo capacity of 4,400 tons in five holds and has a refrigerated space of 30,000 cubic feet for handling perishable cargo.

RADAR AND ITS EFFECT ON EYESIGHT

From time to time, the Coast Guard, as the Government agency principally concerned with radar and its use by private industry and commerce, receives requests for information regarding the effects on eyesight of watching a radar cathode ray tube for prolonged periods.

This matter was carefully investigated by the armed forces and other agencies working with radar in the early years of the war, as well as were other suspected effects of radar frequencies on the human body. It was determined that radar is harmless to operating personnel in all respects, barring the well known dangers inherent in careless use of any electrical apparatus.

Specifically, with regard to possible damage to eyesight from prolonged viewing of the indicator tube, it was determined in 1943 by the Yerkes Laboratory of Primate Biology at Orange Park, Fla., that no serious or permanent damage to the eye can be attributed to radar. The Yerkes Laboratory tests showed that operators who remained at the scope 2 or 3 hours or more sometimes suffered ocular fatigue, eye strain, or headaches. However, these effects were all temporary, resulting only from overuse of the eyes, and are the same as those experienced by many individuals who read a great deal, or impose strain on their eyes in any one of numerous and natural ways. In addition, there was no evidence to indicate that human eyes must undergo a period of adaptation to attain visual efficiency with the use of the scope. Tests showed that there was no significant differences in visual efficiency between a group of 58 veteran operators (18 months' experience or more) and a group of 52 short-term operators (2 months' experience or less).

In the years during which the Coast Guard has made extensive use of radar, there have been no recorded instances of impairment of vision of Coast Guard personnel resulting from viewing radar indicator scopes, and those with much experience in radar operation have long since ceased to worry about their eyes.

CASUALTY STATISTICS

A compilation of the casualty statistics for the fiscal year 1948 (July 1, 1947, to June 30, 1948) is reprinted in tabular form on the back cover of this issue. This tabulation is made on the basis of casualty cases closed as of September 30, 1948.

The statistical record shows a slight increase in the number of casualties over the preceding year. The number of casualties for the fiscal year 1947 was 2,612 as compared with 2,650 for 1948. It is interesting to note, however, that there was a drop in the number of casualties occurring to inspected vessels with 2,340 vessels involved in 1947 as compared with 2,308 for 1948.

The number of lives lost in casualties totaled 254, an increase over last year. There were only 2 passengers on inspected vessels who died as a result of casualties to vessels. The number of deaths not involving casualty to vessels was 66 passengers, 369 crew members, and 13 stevedores. There were 492 persons incapacitated for more than 72 hours by injuries not involving casualty to vessels.

MAILING LIST FOR "PROCEEDINGS"

It is required by the Regulations of the Joint Committee on Printing, dated July 1, 1948, that the mailing list for the Proceedings of the Merchant Marine Council be circularized to determine whether this publication is still desired by the persons to whom it is addressed.

To all addressees on the mailing list for the Proceedings a card will be sent requesting an affirmative reply, to be returned to the Commandant (CMC), United States Coast Guard, by no later than May 31, 1949. If you desire to continue to receive the Proceedings and you do not receive a card by May 1, 1949, it is suggested that you send a card to the Commandant (CMC), United States Coast Guard Headquarters, Washington 25, D. C., setting forth the following information:

- (a) Quantity desired.
- (b) Quantity now received.
- (c) Name and address to which the Proceedings are now sent.
- (d) The new postal address if different from that to which the Proceedings are now sent.
- (e) Name of firm, company, corporation, or individual requesting the Proceedings.

If no affirmative reply requesting continuance is received by May 31, 1949, the addressee's name will be removed from the mailing list.

INSTRUCTIONS TO MASTERS OF MERCHANT VESSELS IN CASES OF VESSELS AND AIRCRAFT IN DISTRESS

The rendering of assistance to vessels in distress is a tradition among seamen. The pages of maritime history record the courageous deeds performed in upholding that tradition. The increasing volume of transoceanic flights by aircraft means that masters of merchant vessels may be called upon to assist distressed aircraft. When such a call is received the master may ask: "What is the proper procedure to follow?" This article is intended to answer that question. In addition, this article contains information about rendering assistance to surface vessels in distress.

Today transoceanic crossings by air are being made at an ever increasing rate. Overwater military exercises also add to the number of overwater flights. This increasing rate of transoceanic flights points to new and difficult problems of search and rescue.

Rescue facilities may be divided into two classes, primary and secondary. The primary ones are those professionally trained and constantly ready to undertake rescue missions as a primary duty. These include the United States Coast Guard, the United States Air Force Air Rescue Service, the Royal Canadian Mounted Police (Marine Section), those groups or squadrons or units of the United States Navy and the Royal Canadian Air Force specifically organized and designated as rescue units, and in a slightly lesser sense the fire and rescue parties of men-of-war and military bases. The secondary sources of help for rescue missions are organizations planned for rescue but only partially trained in the professional sense; tactical squadrons of domestic and foreign air forces and navies, local and state police, the Civil Aeronautics Administration, the Federal Communications Commission, Commercial Marine Radio, groups of amateur radio stations, and the domestic and foreign airlines and domestic and foreign shipping lines. The last two are probably the most productive in point of work accomplished. The airline pilots report vessels showing flares or other signals of distress, occasionally drop penicillin, insulin, or other medicines to surface ships which have critical medical cases on board, intercept and relay distress calls and otherwise assist in searches and assistance. The surface ship creates the largest rescue load but also contributes in greatest measure to direct rescue. The distressed mariner or transoceanic flyer

wants first to have a firm deck under him and then receive medical attention as necessary. Dropping things to him from the sky solves a very small part of his problem. A rescue seaplane can land and pick him up today only under the most favorable conditions of weather and sea.

When a distress message is received at a Coast Guard Rescue Coordination Center, much rescue machinery is set in motion very quickly. An All Ships message is sent to alert any vessels that may be in a position to assist. Radio nets are alerted to monitor the frequency on which the distress is known to be working or of the unit relaying for him. Direction Finding facilities as available are set up to attempt to get a double check on his position. Coast Guard cutters and aircraft are started to him as soon as practicable. A check is made on the Ships Plot to find what vessels are nearest and which can assist most effectively and economically and requests are made to their owners that they be diverted from their courses as necessary. The Navy is queried as to Naval ships which may not be carried on the plot board. The Air Force Air Rescue Service is alerted for possible assistance. Then the Rescue Controller makes a quick résumé of ships and planes available if the job turns into a difficult search and rescue. The Aeronautical Section has now forecast immediate and future sea conditions in the area concerned and types of equipment—if the job promises to be long or difficult—can be decided upon.

The master of a merchant ship in the vicinity of the vessel or aircraft in distress will materially further the rescue operation if he finds the vessel or aircraft quickly. Radio direction finder and radar help here. If it is a surface vessel in distress, there will be few problems other than those of sound seamanship. The Coast Guard has found the large inflated rubber raft very handy to lay alongside of a vessel in rough sea where a ship's boat might well be smashed. By the use of the rubber raft, people can sometimes be taken from a foundering vessel in a rough sea with less hazard than with the old method of attempting to lie close under power or alongside on a sea painter, with a wood or metal boat.

If the distress call is from a transoceanic passenger plane, the rescuing merchant vessel has a number of new problems:

1. The ditching, i. e., crash landing in the water, will be violent at the very best, with consequent probability of injury and shock to passengers and crew. Suppose a distressed aircraft is coming to you. You picture him landing in the sea like a gull. The gull flies at 20 knots and lands at 5. The airliner lands closer to 100. Try to visualize a ship's boat with cellophane bottom coming into that sea you are looking at at 100 knots. The aircraft may float for hours; it may sink in several minutes.

2. Airborne rubber dinghys do not give the survivors nearly as good protection from the sea as ship's lifeboats.

3. The dinghys are much smaller and have much lower silhouettes than lifeboats and so are harder to find.

4. Extensive floating debris—sometimes even the abandoned hulk itself—usually present when a ship burns, founders, or is stranded, are not present to guide search planes and ships to survivors of aircraft ditchings.

5. The limitations of weight in aircraft baggage allowances, stowage, and the terrific haste with which passengers must expect to abandon a ditched aircraft, point to limited protective clothing for survivors.

6. The round rubber dinghy cannot be rowed or sailed even the hundred miles or so that might make land or put it in a steamer lane.

7. The awkwardness of the round dinghy complicates the problem of rescue if the sea is rough. They do not tow well. They cannot be brought alongside on a sea painter under some control like a ship's boat, but will probably be slammed violently into the ship's side, spilling survivors into the sea. (The military type rubber dinghy is shaped like a boat. The air transport type is normally round.)

8. And finally there will not likely be any seamen in the dinghys who can cooperate in their own rescue in simple things like bending lines, rigging bridles to relieve tow pads, heaving lines, fending off with skill, etc.

In all rescue problems it is important to get first things first. Some of these are not obvious to the inexperienced.

enced and in the stress and hurry of a rescue others may be overlooked. It is easy to oversimplify a rescue mission in planning; to assume that this or that phase of the rescue does not need your care or assistance. Recently a ship's commander stated: "I won't maneuver to work up a lee for a ditching plane because I don't think he'd hit it anyway, and I might not be in a position to get to him quickly." This was a failure to get first things first. If the pilot kills everybody in the landing, the rescue ship won't save anyone anyway. In ignorance this captain assumed that landing was easy. The records show that many ditching aircraft have killed or injured all or large proportions of the persons aboard on the landing.

The following instructions have been prepared by the Office of the Commander Eastern Area, United States Coast Guard, for the guidance of surface vessels facing the problem of rescue of ditching aircraft. It is believed that a wide dissemination of these instructions to masters will contribute materially to safety of life at sea and to the peace of mind of the conscientious master:

INSTRUCTIONS FOR RESCUE OF DISTRESSED AIRCRAFT PERSONNEL AT SEA

Finding the Aircraft

1. Establish firm communications. You can use *any* frequency in distress cases.

2. Transmit on a frequency between 200 and 1,750 kilocycles for the plane to home to you. If you cannot be sure the plane knows what frequency you will use to home him in, use 500 kilocycles. If you can, use a frequency liable to less interference. Make your call frequently so the plane is sure he is homing on the right ship. Make twenty second dashes. **EXAMPLE: "AUOD ----- AUOD ----- AUOD"**.

3. Track the distressed plane with your own DF if possible. If he cannot transmit on a frequency within your DF band, ask him to hook his Gibson Girl to his antenna and crank. The Gibson Girl is an emergency transmitter that transmits simultaneously on 500 kilocycles and 8280 kilocycles; power is applied through a hand crank. Many airliners cannot transmit below 2900 kilocycles with regular equipment. If you get bearings send him frequent vectors for comparison with his own. Mark each one either true or magnetic. **A VECTOR IS THE COURSE THAT THE PLANE HAS TO FOLLOW TO REACH YOUR SHIP, DISREGARDING DRIFT, ETC.** In other words, a vector is your bear-

ing from the plane. **Example: VECTOR 284 TRUE 1410Z.**

4. Get the distressed plane in your radar screen when and if you can and hold him.

5. Get his LORAN readings and plot his track as practicable.

6. Long before you estimate he will see you, make black smoke in the daytime, or rotate a powerful searchlight around the sky at night.

7. Always keep in mind that with each engine he loses, he loses a generator too. As his batteries go down he may hear you after he can't transmit. Transmit to him blind if necessary until you are *sure* he can't read you.

8. Head on an intercepting course for him from the first distress signal. He may not be able to reach you **UNLESS** you are proceeding into appreciable worse seas and he states he is sure he can reach you. If you know the seas are much easier an hour or so steaming from your position, ask the distressed pilot if he desires you to proceed to the area of the easier landing condition.

Assisting the Distressed Aircraft To Land

1. Give him the force and direction of the surface wind. Use degrees and knots and the word "From". **Example: SURFACE WIND FROM 149 TRUE 15 KNOTS.** **NOT** "Wind south southeast three-quarters East force four," which doesn't tell a pilot quickly and for sure either the approximate direction of the wind or its velocity.

2. Describe the sea conditions as clearly and accurately as possible. **Example: LONG SWELL FROM 280 TRUE FIVE FEET HIGH FIVE HUNDRED FEET BETWEEN CRESTS MOVING AT THIRTY KNOTS STEEP WIND DRIVEN SEA FROM NORTH TRUE FOUR FEET HIGH EIGHTY FEET BETWEEN CRESTS MOVING AT TWELVE KNOTS.** Throw over a life jacket and clock the time between passage of two successive swells under it. Five times the square of this time in seconds equals roughly the distance in feet between crests; three times the time in seconds equals roughly the speed of the swell in knots. Use the same formula for the wind driven sea. Estimate sea or swell height—trough to crest—carefully by eye.

3. To make a lee, circle with hard-over rudder at high speed. After completing three or four circles the area inside the ships turning circle should be considerably smoother than the area outside. Continue the circle until the plane has landed unless the pilot asks you to stop or take some particular heading. Use oil with judgment. Cold bunker or diesel oil should not create a fire hazard but it is some-

times almost useless. It is most worth while for easing a short hard wind-driven sea. Your turning circle creates an area big enough for a good ditching; the plane should travel less than a thousand feet after hitting the water. A smart pilot will elect to land with the most formidable sea on his beam and with some wind ahead if possible.

4. **NIGHT CONDITIONS.** After proceeding as above, attempt to mark the circle at four equidistant points with floating lights if possible. The weather marker should be pitched off the fantail and the leeward one from the bow to allow for drift. Try to put these lights down as shortly before the landing as possible to minimize their drifting away or going out. Ask the pilot if he wants the searchlight for landing. If he says "yes," maneuver into position to throw the beam on the water so it hits the plane about one point on the starboard quarter as he lands. The pilot sits on the left hand side of the cockpit and this way he is not blinded. Don't point the searchlight at the plane's cockpit (bow) until the plane is on the water. The result desired is to illuminate the sea for landing without blinding the pilot. The light should come from abaft the plane's beam. If you blind the pilot he may lose control of the plane.

Rescue of Personnel

1. Use lots of lookouts. Try to have a responsible lookout kept over each boat and each raft while it is in the water. Have spare lookouts ready to assist if people in the water get scattered and to relieve difficult stations.

2. Have a boat ready to go over the side *quickly*. Work as fast as you can. The weak or injured are likely to die from exposure. Man the boat with a smart crew. Use a lively pulling boat or a smart handling power boat if possible. In addition to the usual boat box, the following gear will be helpful:

(a) A five- or seven-man dinghy (rubber). Tow astern of boat.

(b) A dozen exposure suits.

(c) About 20 pieces of small line (9 thread is heavy enough) each 8 fathoms long, with a bowline on a bight on one end, and each coiled separately.

(d) Several spare boat hooks.

(e) Several spare kapok life preservers.

(f) A dozen blankets.

(g) Two fire axes.

(h) Two pairs of pliers.

(i) One bolt cutter.

(j) Two pairs horsehide gloves.

(k) Four 5-cell flashlights.

The rubber dinghy can be laid alongside a plane when a boat would

sink it quickly. The exposure suits, spare life preservers, and blankets will be useful in rescuing and warming up especially weak or exhausted persons. The boat may well be away from the ship for several hours and rescued people should be kept as warm as possible in the boat. The pieces of 9-thread will be useful to toss to men in the water to drag them into the boat, for men to wear who are going over the side to help especially weak survivors, for bending onto rafts to tow, etc. The fire axes, pliers, bolt cutters, horsehide gloves, and flashlights will be useful if it is necessary to cut or smash an entrance into the fuselage of the plane to get someone out who is caught.

3. The area of the landing should be buoyed to fix a central point for search if some persons are thought to be lost in the vicinity.

4. Rescue or cargo nets should be rigged over the side and if available, volunteers should be ready to go over the side on safety lines to help survivors to and up the nets. Boats may be swamped or smashed against the side in a sea or rattled survivors may try to swim to the ship.

5. Care should be taken not to maneuver the ship into a position where the plane and ship will drift together. Check relative drift carefully and approach the plane from a bearing that will assure no closing on the plane when the ship has no way on. This cannot be emphasized too much. Planes are very fragile and a ship or ship's boat drifting into one in a sea may open compartments that are contributing substantial buoyancy and cause the wreck to sink very quickly. It is important to remember that the plane is drifting faster when plane and ship are on separate wind lines, but when the ship gets the plane close in her lee she blankets the wind from the plane and closes on her very fast. Many planes have been severely damaged this way and rescue efforts blocked or greatly complicated.

6. The number of people in the plane should have been ascertained before she went into the water and all accounted for before search and rescue operations are abandoned. An apparently drowned man floating in his life preserver can sometimes be resuscitated.

Closing the Search

1. When you are satisfied that all hands are accounted for or beyond chance of rescue, send a message to the United States Coast Guard with an unequivocal statement to that effect so that planes and ships that are racing to assist or preparing for searches on the morrow may be released.

NUMBERED AND UNDOCUMENTED VESSELS

The table below gives the cumulative total of numbered but undocumented vessels in each Coast Guard district by customs ports for the quarter ending December 31, 1948. Generally speaking, undocumented vessels are those machinery-propelled vessels of less than 5 net tons engaged in trade which by reason of tonnage are exempt from documentation, and those motorboats or motor vessels of less than 16 gross tons which are not subject to documentation as yachts, together with motorboats and motor vessels used exclusively for pleasure purposes which are 16 gross tons or over and not so documented. 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	14,780
	(1) Portland, Maine	10,616
	(2) St. Albans	2,782
	(5) Providence	4,101
		32,279
2 (St. Louis)	(45) St. Louis	17,241
	(12) Pittsburg	2,646
	(34) Pembina	78
	(35) Minneapolis	7,079
	(40) Indianapolis	4,087
	(42) Louisville	3,863
	(43) Memphis (part)	7,998
(44) Vacant (Des Moines)	108	
(46) Omaha (part)	481	
	43,611	
3 (New York)	(10) New York	46,236
	(6) Bridgeport	8,481
	(11) Philadelphia	20,936
	75,653	
5 (Norfolk)	(14) Norfolk	15,451
	(13) Baltimore	21,704
	(15) Wilmington, N. C.	8,170
	45,325	
7 (Miami)	(18) Tampa (part)	21,726
	(16) Charleston	1,799
	(17) Savannah	3,191
	(49) San Juan	386
	(51) St. Thomas	69
	27,171	
8 (New Orleans)	(20) New Orleans	18,931
	(18) Tampa (part)	830
	(19) Mobile	7,600
	(21) Port Arthur	3,869
	(22) Galveston	10,058
	(23) Laredo	1,910
	(24) El Paso	6
(43) Memphis (part)	76	
	43,280	
9 (Cleveland)	(41) Cleveland	13,037
	(7) Ogdensburg	6,570
	(8) Rochester	8,570
	(9) Buffalo	8,116
	(36) Duluth	4,066
	(37) Milwaukee	12,381
	(38) Detroit	28,295
(39) Chicago	7,909	
	80,820	
11 (Long Beach)	(27) Los Angeles	8,702
	(25) San Diego	1,738
	(26) Nogales	79
	10,519	
12 (San Francisco)	(28) San Francisco	40,921
	(47) Denver	
	40,921	
13 (Seattle)	(30) Seattle	31,718
	(29) Portland, Oreg.	9,462
	(31) Juneau	6,522
	(33) Great Falls	1,025
(46) Omaha (part)		
	48,727	
14 (Honolulu)	(32) Honolulu	4,080
	4,080	
Grand total		440,476

INVESTIGATING UNITS

Coast Guard Merchant Marine Investigating Units and Merchant Marine Details investigated a total of 585 cases during the month of December 1948. From this number, hearings resulted involving 17 officers and 63 unlicensed men. In the case of officers, no license was ordered revoked; 5 were suspended; 9 were suspended with

probation granted; 1 was voluntarily surrendered, no hearing, was closed with admonition; and 2 cases were dismissed. Of the unlicensed personnel, 20 certificates were revoked, 13 were suspended, 21 were suspended with probation granted, 5 were voluntarily surrendered, 5 were closed with admonition, and 5 were dismissed after hearing.

COMPARATIVE RULES OF THE ROAD AND HOW TO USE THEM

The pamphlet Comparative Rules of the Road and How To Use Them, CG-143, dated 1946, should not be followed as authority of the differences in the various Pilot Rules. The requirements set forth in this pamphlet were extensively revised by the provisions of Public Laws 448 and 544, Eightieth Congress, as well as numerous regulatory changes published in the Federal Register and the Proceedings during the year 1948. The numerous changes made in the various Pilot Rules have been incorporated into the texts of the pamphlets entitled Pilot Rules for the Western

Rivers and the Red River of the North, Pilot Rules for the Great Lakes and Their Connecting and Tributary Waters and the St. Marys River, and Rules To Prevent Collisions of Vessels and Pilot Rules for Certain Inland Waters of the Atlantic and Pacific Coasts and of the Coast of the Gulf of Mexico. The Pilot Rules for the Great Lakes and the Pilot Rules for Certain Inland Waters are in the process of being printed and will be available for distribution within approximately 90 days.

While the pamphlet Comparative Rules of the Road and How To Use

Safety is always in season.

Them contains many requirements still in effect, this pamphlet should no longer be used as authority for navigating the various waters of the United States. It is not presently possible to revise and correct this pamphlet or issue a supplement showing all the changes and corrections necessary to bring it up to date.

INTERNATIONAL LOAD LINE CONVENTION

Honduras is a party to the International Load Line Convention, signed at London on July 5, 1930, according to information received from the Department of State. Honduras acceded to the convention on June 10, 1948, effective September 10, 1948.

LESSONS FROM CASUALTIES

ELECTROCUTION ON SHIPBOARD

Recently an engineer on a T2-SE-A1 vessel was killed by an electric shock while replacing the contact fingers of the starting relay in the starboard forced-draft blower-control panel. Before working on this panel, he had opened the circuit breaker on the main switchboard as well as the panel switch and evidently assumed that this rendered the panel safe to work on. However, on this type of vessel, there are indicating lights on the switchboard whose circuits are completed through auxiliary contacts within the respective motor controller; therefore, opening a line switch within the controller fitted with such an auxiliary contact or opening the disconnecting device in the power circuit on the switchboard will not completely deenergize the motor controller as might reasonably be supposed. Accordingly, there is a 440-volt potential across the contacts on the panel unless power has been removed therefrom not only by opening the circuit breaker controlling power to the equipment, but also by disconnecting the supply to the indicating light circuit.

In view of the danger of accidents (or even death as in the instant case) which can result from electric shock, any person working on electrical equipment of this or any other nature, should, after opening the circuit he intends to work on, check the circuit for electric potential with some form of testing device before working on it.

In order that this particular hazard may become known to all persons working on control panels, warning signs should be posted at once at each controller where this hazardous condition exists. The warning signs

should caution against opening or working on any unit before all power has been removed from the control, including the indicating circuit.

This accident occurred on a T2 tanker. However, there are similar installations on almost all of the newer vessels—especially those having alternating current. Accordingly, it behooves all whose work requires that they handle or repair electrical equipment to be sure that all such equipment is deenergized before working on it.

later, steam rushed out and burned both men.

Investigation disclosed the fact that someone had closed the drain line after the first flange had been closed and before the second was broken and so allowed pressure to build up.

Accidents of this kind can be very largely prevented through the use of tags bearing some such notation as "Warning—Men Working on Line—Do Not Touch."

These tags should be put on by the man who is doing the work and should be removed by no one but him. An even safer procedure is to provide a means of padlocking a valve so that it cannot be turned. Also, valve locking gear can be easily made.

BOILER COMPOUNDS REQUIRE CAREFUL HANDLING

Another case has come to the attention of the management concerning an engineer officer in the Esso fleet who seriously injured his eyes through having boiler compound come in contact with them. This is very unfortunate, because the injured man could have protected his eyes by wearing goggles as provided by the company for use in handling such materials.

Most boiler compounds contain strong alkalis which, if allowed to touch any part of the body and particularly the eyes, will cause chemical burns. It is especially tragic when the handler allows a small amount to get into his eyes, since impairment of vision and even total loss of sight may result.

All persons who handle boiler compounds are cautioned to be extremely careful. (THE SHIPS' BULLETIN, Standard Oil Co. (New Jersey)).



TAG THOSE VALVES

Recently two men were installing new gaskets in the main steam line. The stop valve was closed but leaked slightly so that it was necessary to keep a drain valve open to avoid building up pressure. One gasket had been replaced without difficulty, but when a second flange was broken a little

APPENDIX

Amendments to Regulations

TITLE 33—NAVIGATION AND NAVIGABLE WATERS

Chapter I—Coast Guard, Department of the Treasury

[CGFR 48-74]

LIGHTS FOR BARGES, CANAL BOATS, SCOWS, RAFTS, AND OTHER NONDESCRIPT VESSELS

A notice regarding proposed changes in the lights for barges, canal boats, scows, and other nondescript vessels while on certain inland waters and for rafts when towed on certain inland waters and western rivers was published in the FEDERAL REGISTER dated December 7, 1948 (13 F. R. 7433), and a public hearing was held by the Merchant Marine Council on December 20, 1948, at Washington, D. C.

The purpose of these amendments is to change the requirements for lights for barges, canal boats, scows, and other nondescript vessels when being towed by steam vessels on the Gulf Intracoastal Waterway and adjacent waters, including rivers crossing that waterway, to be the same as for similar vessels when being towed by steam vessels on western rivers, as well as to prescribe lights for rafts when being towed on all inland waters along the Atlantic, Gulf, and Pacific Coasts and western rivers, in accordance with a petition submitted by operators of vessels on the Gulf Intracoastal Waterway.

These amendments are to be effective on and after January 1, 1949, because the requirements of Public Law 544, approved May 21, 1948, become effective on that date and these regulations are promulgated pursuant thereto. It is impracticable and contrary to public interest to postpone the

Good seamanship means:

- *Sea horse sense.
- *Doing what the other fellow expects you to do before he has time to prevent it.
- *Taking your vessel where it is safe, when it is safe, at the speed of a prudent seaman.

effective date of these amendments. The other amendments to 33 CFR 80.16 (formerly 312.16) and 95.37 (formerly 332.37) to bring them into agreement with Public Law 544 were published in the FEDERAL REGISTER dated November 3, 1948 (13 F. R. 6477-6481), to be effective on and after January 1, 1949.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by R. S. 4405, as amended, and section 101 of Reorganization Plan No. 3 of 1946, 46 U. S. C. 1, 375, as well as the statutes cited with the regulations below, the following amendments to the regulations are prescribed:

Subchapter D—Navigation Requirements for Certain Inland Waters

PART 80—PILOT RULES FOR INLAND WATERS

1. Section 80.16 (formerly 312.16) is amended to read as follows:

§ 80.16 *Lights for barges, canal boats, scows and other nondescript vessels on certain inland waters on the Atlantic and Pacific Coasts.* (a) On the harbors, rivers, and other inland waters of the United States except the Great Lakes and their connecting and tributary waters as far east as Montreal, the Mississippi River above the Huey Long Bridge with all of its tributaries and their tributaries, the Red River of the North, the Mobile River above Choctaw Point with its tributaries and their tributaries, the Atchafalaya River above its junction with the Plaquemine-Morgan City alternate waterway, and the waters hereinafter described in §§ 80.16a and 80.17, barges, canal boats, scows, and other vessels of nondescript type not otherwise provided for, when being towed by steam vessels, shall carry lights as set forth in this section.

(b) Barges and canal boats towing astern of steam vessels, when towing singly, or what is known as tandem towing, shall each carry a green light on the starboard side and a red light on the port side, and a white light on the stern, except that the last vessel of such tow shall carry two lights on her stern, athwartship, horizontal to each other, not less than 5 feet apart, and not less than 4 feet above the deck house, and so placed as to show all around the horizon. A tow of one such vessel shall be lighted as the last vessel of a tow.

(c) When two or more boats are abreast, the colored lights shall be carried at the outer sides of the bows of the outside boats. Each of the outside boats in last tier of a hawser tow shall carry a white light on her stern.

(d) The white light required to be carried on stern of a barge or canal boat carrying red and green side lights except the last vessel in a tow shall be carried in a lantern so constructed that it shall show an unbroken light over an arc of the horizon of 12 points of the compass, namely, for 6 points from right aft on each side of the vessel, and shall be of such a character as to be visible on a dark night with a clear atmosphere at a distance of at least 2 miles.

(e) Barges, canal boats or scows towing alongside a steam vessel shall, if the deck, deck houses, or cargo of the barge, canal boat or scow be so high above water as to obscure the side lights of the towing steamer when being towed on the starboard side of the steamer, carry a green light upon the starboard side; and when towed on the port side of the steamer, a red light on the port side of the barge, canal boat, or scow; and if there is more than one barge, canal boat or scow abreast, the colored lights shall be displayed from the outer side of the outside barges, canal boats or scows.

(f) Barges, canal boats or scows shall, when being propelled by pushing ahead of a steam vessel, display a red light on the port bow and a green light on the starboard bow of the head barge, canal boat or scow, carried at a height sufficiently above the superstructure of the barge, canal boat or scow as to permit said side lights to be visible; and if there is more than one barge, canal boat or scow abreast, the colored lights shall be displayed from the outer side of the outside barges, canal boats or scows.

(g) The colored side lights referred to in this section shall be fitted with inboard screens so as to prevent them from being seen across the bow, and of such a character as to be visible on a dark night, with a clear atmosphere, at a distance of at least 2 miles, and so constructed as to show a uniform and unbroken light over an arc of the horizon of 10 points of the compass, and so fixed as to throw the light from right ahead to 2 points abaft the beam on either side. The minimum size of

glass globes shall not be less than 6 inches in diameter and 5 inches high in the clear.

(h) Scows not otherwise provided for in this section on waters described in paragraph (a) of this section shall carry a white light at each end of each scow, except that when such scows are massed in tiers, two or more abreast, each of the outside scows shall carry a white light on its outer bow, and the outside scows in the last tier shall each carry, in addition, a white light on the outer part of the stern. The white light shall be carried not less than 8 feet above the surface of the water, and shall be so placed as to show an unbroken light all around the horizon, and shall be of such a character as to be visible on a dark night with a clear atmosphere at a distance of at least 5 miles. (R. S. 4233A, sec. 2, 30 Stat. 102, 38 Stat. 381, as amended, 33 U. S. C. 157, 178, Pub. Law 544, 80th Cong.)

2. Part 80 is amended by adding new §§ 80.16a and 80.16b, reading as follows:

§ 80.16a *Lights for barges, canal boats, scows and other nondescript vessels on certain inland waters on the Gulf Coast and the Gulf Intracoastal Waterway.* (a) On the Gulf Intracoastal Waterway and on other inland waters connected therewith or with the Gulf of Mexico from the Rio Grande, Texas, to Cape Sable (East Cape), Florida, barges, canal boats, scows, and other vessels of nondescript type not otherwise provided for, when being towed by steam vessels shall carry lights as set forth in this section.

(b) When one or more barges, canal boats, scows, or other vessels of nondescript type not otherwise provided for are being towed by pushing ahead of a steam vessel; such tow shall be lighted by an amber light at the extreme forward end of the bow and at the centerline of the tow, or as near the centerline as it is practicable to carry such light; and a green light on the starboard side and a red light on the port side, so placed that they mark the tow at its maximum projection to starboard and port, respectively.

(c) When being towed alongside a steam vessel on the starboard side, a barge, canal boat, scow, or other vessel of nondescript type not otherwise provided for shall have a green light on the starboard bow, and when being towed alongside on the port side, a red light on the port bow.

(d) When being towed on either side of a steam vessel, two or more abreast, only outboard barges, scows, canal boats, or other vessels of nondescript type not otherwise provided for shall carry the appropriate side lights.

(e) When being towed singly or in tandem on a hawser behind a steam vessel, each barge, canal boat, scow, or other vessel of nondescript type not otherwise provided for shall carry a white light at each end.

(f) When being towed in tiers, two or more abreast, each of the outside barges, canal boats, scows, or other vessels of nondescript type not otherwise provided for shall carry a white light on its outer bow, and in addition each of the outside boats in the last tier shall carry a white light on the outer part of the stern.

(g) When one or more barges, canal boats, scows, or other vessels of nondescript type not otherwise provided for are moored to the bank or dock in or near a fairway, such tow shall carry two white lights not less than four feet above the surface of the water, as follows: On a single moored barge, canal boat, scow, or other vessel of nondescript type not otherwise provided for, a light at each outboard or channelward corner; on barges, canal boats, scows, or other vessels of nondescript type not otherwise provided for when moored in a group formation, a light on the upstream outboard or channelward corner of the outer upstream boat and a light on the downstream outboard or channelward corner of the outer downstream boat, and in addition any boat projecting toward or into the channel from such group formation shall have two white lights similarly placed on its outboard or channelward corners.

(h) The colored side lights described herein must be fitted with inboard screens so as to prevent them from being seen more than half a point across the bow, of such a character as to be visible on a dark night with a clear atmosphere at a distance of at least three miles, so constructed as to show a uniform and unbroken light over an arc of the horizon of ten points of the compass, and so fixed as to throw the light from right ahead to two points abaft the beam on either side.

(i) The amber light shall show an unbroken light over an arc of the horizon of 20 points of the compass, so fixed as to throw the light 10 points on each side, namely, from right ahead to 2 points abaft the beam on either side and shall be of such a character as to be visible at a distance of at least 3 miles.

(j) All lights described herein shall be carried at least eight feet above the surface of the water and at approximately the same height, except as provided in paragraph (g) of this section.

(k) The white lights described herein shall be so constructed as to show all around the horizon and shall

be visible a distance of at least 2 miles. (R. S. 4233A, sec. 2, 30 Stat. 102, 38 Stat. 381, as amended, 33 U. S. C. 157, 178, Pub. Law 544, 80th Cong.)

§ 80.16b *Lights for barges, canal boats, scows, and other nondescript vessels temporarily operating on waters requiring different lights.* Nothing in §§ 80.16, 80.16a, or 80.17 shall be construed as compelling barges, canal boats, scows, or other vessels of nondescript type not otherwise provided for, being towed by steam vessels, when passing through any waters coming within the scope of any regulations where lights for such boats are different from those of the waters whereon such boats are usually employed, to change their lights from those required on the waters on which their trip begins or terminates; but should such boats engage in local employment on waters requiring different lights from those where they are customarily employed, they shall comply with the local rules where employed. (R. S. 4233A, sec. 2, 30 Stat. 102, 38 Stat. 381, as amended, 33 U. S. C. 157, 178, Pub. Law 544, 80th Cong.)

3. Section 80.32 (formerly 312.32) is amended to read as follows:

§ 80.32 *Lights for rafts and other water craft operating by hand power, horsepower, or current.* (a) Any vessel, except rafts and rowing boats under oars, navigating by hand power, horsepower, or by the current of the river, shall carry one white light forward, not less than 8 feet above the surface of the water.

(b) Rafts propelled by hand power or by the current of the river, or when being towed, or which shall be anchored or moored in or near a channel or fairway, shall carry white lights, as follows:

(1) Rafts of one crib and not more than two in length shall carry one white light.

(2) Rafts of three or more cribs in length and one crib in width shall carry one white light at each end of the raft.

(3) Rafts of more than one crib abreast shall carry one white light on each outside corner of the raft, making four lights in all.

(c) The white lights required by this section for rafts and other water craft shall be carried, from sunset to sunrise, in a lantern so fixed and constructed as to show a clear, uniform, and unbroken light, visible all around the horizon, and of such intensity as to be visible on a dark night with a clear atmosphere at a distance of at least 1 mile. The lights for rafts shall be suspended from poles of such height that the lights shall not be less than 8 feet above the surface of the water.

Subchapter F—Navigation Requirements for Western Rivers

PART 95—PILOT RULES FOR WESTERN RIVERS

Section 95.37 (b) (formerly 332.37 (b)) is amended to read as follows:

§ 95.37 *Lights for rafts and other craft.* * * *

(b) Rafts propelled by hand power or by the current of the river, or when being towed, or which shall be anchored or moored in or near a channel or fairway, shall carry white lights, as follows:

(1) Rafts of one crib and not more than two in length shall carry one white light.

(2) Rafts of three or more cribs in length and one crib in width shall carry one white light at each end of the raft.

(3) Rafts of more than one crib abreast shall carry one white light on each outside corner of the raft, making four lights in all. (R. S. 4405, as amended; 46 U. S. C. 375; sec. 101, Reorg. Plan 3 of 1946, 11 F. R. 7875) Dated: December 24, 1948.

J. F. FARLEY,
Admiral, U. S. Coast Guard,
Commandant.

[F. R. Doc. 48-11452; Filed, Dec. 30, 1948; 8:51 a. m.; 13 F. R. 9334, Dec. 31, 1948.]

TITLE 46—SHIPPING

SUBCHAPTER O—REGULATIONS APPLICABLE TO CERTAIN VESSELS DURING EMERGENCY

[CGFR 48-68]

PART 154—WAIVERS OF NAVIGATION AND VESSEL INSPECTION LAWS AND REGULATIONS

NUMBERING OF GENERAL WAIVERS PREVIOUSLY PUBLISHED IN THE FEDERAL REGISTER

In order to conform the material in Appendix A, Chapter I of Title 46, to the scope and style of the Code of Federal Regulations, 1949 edition, as prescribed by the regulations of the Administrative Committee of the Federal Register and approved by the President, the general waivers heretofore published in the Federal Register and which are currently in effect have been assigned section numbers and headings and codified in Part 154 of Subchapter O so that they may be shown as material having future force and effect when the 1949 edition of the Code of Federal Regulations is published. No change has been made

in the text of the original waivers as published and/or modified. This recodification and listing are only editorial in nature and shall not change the force and effect of any waiver of navigation and vessel inspection laws and regulations made pursuant to a general waiver previously published in the Federal Register and codified in Appendix A.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by the act of March 31, 1947, as amended (Public Laws 27, 293, 423, 80th Congress), I hereby assign the following section numbers and headings to the general waivers of navigation and vessel inspection laws and regulations, which are currently in effect, and these editorial changes shall be made effective on and after the date of publication of this document in the Federal Register.

- Sec.
- 154.01 Description of seaman's wages in shipping articles.
 - 154.03 Bond allotments on shipping articles.
 - 154.05 Permitting compliance with routing instructions and orders.
 - 154.07 Chronological record of seaman's previous employment.
 - 154.09 Permitting cargo vessels equipped with certificates issued by British Ministry of War Transport to load passengers at U. S. ports for outward transportation.
 - 154.11 Permitting masters of Great Lakes vessels to approve allotments of seamen.
 - 154.13 Utilization of petroleum for motive power of steam vessels.
 - 154.15 Cargo vessels equipped with certificates issued by British Ministry of War Transport.
 - 154.17 Reporting of employment, discharge or termination of seamen on tugs, towboats, and seagoing barges.
 - 154.19 Eight-hour day on tugs navigating the Great Lakes and tributary waters.
 - 154.21 Crew list required.
 - 154.23 Reporting of employment, discharge or termination of seamen on vessels employed exclusively in trade on lakes other than the Great Lakes, bays, sounds, bayous, canals, and harbors.
 - 154.25 Certificates and continuous discharge books in shipping of seamen on vessels on the Great Lakes.
 - 154.27 Procedures for effecting individual waivers of navigation and vessel inspection laws and regulations.
 - 154.29 Continuation in effect of certain waivers, regulations, and instructions, effective March 23, 1948.
 - 154.31 Conditional waiver of manning requirements.
 - 154.33 Able seamen employed on Great Lakes merchant cargo and tank vessels.
 - 154.35 Qualified members of engine department on Great Lakes merchant cargo and tank vessels.

154.37 Employment of aliens as unlicensed crew members on subsidized vessels.

AUTHORITY: §§ 154.01 to 154.37 issued under 61 Stat. 33, 685, Pub. Law 423, 80th Cong.; 46 U. S. C. sup., note prec. 1.

§ 154.01 *Description of seaman's wages in shipping articles.* (The text of this waiver is in 46 CFR 1943 Supp. 2079, 7 F. R. 404.)

§ 154.03 *Bond allotments on shipping articles.* (The text of this waiver is in 46 CFR 1943 Supp. 2080, 7 F. R. 1045.)

§ 154.05 *Permitting compliance with routing instructions and orders.* (The text of this waiver is in 46 CFR 1943 Supp. 2073, 7 F. R. 2478.)

§ 154.07 *Chronological record of seaman's previous employment.* (The text of this waiver is in 46 CFR 1943 Supp. 2078, 7 F. R. 2643.)

§ 154.09 *Permitting cargo vessels equipped with certificates issued by British Ministry of War Transport to load passengers at U. S. ports for outward transportation.* (The text of this waiver is in 46 CFR 1943 Supp. 2073, 7 F. R. 2869.)

§ 154.11 *Permitting masters of Great Lakes vessels to approve allotments of seamen.* (The text of this waiver is in 46 CFR 1943 Supp. 2080, 7 F. R. 3126.)

§ 154.13 *Utilization of petroleum for motive power of steam vessels.* (The text of this waiver is in 46 CFR 1943 Supp. 2078, 7 F. R. 4515.)

§ 154.15 *Cargo vessels equipped with certificates issued by British Ministry of War Transport.* (The text of this waiver is in 46 CFR 1943 Supp. 2081, 8 F. R. 13826.)

§ 154.17 *Reporting of employment, discharge or termination of seamen on tugs, towboats, and seagoing barges.* (The text of this waiver is in 46 CFR 1944 Supp. 3477, 9 F. R. 3159.)

§ 154.19 *Eight-hour day on tugs navigating the Great Lakes and tributary waters.* (The text of this waiver is in 46 CFR 1944 Supp. 3477, 9 F. R. 12597.)

§ 154.21 *Crew list required.* (The text of this waiver is in 46 CFR 1944 Supp. 3477, 9 F. R. 13167.)

§ 154.23 *Reporting of employment, discharge or termination of seamen on vessels employed exclusively in trade on lakes other than the Great Lakes, bays, sounds, bayous, canals, and harbors.* (The text of this waiver is in 46 CFR 1944 Supp. 3478, 9 F. R. 15006.)

§ 154.25 *Certificates and continuous discharge books in shipping of seamen on vessels on the Great Lakes.* (The text of this waiver is in 46 CFR 1945 Supp. 4241, 10 F. R. 2408.)

§ 154.27 *Procedures for effecting individual waivers of navigation and vessel inspection laws and regulations.*

(The text of this waiver is in 46 CFR 1947 Supp. 6359, 12 F. R. 3249.)

§ 154.29 *Continuation in effect of certain waivers, regulations, and instructions, effective March 23, 1948.* (The text of this waiver is in the Federal Register dated March 23, 1948, 13 F. R. 1507.)

§ 154.31 *Conditional waiver of manning requirements.* (The text of this waiver is in the Federal Register dated April 17, 1948, 13 F. R. 2069.)

§ 154.33 *Able seamen employed on Great Lakes merchant cargo and tank vessels.* (The text of this waiver is in the Federal Register dated April 17, 1948, 13 F. R. 2070.)

§ 154.35 *Qualified members of engine department on Great Lakes merchant cargo and tank vessels.* (The text of this waiver is in the Federal Register dated April 17, 1948, 13 F. R. 2072.)

§ 154.37 *Employment of aliens as unlicensed crew members on subsidized vessels.* (The text of this waiver is in the Federal Register dated April 17, 1948, 13 F. R. 2071.)

APPENDIX A—WAIVERS OF NAVIGATION AND VESSEL INSPECTION LAWS AND REGULATIONS

TRANSFER OF WAIVERS

The waivers currently in effect have been transferred to Part 154, *supra*, and assigned section numbers and headings.

Dated: December 9, 1948.

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

[F. R. Doc. 48-10957; Filed, Dec. 15, 1948;
8:52 a. m.; 13 F. R. 7784, Dec. 16, 1948.]

Navigation and Vessel Inspection Circular No. 10-48

UNITED STATES COAST GUARD,

Washington 25, D. C.,
December 16, 1948.

CONTROL PANELS WITH SEPARATE INDICATING LIGHT CIRCUITS; DANGER OF EXPOSURE TO ELECTRIC CURRENT; POSTING OF DANGER SIGNS.

1. Recently an engineer of a T2-SE-A1 tank vessel was killed by electric shock while working on the control panel of a 50 horsepower forced draft fan motor. He was replacing the contact fingers of the starting relay in the panel. Before working on this panel he had opened the circuit breaker on the main switchboard as

well as the panel switch, and evidently assumed that this rendered the panel safe to work on. However, on this type of installation there are indicating lights on the switchboard whose circuits are completed through auxiliary contacts within the respective motor controller. The opening of a line switch within the controller fitted with such an auxiliary contact, or opening the disconnecting device in the power circuit on the switchboard, will not completely deenergize the motor controller as might reasonably be supposed. Accordingly, in this case there is a 440-volt potential across the contacts on the panel unless power has been removed therefrom by both opening the circuit breaker controlling power to the equipment and by disconnecting the supply to the indicating light circuit.

2. In control panels with separate indicating light circuits there may be two sources of electrical power. There is a hazardous potential at the contacts on the panel unless power has been removed from the controller not only by opening the main circuit breaker but by seeing that the indicating circuit is opened as well. Accordingly, no work should be undertaken unless all power has been removed from the panel. Any person working on electrical equipment of this kind or equipment of a similar nature should, after opening the circuits he intends to work on, check the circuits for potential with some form of testing device before working on them.

3. In view of the danger of accidents and possible death from electric shock, control panels with separate indicating light circuits should have warning signs posted on the external surface of the panel door inclosure of each controller where this hazardous condition exists. The warning signs should caution against opening or working on any unit before all power has been removed from the controller, including all indicating circuits. These warning signs should be posted at once, if not already in use, and should remain legible until it is possible to remove the hazard.

4. To eliminate this hazard as soon as possible the indicating circuits on the vessels should be rearranged electrically. This may be accomplished by:

(a) Obtaining power for these circuits from the load side of the controller contacts; in effecting this rearrangement suitable fuses protecting these indicating circuits should be provided on the controller panel; or,

(b) Using a disconnecting device actuated by the panel door enclosure, this device and its connections being such that there are no electrically un-insulated surfaces; or,

(c) Providing any other method which will accomplish the same purpose satisfactorily.

5. In the event that the type of circuit of any specific controller will not permit any rearrangement as described in paragraph 4, then a permanent warning sign should be firmly mounted on the external surface of the panel door enclosure.

(S) MERLIN O'NEILL,

Rear Admiral,
United States Coast Guard,
Acting Commandant.

Equipment Approved by the Commandant

APPROVAL OF EQUIPMENT AND CORRECTION OF PRIOR DOCUMENT

[CGFR 48-54]

By virtue of the authority vested in me as Commandant, United States Coast Guard, by R. S. 4405 and 4491, as amended (46 U. S. C. 375, 489), and section 101 of Reorganization Plan No. 3 of 1946 (11 F. R. 7875), as well as the additional authorities cited with specific items below, the following correction of a prior document and the approvals of equipment are prescribed, and the approvals shall be effective for a period of five years from date of publication in the FEDERAL REGISTER unless sooner canceled or suspended by proper authority:

CLEANING PROCESSES FOR LIFE PRESERVERS

NOTE: Where buoyancy fillers are not removed from envelope covers during cleaning process.

Approval No. 160.006/16/0. Select cleaning process for kapok life preservers with permanently installed buoyant inserts, as outlined in letter of September 10, 1948, from the Select Laundry, 2510 Filbert Street, Oakland 7, Calif.

(R. S. 4417a, 4426, 4488, 4492, 35 Stat. 428, 49 Stat. 1544, 54 Stat. 164, 166, 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 391a, 396, 404, 481, 490, 526e, 526p, 1333, 50 U. S. C. 1275; 46 CFR 160.006-4)

BUOYANT CUSHIONS, NON-STANDARD

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

Approval No. 160.008/398/0, 16" x 16" x 2" rectangular buoyant cushion, 25 oz. kapok, U. S. C. G. Specification 160.008, Dwg. dated September 13, 1948, manufactured by Fortier Upholstering Co., Manistee, Mich.

Approval No. 160.008/399/0, 15" x 18" x 2" rectangular buoyant cushion, 25 oz. kapok, U. S. C. G. Specifi-

cation 160.008, Dwg. dated September 11, 1948, manufactured by Fortier Upholstering Co., Manistee, Mich. (54 Stat. 164, 166; 46 U. S. C. 526e, 526p; 46 CFR 25.4-1, 28.4-8)

LIFEBOATS

Approval No. 160.035/164/0, 26' x 9' x 3.25' steel, oar-propelled lifeboat, 50-person capacity, identified by General Arrangement Dwg. No. G-367-D dated March 5, 1946, and revised November 14, 1946, manufactured by C. C. Galbraith & Son, Inc., 99 Park Place, New York, N. Y.

Approval No. 160.035/189/0, 28' x 9' x 3.96' steel, oar-propelled lifeboat, 59-person capacity, identified by Construction and Arrangement Dwg. No. 3205 dated February 11, 1947, manufactured by the Welin Davit and Boat Division of the American Steel & Copper Industries, Inc., Perth Amboy, N. J.

Approval No. 160.035/194/1, 35.0' x 12.33' x 5.25' steel, hand-propelled lifeboat, 135-person capacity, identified by Construction and Arrangement Dwg. No. 1871 dated December 11, 1940, and revised August 21, 1947, and No. 2976 dated April 5, 1945, manufactured by the Welin Davit and Boat Division of the American Steel & Copper Industries, Inc., Perth Amboy, N. J. (Supersedes Approval No. 160.035/194/0 published in the Federal Register April 1, 1948.)

(R. S. 4417a, 4426, 4481, 4488, 4492, 35 Stat. 428, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 391a, 396, 404, 474, 481, 490, 1333, 50 U. S. C. 1275; 46 CFR 37.1-1, 59.13, 76.16, 94.15, 113.10)

BOILERS, HEATING

Approval No. 162.003/61/1, Size 3824-8C Way-Wolff hot water heating boiler, welded steel plate construction, vertical fire tube, oil fired, Dwgs. No. H-110-1 and No. H-110-E, Rev. 1, maximum working pressure 30 p. s. i., manufactured by Way-Wolff Associates, Inc., 33 Fulton Street, New York 7, N. Y. (Supersedes previous approval No. 162.003/61/0 published in the Federal Register May 1, 1948, due to change in boiler designations.)

Approval No. 162.003/62/0, Size 3830-8C Way-Wolff hot water heating boiler, welded steel plate construction, vertical fire tube, oil fired, Dwgs. No. H-110-1 and No. H-110-E, Rev. 1, maximum working pressure 30 p. s. i., manufactured by Way-Wolff Associates, Inc., 33 Fulton Street, New York 7, N. Y.

Approval No. 162.003/64/0, Size 5730-8C Way-Wolff hot water heating boiler, welded steel plate construction, vertical fire tube, oil fired, Dwgs. No. H-110-1 and No. H-110-D, Rev. 5,

maximum working pressure 30 p. s. i., manufactured by Way-Wolff Associates, Inc., 33 Fulton Street, New York 7, N. Y.

Approval No. 162.003/64/0, Size 5736-8C Way-Wolff hot water heating boiler, welded steel plate construction, vertical fire tube, oil fired, Dwgs. No. H-110-1 and No. H-110-D, Rev. 5, maximum working pressure 30 p. s. i., manufactured by Way-Wolff Associates, Inc., 33 Fulton Street, New York 7, N. Y.

Approval No. 162.003/65/0, Size 1920-8C Way-Wolff hot water heating boiler, welded steel plate construction, vertical fire tube, oil fired, Dwgs. No. H-110-1 and No. H-110-F, Rev. 4, maximum working pressure 30 p. s. i., manufactured by Way-Wolff Associates, Inc., 33 Fulton Street, New York 7, N. Y.

Approval No. 162.003/66/0, Size 6930-10C Way-Wolff hot water heating boiler, welded steel plate construction, vertical fire tube, oil fired, Dwgs. No. H-110-1 and No. H-110-B, Rev. 5, maximum working pressure 30 p. s. i., manufactured by Way-Wolff Associates, Inc., 33 Fulton Street, New York 7, N. Y.

Approval No. 162.003/67/0, Size 6936-10C Way-Wolff hot water heating boiler, welded steel plate construction, vertical fire tube, oil fired, Dwgs. No. H-110-1 and No. H-110-B, Rev. 5, maximum working pressure 30 p. s. i., manufactured by Way-Wolff Associates, Inc., 33 Fulton Street, New York 7, N. Y.

Approval No. 162.003/68/0, Size 6948-10C Way-Wolff hot water heating boiler, welded steel plate construction, vertical fire tube, oil fired, Dwgs. No. H-110-1 and No. H-110-B, Rev. 5, maximum working pressure 30 p. s. i., manufactured by Way-Wolff Associates, Inc., 33 Fulton Street, New York 7, N. Y.

Approval No. 162.003/74/0, Size 4630-10C Way-Wolff hot water heating boiler, welded steel plate construction, vertical fire tube, oil fired, Dwgs. No. H-110-1 and No. H-110-G, Rev. 1, maximum working pressure 30 p. s. i., manufactured by Way-Wolff Associates, Inc., 33 Fulton Street, New York 7, N. Y.

Approval No. 162.003/75/0, Size 4636-10C Way-Wolff hot water heating boiler, welded steel plate construction, vertical fire tube, oil fired, Dwgs. No. H-110-1 and No. H-110-G, Rev. 1, maximum working pressure 30 p. s. i., manufactured by Way-Wolff Associates, Inc., 33 Fulton Street, New York 7, N. Y.

(R. S. 4417a, 4418, 4426, 4433, 4434, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 391a, 392, 404, 411, 412, 1333, 50 U. S. C. 1275; 46 CFR Part 52)

STRUCTURAL INSULATIONS

Approval No. 164.007/25/0, "PC Foamglas" cellulated glass type structural insulation identical to that described in manufacturer's pamphlet No. G2508 revised 10-47, and National Bureau of Standards' letter file 10.2/10.2, FP2628 dated August 25, 1948, and file 10.2 dated October 8, 1948, approved for use without other insulating materials as meeting Class A-60 requirements in a 4-inch thickness and 10 pounds per cubic foot density, manufactured by Pittsburgh Corning Corp., 632 Duquesne Way, Pittsburgh 22, Pa.

(R. S. 4417a, 4426, 49 Stat. 1384, 1544, 54 Stat. 346, 1028, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 369, 391a, 404, 463a, 1333, 50 U. S. C. 1275; 46 CFR Part 144)

CORRECTION OF PRIOR DOCUMENT

The following corrections shall be made on Coast Guard Document CGFR 47-38, F. R. Document 47-7118, filed July 30, 1947, and published in the Federal Register, dated July 31, 1947, 12 F. R. 5185 et seq., under the heading "Davits, Lifeboat" in Approval No. 160.032/66/0:

Approval No. 160.032/66/0, Mechanical davit, straight boom sheath screw, Type B, approved for maximum working load of 13,500 pounds per set (6750 pounds per arm) using not less than 6 part falls, identified by General Arrangement Dwgs. No. 2203 dated February 18, 1942, and No. 2203-A dated June 22, 1942, manufactured by Welin Davit and Boat Division of the American Steel & Copper Industries, Inc., Perth Amboy, N. J. (The listing in Federal Register July 31, 1947, 12 F. R. 5205, corrected to show increased approved working load.)

Dated: October 22, 1948.

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

[F. R. Doc. 48-9529; Filed Oct. 28, 1948;
8:53 a. m., 13 F. R. 6359, Oct. 29, 1948]

[CGFR 48-61]

By virtue of the authority vested in me as Commandant, United States Coast Guard, by R. S. 4405 and 4491, as amended (46 U. S. C. 375, 489), and section 101 of Reorganization Plan No. 3 of 1946 (11 F. R. 7875), as well as the additional authorities cited with specific items below, the following approvals of equipment are prescribed and shall be effective for a period of five years from date of publication in the FEDERAL REGISTER unless sooner canceled or suspended by proper authority:

BUOYANT CUSHIONS, NON-STANDARD

NOTE: Cushions are for use on motor-boats of Classes A, 1 or 2 not carrying passengers for hire.

Approval No. 160.008/400/0, 14" x 29" x 2" rectangular buoyant cushion, 36 oz. kapok, Dwg. No. 102 dated October 21, 1948, U. S. C. G. Specification 160.008, manufactured by Nappe-Smith Manufacturing Co., Southard Avenue, Farmingdale, N. J. (54 Stat. 164, 166; 46 U. S. C. 526e, 526p; 46 CFR 25.4-1, 28.4-8)

BUOYANT APPARATUS

Approval No. 160.010/16/0, Buoyant apparatus, elliptical, solid balsa wood, 5-person capacity, Dwg. No. MDC-CG-100, revised October 7, 1948, manufactured by Modcraft Co., Inc., 300 Wyckoff Avenue, Brooklyn 27, N. Y. (R. S. 4417a, 4426, 4488, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 391a, 404, 1333, 50 U. S. C. 1275; 46 CFR 37.1-1, 59.54a, 60.47a, 76.51a)

DAVITS, LIFEBOAT

Approval No. 160.032/92/0, Mechanical davit, Type 22-31, straight boom sheath screw, approved for maximum working load of 8,800 pounds per set (4,400 pounds per arm) using 6 part falls, identified by Arrangement Dwg. No. DB-101 dated March 28, 1947, and revised September 28, 1948, manufactured by the Marine Safety Equipment Corp., Point Pleasant, N. J. (R. S. 4417a, 4426, 4481, 4488, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 391a, 404, 474, 481, 1333, 50 U. S. C. 1275; 46 CFR 37.1-4, 59.3, 60.21, 76.15, 94.14, 113.23)

LIFEBOATS

Approval No. 160.035/27/1, 28' x 9' x 4' steel, oar-propelled lifeboat, 59-person capacity, identified by Construction and Arrangement Dwg. No. G-355-F dated June 10, 1948, manufactured by C. C. Galbraith & Son, Inc., 99 Park Place, New York, N. Y. (Supersedes Approval No. 160.035/27/0 published in the FEDERAL REGISTER July 31, 1947.)

Approval No. 160.035/166/0, 30' x 10' x 4' steel, hand-propelled lifeboat, 72-person capacity, identified by Construction and Arrangement Dwg. No. G-413 dated July 20, 1948, manufactured by C. C. Galbraith & Son, Inc., 99 Park Place, New York, N. Y.

Approval No. 160.035/174/0, 22' x 7.5' x 3.17' steel, motor-propelled lifeboat without radio cabin, 28-person capacity, identified by Construction and Arrangement Dwg. No. 22-2B dated September 18, 1947, and revised October 9, 1948, manufactured by Marine Safety Equipment Corp., Point Pleasant, N. J.

Approval No. 160.035/221/0, 24' x 7.63' x 3.21' steel, oar-propelled lifeboat, 35-person capacity, identified by Construction and Arrangement Dwg. Nos. 24-4 dated April 19, 1948, and revised September 30, 1948, and 24-4B dated June 14, 1948, and revised October 12, 1948, manufactured by Marine Safety Equipment Corp., Point Pleasant, N. J.

(R. S. 4417a, 4426, 4481, 4488, 4492, 35 Stat. 428, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 391a, 396, 404, 474, 481, 490, 1333, 50 U. S. C. 1275; 46 CFR 37.1-1, 59.13, 76.16, 94.15, 113.10)

FIRE EXTINGUISHER, PORTABLE, HAND CARBON-DIOXIDE TYPE

Approval No. 162.005/30/0, Model 5T-1, trigger grip, 5-pound, carbon dioxide, hand portable fire extinguisher, Assembly Dwg. No. MS-890012, Rev. A, dated October 23, 1946, Name Plate Dwg. No. 270061, Rev. A, dated September 27, 1946, manufactured by Walter Kidde & Co., Inc., 675 Main St., Belleville 9, N. J. (R. S. 4417a, 4426, 4479, 4492, 49 Stat. 1544, 54 Stat. 165, 166, 346, 1028, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 391a, 404, 463a, 472, 490, 526g, 526p, 1333, 50 U. S. C. 1275; 46 CFR 25.5-1, 26.3-1, 27.3-1, 34.5-1, 61.13, 77.13, 95.13, 114.15)

Dated; November 24, 1948.

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

[F. R. Doc. 48-10488; Filed, Dec. 1, 1948; 8:49 a. m., 13 F. R. 1368, Dec. 2, 1948]

TERMINATION OF APPROVAL OF EQUIPMENT [CGFR 48-55]

By virtue of the authority vested in me as Commandant, United States Coast Guard, by R. S. 4405, 4417a, 4418, 4426, 4433, 4434, 4491, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended (46 U. S. C. 367, 375, 391a, 392, 404, 411, 412, 489, 1333, 50 U. S. C. 1275; 46 CFR Part 52), the following approval is terminated because the item is no longer being manufactured:

Termination of Approval No. 162.003/33/0, Model V hot-water heating boiler, Blue Jacket ship heater, welded steel plate construction, vertical Scotch type, oil fired, Dwg. Nos. H-103A rev. July 12, 1943, and H-104A rev. July 12, 1943, heating surface 28 to 57 square feet, approved for sizes Nos. 4024, 4030, 6030, and 6036, maximum working pressure 30 p. s. i., manufactured by Way-Wolff Associates, Inc., 33 Fulton Street, New York 7, N. Y.

CONDITIONS OF TERMINATION OF APPROVAL

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

Dated; October 22, 1948.

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

[F. R. Doc. 48-9528; Filed, Oct. 28, 1948; 8:52 a. m., 13 F. R., 6359, Oct. 29, 1948]

AFFIDAVITS

The following affidavits were accepted during the period from December 15, 1948, to January 15, 1949:

Bridesburg Foundry Co., Front and Grape Streets, Fullerton, Pa. Castings.

Philadelphia Steel and Iron Co., Conshohocken, Pa. Flanges and forgings.

Staples & Pfeiffer, 528 Bryant Street, San Francisco 7, Calif. Valves and fittings.

C. H. Wheeler Manufacturing Co., Nineteenth and Lehigh Avenues, Philadelphia 32, Pa. Fittings and flanges.

The Wheland Co., Manufacturing Division, Chattanooga 2, Tenn. Forgings.

FUSIBLE PLUGS

The marine engineering regulations and material specifications require that manufacturers submit samples from each heat of fusible plugs to the Commandant for test prior to plugs manufactured from the heat being used on vessels subject to inspection by the Coast Guard. A list of approved heats which have been tested and found acceptable during the period from November 15, 1948 to January 15, 1949, is as follows:

The Lunkenheimer Co., P. O. Box 360, Annex Station, Cincinnati 14, Ohio. Heat Nos. 322 to 326, inclusive.

WELDING ELECTRODES

The results of tests made in the presence of a Surveyor of the American Bureau of Shipping indicate that the brands of electrodes set forth below have met the requirements of "Tentative Specifications for Iron and Steel Arc Welding Electrodes, Designation A233-45T" for the ASTM-AWS Classification Electrodes. Since the electrodes have met the required tests they are, therefore, added to the

Coast Guard's list of acceptable welding electrodes, as follows:

Air Reduction Sales Co., Forty-second Street, opposite Grand Central, New York 17, N. Y. (Arcrods Corp. Manufacturer.) Airco 387, Type E6012.

General Electric Co., Schenectady, N. Y. (Arcrods Corp. Manufacturer.) W-28, Type E6012.

Hobart Brothers, Hobart Square, Troy, Ohio. (Hobart Brothers, Manufacturer.) Hobart No. 55, Type E6010, and Hobart No. 77, Type E6012.

Wilson Welder and Metals Co., Inc., Lincoln Bldg., Forty-second Street and Grand Central, New York 17, N. Y. (Arcrods Corp. Manufacturer.) 109, Type E6012.

Operating Positions and Electrode Sizes

The Airco 387, Type E6012; W-28, Type E6012; and 109, Type E6012; electrodes when of $\frac{1}{16}$ " , $\frac{5}{64}$ " , $\frac{3}{32}$ " , $\frac{1}{8}$ " , $\frac{5}{32}$ " , and $\frac{3}{16}$ " diameter sizes will be allowed for all position welding; when of $\frac{3}{32}$ " and $\frac{1}{4}$ " diameter sizes will be allowed for horizontal fillet and flat positions; and when of $\frac{5}{16}$ " diameter size will be allowed for flat position only. The Hobart No. 55, Type E6010, electrode when of $\frac{1}{8}$ " , $\frac{5}{32}$ " , and $\frac{3}{16}$ " diameter sizes will be allowed for all position welding; and when of $\frac{1}{4}$ " diameter size will be allowed for horizontal fillet and flat position. The Hobart No. 77, Type E6012, electrode when of $\frac{3}{32}$ " , $\frac{1}{8}$ " , $\frac{5}{32}$ " , and $\frac{3}{16}$ " diameter sizes will be allowed for all position welding; when of $\frac{3}{32}$ " and $\frac{1}{4}$ " diameter sizes will be allowed for horizontal fillet and flat position; and when of $\frac{5}{16}$ " diameter size will be allowed for flat position only.

CORRECTION IN WELDING ELECTRODE LISTING

The Equipment Lists for Merchant Vessels, CG 190, page 73, contains an error in the listing of acceptable electrodes manufactured by Hobart Brothers, Hobart Square, Troy, Ohio. Under the brand name Hobart No. 335, the AWS Symbol "E6010" should be listed as "E6011" as type of electrode.

CERTIFICATION OF ARTICLES OF SHIPS' STORES AND SUPPLIES

The following article of ships' stores and supplies certificated 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 is canceled:

Standard Oil Co. (Indiana), 910 South Michigan Avenue, Chicago 80, Ill., certificate No. 262, dated November 30, 1948, "Superla Junior Aerosol with DDT (automatic atomizer)."

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 list-

ings may also be satisfactory for marine use, but should not be so considered until the item is examined and listed by Coast Guard Headquarters. Before listings of electrical appliances are made it is necessary for the manufacturer to submit to the Commandant (MMT), United States Coast Guard Headquarters, Washington 25, D. C., duplicate copies of a detailed assembly drawing, including a material list with finishes of each corrosive part of each item.

Manufacturer and description of equipment	Location apparatus may be used				Date of action
	Passenger and crew quarters and public spaces	Machinery, cargo, and work spaces	Open decks	Pump rooms of tank vessels	
The American Shipbuilding Co., Cleveland, Ohio: Cargo hold lighting fixture, watertight, 1 150-watt lamp max., symbol No. 81, drawing No. UN-EL-29, Alt. 1.	x	x	x		12/28/48
Carpenter Products, Inc., Los Angeles, Calif.: Conduit clamp hanger assembly, drawing No. 2002-0, Alt. 0.	x	x			10/28/48
Crouse-Hinds Co., Syracuse, N. Y.: Floodlight, type ADE-14, with standard base mounting for marine use, catalog Nos. 42740-M and 42739-M, watertight, 1 500-watt lamp max., drawing No. 83-KH, Alt. 0.	x	x	x		10/8/48
Floodlight, type ADE-16, watertight, catalog Nos. 42741-M, 42742-M, 42743-M, 42744-M, 42932-M, and 42933-M, 1 1,000-watt lamp maximum, drawing No. 579-GH11.	x	x	x		11/8/48
The Dayton Manufacturing Co., Dayton, Ohio: Bracket light No. B-5641, nonwatertight, 1 40-watt lamp max., drawing No. 48D423, Chg. B.	x				10/27/48
Bulkhead fixture for mounting over pump room bulkhead dead light, watertight, 1 100-watt lamp maximum, drawing No. 48D438, Chg. A.	x	x	x		11/2/48
Wall bracket fixture, No. B-5539, nonwatertight, 1 40-watt lamp max., drawing No. 48D637, Chg. A.	x				11/30/48
Federal Electric Co., Inc., Chicago, Ill.: Vibrating horn, No. 31, watertight, drawing No. H-6791, Chg. A, and parts list 6791-A.	x	x			10/6/48
Vibrating horn, No. 32, watertight, drawing No. 8198EL, Chg. A, and parts list 8198-A.	x	x			10/6/48
Vibrating horn, No. 33, watertight, drawing No. 8199EL, Chg. A, and parts list No. 8199-A.	x	x			10/6/48
Lovell-Dressel Co., Inc., Arlington, N. J.: Cargo hold fixture, watertight, 1 100-watt lamp max., drawing No. M-5390, Sh. 1 & 2, Alt. 0.	x	x	x		12/28/48
McNab, Inc., New York, N. Y.: Salinity indicator panel, model M4V; assembly drawing No. S-116, Rev. 3; wiring diagram, drawing No. S-417, Rev. 4.	x	x			11/17/48
Meleney Engineering Co., Washington, D. C.: Level alarm contactor, type EA-6, watertight, Reliance Gauge Column Co., drawing No. B-6094-1, Alt. 0.	x	x	x		12/28/48
Murkin Manufacturing Co., Philadelphia, Pa.: Ceiling light, semiindirect type, nonwatertight, 3 60-watt lamps max., drawing No. 3010, Alt. 0.	x				7/8/48
Ceiling light, decorative vaporlight type, 1 60-watt lamp maximum, drawing No. 349, Alt. 2.	x	x	x		10/11/48
Ceiling fixture, fluorescent, surface mounted, watertight, 2 40-watt lamps maximum, Cat. No. 1290, drawing No. 3011, Alt. 1.	x	x			12/10/48
Ceiling light, nonwatertight, 2 60-watt lamps max., drawing No. 302, Alt. 2.	x				11/1/48
Floor lamp, nonwatertight, 3 100-watt lamps maximum, drawing No. 502, Alt. 2.	x				12/9/48
Floor lamp, nonwatertight, 3 75-watt lamps max., drawing No. 566, Alt. 2.	x				12/9/48
Ceiling light, nonwatertight, 3 75-watt lamps max., drawing No. 1250, Alt. 1.	x				11/29/48
Table lamp, nonwatertight, 2 60-watt lamps max., drawing No. 595, Alt. 2.	x				11/29/48
Ceiling light, nonwatertight, 1 60-watt lamp maximum, drawing No. 572-A, Alt. 1.	x				11/29/48
Table lamp, nonwatertight, 2 60-watt lamps maximum, drawing No. 593, Alt. 0.	x				11/29/48
Floor lamp, nonwatertight, 3 100-watt lamps maximum, drawing No. 615, Alt. 1.	x				12/6/48
Ceiling light, nonwatertight, 3 60-watt lamps maximum, drawing No. 1299, Alt. 0.	x				12/14/48
Ceiling light, nonwatertight, 4 60-watt lamps maximum, drawing No. 1216, Alt. 0.	x				12/14/48
Down light, nonwatertight, 1 60-watt lamp maximum, drawing No. 1314, Alt. 0.	x				12/14/48

TERMINATION OF APPROVAL OF EQUIPMENT
[CGFR 48-60]

By virtue of the authority vested in me as Commandant, United States Coast Guard, by R. S. 4405, 4417a, 4418, 4426, 4491, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended (46 U. S. C. 367, 375, 391a, 392, 489, 1333, 50 U. S. C. 1275), the following approvals of automatic floating electric water lights are terminated effective December 31, 1948, because the regulations in 46 CFR 37.9-1 prohibit their installation on board merchant vessels as either replacement equipment or as new equipment:

LIGHTS (WATER): ELECTRIC, FLOATING, AUTOMATIC

Termination of approval of Automatic floating electric water light, Dwg. A. E. F. 101-1 revised June 7, 1943 (formerly Contour-A-Form Equipment Co. Dwg. No. A), submitted by A. E. F. Water Light Corp., New York, N. Y. (Approved March 2, 1943, 8 F. R. 2605).

Termination of approval of Coslite automatic floating electric water light, Dwg. No. 10, revised July 22, 1943 (original Dwg. dated June 15, 1942), submitted by the Coston Supply Co., New York, N. Y. (Approved September 26, 1942, 7 F. R. 7616).

Termination of approval of Safe-T-Glo Type MG electric automatic floating water light, Dwg. No. E-451-7 Alt. 1, dated April 5, 1943, and revised July 24, 1943, submitted by C. C. Galbraith & Son, Inc., New York, N. Y. (Approved July 16, 1943, 8 F. R. 9841).

Termination of approval of Safe-T-Glo Type MG electric automatic floating water light, Dwg. E-551-1 dated April 7, 1943, and revised July 24, 1943, submitted by C. C. Galbraith & Son, Inc., New York, N. Y. (Approved July 16, 1943, 8 F. R. 9841.)

Conditions of Termination of Approval. The termination of approval of equipment made by this document shall be made effective as of December 31, 1948, in accordance with the provisions in 46 CFR 37.9-1. Electric water lights installed on board merchant vessels prior to January 1, 1949, may be continued in service so long as they are in good and serviceable condition.

Dated: November 24, 1948.

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

[F. R. Doc. 48-10489; Filed, Dec. 1, 1948;
8:50 a. m., 13 F. R. 7368, Dec. 2, 1948]

An American Tradition—SAFETY FOR ALL

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	
Murlin Manufacturing Co., Philadelphia, Pa.—Con.: Ceiling light, nonwatertight, 3 60-watt lamps maximum, drawing No. SP-27458-2, Alt. 0	X				12/29/48
Light panel, nonwatertight, 5 50-watt lamps maximum, drawing No. 1350, Alt. 0	X				12/29/48
Window reflector, nonwatertight, 2 40-watt lamps maximum, drawing No. 436-1, Alt. 0	X				12/29/48
Ceiling light, decorative watertight type, 1 60-watt lamp maximum, drawing No. 391, Alt. 2	X	X	X		12/29/48
Ceiling fixture, nonwatertight, 2 60-watt lamps maximum, drawing No. 957-A, Alt. 0	X				12/31/48
Lloyd E. Oneal, Jersey City, N. J.: Steering gear alarm panel for 2-motor service, Mendell Elec. Mfg. Co. drawing No. 5818½, Alt. 3	X	X			11/9/48
Oneal-Doran lighting fixture for mounting in deck over cargo oil pump room, waterproof, 1 94-watt lamp max., drawing No. 1232, Alt. 1	X	X	X		11/19/48
Pilot Marine Corp., New York, N. Y.: Salinity Indicator Panel, model 83A7, drawings 650J, Alt. 2, 651E, Alt. 0, and 652D, Alt. 0	X	X			11/19/48
Salinity Indicator Panel, model 83A5, drawings Nos. PM-650H, Alt. 3, PM-651D, Alt. 1, and PM-652C, Alt. 1	X	X			12/23/48
Salinity Cell, drawing No. PM-675A, Alt. 1	X	X			12/23/48
Salinity receptacle box and plug, drawing No. PM-648, Alt. 2	X	X			12/23/48
Salinity cell, valve, and receptacle assembly, drawing No. PM-647D, Alt. 0	X	X			12/23/48
Salinity indicator panel, model 83A1, drawing Nos. PM-652B, Alt. 4, PM-651B, Alt. 5, and PM-650G, Alt. 6	X	X			12/27/48
Pounds Equipment Co., New York, N. Y.: Berth light, fluorescent, nonwatertight, 1 14-watt lamp maximum, fixture No. L-8336, Luminator, Inc., drawing No. 8336, Alt. 0	X				10/6/48
Berth light, fixture Nos. L-8500, L-8501, and L-8502, nonwatertight, 1 40-watt lamp max., Luminator, Inc., drawing No. 8500, Rev. 1	X				12/10/48
Berth light, with rotating lens, fixture No. L-8505, 1 40-watt and 1 6-watt lamp max., nonwatertight, Luminator, Inc., drawing No. 8505, Rev. 1	X				12/10/48
Berth light, fixtures Nos. L-8316, L-8317, and L-8318, nonwatertight, 1 40-watt lamp max., Luminator, Inc., drawing No. 8316, Rev. 1	X				12/10/48
Ceiling fixture No. L-8278, nonwatertight, 1 40-watt lamp max., Luminator, Inc., drawing No. 8278, Rev. 3	X				12/10/48
Raymond Rosen Engineering Products, Inc., Phila., Pa.: Running light indicator panel, 8 circuit, 115 volts A. C., drawings Nos. 9-0037, Alt. B, and 6-0169, Alt. B	X	X			11/30/48
Sig-Trans, Inc., Amesbury, Mass.: Electric telegraph transmitter with reply, single engine, double face, 12", 115 volts A. C., 60 cycles, drawing No. B-103, Alt. 1	X	X	X		10/6/48
Electric telegraph transmitter with reply, double engine, 12", 115 volts A. C., 60 cycles, drawing No. B-106, Alt. 1	X	X	X		10/6/48
Electric telegraph transmitter with reply, single engine, single face, 12", 115 volts A. C., 60 cycles, drawing No. B-115, Alt. 1	X	X	X		10/6/48
Rudder angle transmitter, ratio 1 to 4, 115 volts, A. C., 60 cycles, drawing No. B-107, Alt. 1	X	X			10/6/48
Rudder angle indicator, 115 volts A. C., 60 cycles, drawing No. B-108, Alt. 1	X	X	X		10/6/48
The Simes Co., Long Island, New York: Deck fixture, type 17, nonwatertight, 2 100-watt lamps maximum, drawing No. 43885, Alt. 0	X				12/15/48
Table lamp, nonwatertight, 2 40-watt lamps max., drawing No. 44013, Alt. 0	X				11/1/48
Writing desk lamp, nonwatertight, 2 100-watt lamps max., drawing No. 43679, Alt. 0	X				11/2/48
Ceiling light, type D-5, modified, nonwatertight, 1 60-watt lamp max., drawing No. 43679 B, Rev. 0	X				11/8/48
Berth light, type L-9, nonwatertight, 1 25-watt lamp max., drawing No. 43900, Alt. 1	X				12/22/48
The Wenson Corp., Long Island City, New York: Disconnect switch, watertight, nonautomatic circuit breaker type, 250V D. C., 600V A. C., Cat. No. M1031, 100A, 2-pole; M1032, 100A, 3-pole; M-1033, 225A, 2-pole; M-1034, 225A, 3-pole; M-1035, 600A, 2-pole; M-1036, 600A, 3-pole, drawing No. M-103, Alt. 1	X	X	X		12/31/48
Power failure alarm panel for 2-engine electric telegraph, drawing No. M-101, Sh. 1 and 2, Alt. 1	X	X			12/31/48
Westinghouse Electric Corp., Washington, D. C.: Powerair marine fan, oscillating, 16", Cat. No. 16 PAM, 115 volts, 60 cycles, 0.75 ampere, nonwatertight, drawing No. 24-J-328, Sub. 1	X				11/5/48
Powerair marine fan, oscillating, 12", Cat. No. 12 PAM, 115 volts, 60 cycles, 1.1 ampere, nonwatertight, drawing No. 24-J-326, Sub. 1	X				11/5/48

Merchant Marine Personnel Statistics

MERCHANT MARINE LICENSES ISSUED DURING DECEMBER 1948

DECK OFFICERS

		Region								Total	
		Atlantic coast		Gulf coast		Great Lakes and rivers		Pacific coast			
		O	R	O	R	O	R	O	R	O	R
Master	(Ocean	26	91	4	29			13	54	43	174
	Coastwise	1	7	9	3			4	4	11	14
	Great Lakes			1	1	5		2	1	8	8
	B, S, & L.	3	22	2	2			3	4	8	29
	Rivers		1		5		13				19
Chief mate	(Ocean	27	28	9	6		1	13	11	49	60
	Coastwise		2	1	1					1	3
Second mate	(Ocean	25	18	17	9		2	7	10	49	39
	Coastwise	1			2					1	2
Third mate	(Ocean	13	62	4	5		6	4	10	21	83
	Coastwise							1		1	
Mate	(Great Lakes										
	B, S, & L.	1	3	1	1					6	2
	Rivers					3	2			3	2
Pilots	B, S, L, & R.	50	92	14	25	20	27	18	42	102	186
Master	Uninspected vessels	1						5	2	6	2
Mate	Uninspected vessels							8		8	
Total		148	326	62	89	23	60	73	145	306	620
Grand total		474		151		83		218		926	

ENGINEER OFFICERS

Steam	Chief engineer:	Unlimited	24	64	5	31		9	3	40	32	133	
		Limited	3	30	1	3		19	1	7	5	39	
	First assistant engineer:	Unlimited	13	27	7	7	1	1	6	23	27	61	
		Limited		2			1	3		3	1	8	
	Second assistant engineer:	Unlimited	20	50	5	10	1	3	10	20	35	83	
		Limited											
	Third assistant engineer:	Unlimited	52	35	1	6	1	7	4	12	58	60	
		Limited											
	Motor	Chief engineer:	Unlimited	2	16		5		4		9	4	34
			Limited	8	21	4	6	2	4	2	5	14	35
First assistant engineer:		Unlimited	1	3		1			2		3	4	
		Limited	1	1	1		1	1	1		4	2	
Second assistant engineer:		Unlimited	1	4			1				2	4	
		Limited			1		1				2	2	
Third assistant engineer:		Unlimited	47	31		1	1	9		20	48	61	
		Limited							1		1		
Uninspected vessels		Chief engineer							3		3		
		Assistant engineer							4		4		
Total		172	284	25	70	10	63	37	148	244	565		
Grand total		456		95		73		185		809			

ORIGINAL SEAMEN'S DOCUMENTS ISSUED MONTH OF DECEMBER 1948

Region	(1) Staff officer	(2) Contin- uous dis- charge book	(3) U. S. merchant mariner's documents	(4) AB any waters unlimited	(5) AB any waters 12 months	(6) AB Great Lakes 18 months	(7) AB tugs and low-boats any waters	(8) AB buoy and sounds †	(9) AB sea-going barges	(10) Life-boat-man	(11) Q. M. E. D.	(12) Radio operators	(13) Certificate of service	(14) Tanker-man
Atlantic coast	37	1	810	272	138	9	2			228	143	8	670	7
Gulf coast	2	66	171	75	26	2				97	57	2	181	17
Pacific coast	19		411	105	56	2				130	95	2	367	2
Great Lakes and rivers		3	146	14	32	10	1			25	49		124	15
Total	58	70	1,538	466	252	32	3	0	0	480	345	12	1,345	41

† 12 months, vessels 500 gross tons or under not carrying passengers.

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

WAIVERS OF MANNING REQUIREMENTS FROM DEC. 1 TO DEC. 31, 1948

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	10		1		7		3			12
Gulf coast	1				1					1
Pacific coast	2				1	1				2
Great Lakes	1						1			1
Total	14	0	1	0	9	1	5	0	0	16

NOTE.—In addition, individual waivers were granted to permit the employment of 16 able seamen holding certificates for "any water—12 months" in excess of the 50 percent authorized by general waiver.

CREW SHORTAGE REPORTS FROM DEC. 1 TO DEC. 31, 1948

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	4				1	2	1			1		1	2	8
Gulf coast														
Pacific coast	1										1			1
Great Lakes	115		4	8		34	3	2	7	8	11	52	27	159
Total	120	0	4	8	1	36	4	2	7	9	15	54	29	168

Casualties to Vessels, Fiscal Year 1948

(July 1, 1947-June 30, 1948)

	Groundings and foundering	Collisions with other vessels	Collisions with miscellaneous objects	Fire and explosions	Damage to lifesaving equipment	Heavy weather and matériel damage	Totals
Number of casualties	852	574	452	228	41	503	2,650
Number of vessels involved	852	1,200	452	228	41	503	3,276
Gross tonnage of United States merchant vessels	4,484,894	3,123,354	2,306,106	503,404	336,289	3,450,320	14,270,567
Number of inspected vessels	660	644	390	94	41	479	2,308
Number of uninspected vessels	192	556	62	134		24	968
Type of vessels involved:							
Passenger	13	25	15	5	1	17	77
Freight	423	337	251	54	36	340	1,441
Tank	203	217	92	23	2	104	641
Public vessels		65	5	1	1		71
Troops							
Ferry	10	16	12	1	1	8	48
Towing	50	173	57	32		17	329
Fishing	99	54	5	53		11	222
Foreign flag		152					152
Miscellaneous	54	101	15	59		6	161
Persons on board:							
Passengers	3,342	9,470	2,940	1,379	128	8,447	25,706
Crew	24,771	18,966	13,465	3,391	1,693	20,747	83,143
Value of property involved:							
Vessels	\$946,579,201	\$556,224,892	\$430,168,217	\$129,013,887	\$53,036,877	\$720,519,121	\$2,820,542,255
Cargoes	\$177,517,538	\$82,118,833	\$63,795,762	\$24,839,178	\$10,571,625	\$116,720,792	\$475,563,728
Number of vessels whose value is not given	100	277	55	12	8	68	520
Number of cargoes whose value is not given	176	307	79	22	13	122	719
Damages reported:							
Vessels	\$12,083,212	\$6,441,369	\$2,147,819	\$5,842,965	\$118,840	\$4,951,728	\$31,585,933
Cargoes	\$1,920,023	\$4,138,400	\$47,480	6,269,707		\$304,750	\$13,040,300
Number of vessels that did not report damage	35	156	19	5	4	38	257
Number of cargoes that did not report damage	21	121	8	8	3	13	174
Vessels totally lost:							
Inspected	13	7	1	10			31
Gross tonnage	21,682	5,398	757	9,048			36,885
Uninspected	108	13	12	73			206
Gross tonnage	9,163	234	557	1,377			11,331
Number of casualties due to personnel fault:							
Employed under license or certificate	69	75	32			15	191
Others	69	104	19	11		9	212
Lives lost in casualties:							
Passengers	116	18	12	123		16	35
Crew	117	26	16	37		3	199
Inspected vessels	68	5	13	23		3	112
Uninspected vessels	49	21	3	14			87
Assistance rendered by Coast Guard	73	14	4	35		12	138
Deaths not involving casualty to vessel:							
Passengers							66
Crew							369
Stevedores							13
Injuries to personnel not involving casualty to vessel (number of personnel incapacitated for more than 72 hours)							492

¹ Uninspected vessels.

² Inspected vessels, 2; uninspected vessels, 4.

NOTE.—Tabulation made on basis of casualty cases closed as of Sept. 30, 1948.

Distribution (SDL 36):

- A: a, b, c, d (2 ea.); remainder (1 ea.).
- B: c (14 ea.); g, l (5 ea.); e, f, h (3 ea.); d (2 ea.); remainder (1 ea.).
- C: All (1 ea.).
- D: All (1 ea.).
- E: None.
- List 141M.