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REPORT ON THE LIFESAVING APPLIANCES COMMITTEE AT INTERNATIONAL CONFERENCE

This report is a reprint of a part of the report of the United States Delegation at the International Conference on Safety of Life at Sea, held in London from April 23 to June 10, 1948, as published in the Department of State Publication 3282, International Organization and Conference Series I, 6, entitled "International Conference on Safety of Life at Sea, London, April 23–June 10, 1948."

The most important action of the committee was to extend the provisions concerning lifesaving appliances to cargo ships of 500 gross tons or over, including vessels engaged in the whaling industry and tankers.

The requirements laid down apply to all new vessels, and provision is made whereby each Administration should secure on its existing ships, "so far as this is practicable and reasonable, compliance with the requirements as to lifeboats, and substantial compliance with the other requirements."

A new definition was agreed upon which limits the length of a short international voyage to 600 miles between the last port of call in the country in which the voyage begins and the final port of destination. Each Administration is permitted, however, to allow short international voyage ships to make voyages up to 1,200 miles, provided the ships carry lifeboats for not less than 75 percent of the persons on board.

It was considered impracticable to increase the number of sets of davits fitted in ships engaged on short international voyages, but the committee proposed that the cubic capacity of the boatage on these ships could be increased in amounts varying from 0 in ships under 175 feet in length up to 10 percent in ships of 500 feet in length.

Only class I lifeboats are to be allowed on new ships in the future. The requirements of the 1929 convention as to motor lifeboats and other mechanically propelled lifeboats are extended as follows:

Passenger ships carrying 20 lifeboats or more.

Passenger ships carrying 14 to 19 lifeboats, inclusive.

Passenger ships carrying 13 or less number of lifeboats, and cargo ships of 1,600 tons gross tonnage and upwards.

Two motorboats of class A fitted with radio and searchlight (as in 1929 convention).

One motorboat of class A plus 1 motorboat of class B or other approved mechanically propelled lifeboat.

One motorboat of class B or other approved mechanically propelled lifeboat.

A class A motorboat must be powered by a compression ignition engine and be capable of a speed of 6 knots in smooth water. Class B motorboats may be powered by any type of engine (other than outboard motor) and must be capable of a speed of 4 knots in smooth water. All lifeboats certified to carry more than 60 persons, and which are not motorboats, are to be fitted with mechanical propulsion such as hand propelling gear.

On all new ships of over 150 feet in length the davits are to be either of the gravity or of the luffing types according to the weight of the lifeboats in the turning out condition.

The old convention requirements as to lifeboat radios are extended as follows:

Passenger ships carrying 20 lifeboats or more.

Passenger ships carrying 14 to 19 lifeboats, inclusive.

Passenger ships with 13 or less number of lifeboats, and cargo ships.

Two motorboats fitted with radio as under 1929 convention.

One motorboat fitted with radio, as under 1929 convention, plus one portable radio transmitter and receiver.

One portable radio transmitter and receiver.

Administrations may exempt ships on voyages of such short duration that they consider radio equipment can be dispensed with.

The requirements for lifeboat equipment have been revised in the light of modern practice and experience gained during the war. New items added include a manual pump, improved pyrotechnic signals, first aid outfit, flashlight, et cetera. Means are to be fitted to enable persons to cling to upturned lifeboats.

A limit of 400 pounds is placed on the weight of buoyant apparatus unless satisfactory means of launching without lifting by hand are provided. Life rafts may be carried in lieu of buoyant apparatus. Each cargo ship must carry at least eight life buoys, and life buoy lights in tankers are to be of the electric battery type. All ships are to carry approved line-throwing appliances capable of carrying a line 250 yards in calm weather.

All ships are to carry means of making effective distress signals by day and night, including pyrotechnic signals showing a bright red light at a high altitude.

The requirements of the 1929 convention are extended in that drills are to cover fire appliances as well as lifesaving appliances. On cargo ships these drills are to be held monthly.

As a general statement, it may be said that no provision of the 1929 convention was relaxed, that many provisions of that convention were revised upward, and that the 1948 convention will be a definite improvement upon its predecessor. While, in the main, the United States standards for lifesaving appliances are still higher than those proposed in the 1948 convention, there are a number of items, however, in the new convention which go beyond present United States standards. These include:

1. Mechanically propelled boats or motorboats on cargo vessels.
2. Only class I lifeboats to be used.
3. Class A motorboats must have compression ignition engines.
4. Life lines rigged from davit span for each boat.
5. All lifeboats to have perforated bilge keels or keel rails for clinging to when the boat is overturned.
6. Control of overboard discharge water into lifeboats.
7. The equipment of a lifeboat is amplified; for instance, three quarts of water a person must be carried instead of the one quart presently required by the United States, an attached painter in addition to the sea painter, a first-aid kit, and two buoyant heaving lines.
8. Improved distress signals are specified.
9. Lifeboat radios are specified for all ships.
10. Improved line-throwing appliances for all ships are required and a range of 250 yards is specified. This is beyond the effective range of similar United States appliances other than the Lyle gun which is by no means as efficient an appliance as that contemplated.

The extent to which the United States proposals with respect to lifesaving appliances met acceptance is shown in the following summary:

(*a*) Cargo vessels of 1,600 tons and above are added to the application of chapter III. *Accepted. Lower limit of 500 tons.*

(*b*) Cargo vessels to carry sufficient boatage on each side for all people aboard. *Accepted.*

(*c*) Only class I boats to be allowed on any vessel. *Accepted.*

(*d*) Definite performance requirements for lifeboats are made as to positive buoyancy, stability, and freeboard. *Accepted, except for specific freeboard requirement.*

(*e*) Maximum number lifeboat may carry to be determined by cubic measurement, seating capacity, and freeboard when fully loaded. The smallest number so arrived at shall govern. *Accepted, except for freeboard.*

(*f*) Each lifeboat carrying 60 or more shall be driven by propeller actuated by motor or by hand. *Accepted.*

(*g*) Passenger vessels shall carry a suitable rescue boat on each side. *Accepted.*

(*h*) Additional items of lifeboat equipment proven valuable by wartime experience are made mandatory. *Accepted without important omission.*

(*i*) Each new lifeboat is required to have simultaneous releasing gear, operable by one person. *Not accepted as mandatory; made optional.*

(*j*) Every vessel to carry at least one lifeboat radio-telegraph equipment. *Accepted, with escape clause for short voyages.*

(*k*) It shall be possible to turn out all davits and launch simultaneously one lifeboat from each pair of davits so that no lifeboat interferes with or fouls another. *Accepted.*

(*l*) Each lifeboat is to be attached to an approved set of davits. Only one boat to be served by one set of davits except on short voyage vessels. *Not accepted as mandatory, but principle accepted as desirable.*

(*m*) All new davits to be either mechanical or gravity type. *Accepted, except on vessels 150 feet or under.*

(*n*) Gravity davits to be provided for each lifeboat carrying 60 or more. *Accepted.*

(*o*) Wire falls and mechanical means for lowering for each lifeboat on (a) gravity davits, and (b) boat deck of passenger vessel 20 or more feet above light draft line. *Accepted, with escape clause.*

(*p*) Definite performance requirements for mechanical means for lowering are specified. *Not accepted.*

(*q*) Suitable means for hoisting lifeboats by power are to be provided. Cargo, or other, winches may be used. *Accepted, with escape clause.*

(*r*) Each vessel to carry 20 percent extra life jackets, and 10 percent of the total shall be suitable for children. *Not accepted.*

(*s*) Each new life jacket to be chrome yellow and have reflector or light. *Not accepted.*

(*t*) Each Administration to cause equipment or fittings calling for approval to be tested to insure conformity with requirements. *Not accepted.*

The following United States proposals dealt with muster lists and drills:

(*a*) Closing of fire doors, draft doors, and side ports. *Accepted.*

(*b*) The closing of dampers in air ducts and stopping of ventilating fans. *Not accepted.*

(*c*) Manning of equipment for extinction of fire. *Accepted.*

(*d*) Use of respiratory equipment for persons engaged in rescue work. *Accepted.*

(*e*) Muster list shall specify definite alarm signals including:

1. General fire alarm signal—continuous ringing of ship's bell not less than 10 seconds, and continuous ringing of general alarm bells not less than 10 seconds, together with announcement over public address system. *Accepted.*

2. Signal for calling emergency squads and other emergency signals to be established by master. *Not accepted.*

(*f*) Specified emergency equipment to be tested at drills. *Accepted.*

(*g*) Fire drill is added as a weekly drill. *Accepted for passenger ships; monthly for cargo ships.*

(*h*) Manner of holding drills under simulated emergency conditions is specified. *Accepted.*

(*i*) Weekly operation of motor lifeboat engines required. Fuel tanks to be completely emptied and fuel changed once a year. *Not accepted.*

Summarizing very briefly the proposals on manning, the United States proposed that each Administration determine how many officers and men are necessary for the safe navigation of each of its vessels coming within the convention, that these officers and men meet standards of professional and physical competence and be so certificated by the Administration, and finally that their hours of work be not so long as to constitute a hazard. *Not accepted.*

These proposals were originally brought up in the Lifesaving Appliances Committee, which committee referred them to the Safety of Navigation Committee. It may be reported here, however, that every other country at the conference was against opening any discussion on manning, and it was apparent that they felt that the economic and labor aspects were much too complicated and far-reaching to be dealt with by this conference regardless of its very real connection with safety at sea. The best that could be arrived at was a fairly innocuous recommendation by the conference that IMCO define its responsibilities and those of ILO in manning and that it consider the question of a minimum manning scale.

The proposal made by the United States in committee to the effect that only those vessels making genuinely short international voyages, such as cross-channel runs, be allowed to carry an unlimited number of passengers beyond their boatage was not accepted. One delegation wished to associate itself with the desirability of the proposal but nevertheless voted against it.

It is suggested that the scope of the next conference covering maritime safety be enlarged so as to cover not merely safety at sea but maritime safety in general, both at sea and in port. It will be remembered that cargo gear was not discussed at London because it was considered to apply more to safety in port than to safety at sea. Standardized port safety regulations is another item which would be a great benefit not only to safety but also to the general operation of world shipping. This is definitely an international field rather than a field of the various administrations which in many cases include states and municipalities. Until this is done, the principles laid down in the control provisions of the convention (old art. 54) could be meaningless.

INTERNATIONAL CONFERENCE ON SAFETY OF LIFE AT SEA

The report of the United States Delegation to the International Conference on Safety of Life at Sea, which was held at London from April 23 to June 10, 1948, has been issued by the Department of State. Copies of the publication may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., at a price of 55 cents per copy. The title of the book is "International Conference on Safety of Life at Sea, April 23–June 10, 1948."

The report includes reports of the various committees—the Construction, Life Saving Appliances, Safety of Navigation, Radio, and General Provisions Committees. Also included is the draft of the final act as it will be submitted to member nations for ratification.

REGULATIONS GOVERNING APPOINTMENTS OF MERCHANT MARINE OFFICERS AS COAST GUARD OFFICERS APPROVED

The regulations governing appointments of licensed officers of the United States Merchant Marine as commissioned officers, chief warrant officers, and warrant officers in the U. S. Coast Guard were published in the Federal Register November 30, 1948 (13 F. R. 7303 et seq.), and are also reprinted in this issue on page 216.

Those officers who consider themselves eligible and desire to apply for an appointment as a commissioned officer, chief warrant officer, or warrant officer in the United States Coast Guard should address a letter to the Commandant (PTP), United States Coast Guard, Washington 25, D. C., requesting an application (Form CG–10116). This application form should be completed in its entirety and mailed with all the inclosures required to the Commandant (PTP) at the above address. The Coast Guard will inform any applicant regarding eligibility to participate in examinations and he will be further informed as to when and where examinations will be conducted. All candidates will be notified at least 2 months prior to the date of examination. A candidate's application will be good for only a calendar year and those who desire to place their names on the new eligibility list for a following calendar year need only to reaffirm their desire and complete renewal of original application is not required.

To implement the procurement of officers and to provide for the general training and assignment of officers to merchant marine functions, the Commandant of the Coast Guard has determined certain general practices.

The induction of officers from the merchant marine is planned to be done once yearly.

The minimum qualifications for rank upon induction of merchant marine officers into the Coast Guard shall be as follows:

Lieutenant (junior grade).—The appointee must not have reached his thirtieth birthday on the date of commissioning and he must have a license as chief mate of ocean vessels, or chief mate of coastwise vessels, or chief mate and first class pilot of Great Lakes vessels, or mate and first-class pilot of western river vessels, or first assistant engineer of ocean vessels, or first assistant engineer of coastwise vessels (unlimited horsepower), or first assistant engineer of Great Lakes vessels (unlimited horsepower), or first assistant engineer of western river vessels (1,000 horsepower). The appointee must also have four or more years' service aboard a vessel of the United States in the capacity of a licensed officer.

Lieutenant.—The appointee must not have reached his thirty-fifth birthday on date of commissioning and he must have a license as master of ocean and coastwise vessels, or master and first-class pilot of Great Lakes or western river vessels, or chief engineer of ocean and coastwise vessels (unlimited horsepower), or chief engineer of Great Lakes vessels (unlimited horsepower), or chief engineer of western river vessels (1,000 horsepower). The appointee must have six or more years' service aboard a vessel of the United States in the capacity of a licensed officer, of which not less than 1 year must have been served as chief mate or first assistant engineer. Any person holding a degree from an accredited college or who is a graduate of the United States Merchant Marine Academy, a State schoolship, or a merchant marine academy requiring a 4-year course at study, may substitute such degree or diploma in lieu of 1 year of the required sea service other than the year required to be served as chief mate, or first assistant engineer. Experience ashore as assistant port captain, or assistant port engineer, or in a comparable position, may be substituted equally up to 2 years of the required sea service. However, substitutions of educational credits or supervising positions ashore may not work to reduce the required sea service below the 4 years required by law.

Lieutenant commander.—The appointee must not have reached his

fortieth birthday on the date of commissioning and he must have a license as master for ocean or coastwise vessels, or master and first-class pilot of Great Lakes or western river vessels, or chief engineer of ocean and coastwise vessels (unlimited horsepower), or chief engineer of Great Lakes vessels (unlimited horsepower), or chief engineer of western river vessels (1,000 horsepower). The appointee must have 12 or more years of service aboard a vessel of the United States in the capacity of a licensed officer and must have served as master or chief engineer for not less than 1 year. Any person holding a degree from an accredited college, or who is a graduate of the United States Merchant Marine Academy, a State schoolship, or a merchant marine academy requiring a 4-year course, may substitute such degree or diploma in lieu of 1 year of the required sea service other than the year required to be served as master or chief engineer. Experience ashore as assistant port captain, or assistant port engineer, or a comparable position thereto, may be substituted equally up to 5 years of the required sea service.

Eligible merchant marine officers who have had service aboard either United States Navy or Coast Guard vessels of suitable size in the capacity of either a deck or an engine-room watch officer, or in positions of greater responsibility insofar as navigation of the vessel is concerned, may present for consideration such experience as service aboard a vessel of the United States in the capacity of a licensed officer except that such service may not be substituted for the 4 years' service aboard a vessel of the United States in the capacity of a licensed officer required by Public Law 219, and in addition such United States Navy or Coast Guard service may not be substituted for the time required to be served as master, chief engineer, chief mate, or first-assistant engineer.

All future appointees from the merchant marine will be required to qualify themselves as general service officers. The seniority amongst a group of appointees whose seniority is not otherwise established by law or regulation will be on the basis of the score attained by each appointee after averaging the marks assigned for the academic examination, adaptability, and experience.

The career of an officer appointed from a merchant marine will be planned according to the following pattern during his 2 years probationary period:

Three months military indoctrination.

Nine months sea duty on a major cutter.

Three months shore duty in a district office, or major shore establishment not connected with merchant marine safety.

Three months merchant marine safety indoctrination.

Six months merchant marine safety duty.

The assignments after the 2 years probationary period is ended will be determined by the ability of the individual and the needs of the service. Present plans are as follows:

Three years merchant marine safety duty.

One to three years sea and shore duty in a function other than merchant marine safety. (Emphasis will be given to assignments for a period of approximately 1 year rather than for a longer time, although flexibility will be permitted for assignments to such duty up to 3 years.)

Three to five years merchant marine safety duty.

Sea duty for a period similar to that required of other officers of the same rank.

For further details of requirements governing appointments of licensed officers, see the regulations reprinted on page 216 in the Appendix. The regulations include the general requirements for eligibility, scope of examinations, and physical standards.

LICENSED OPERATORS FOR SHIPBOARD RADAR STATIONS

The Federal Communications Commission on November 10, 1948, issued an order that in effect extended the waiver of the provision of section 318 of the Communication's Act of 1934, as amended, which requires licensed radio operators for ship radar stations licensed in the Ship Service. A previous FCC order provided for the waiver of the requirement of section 318 for the period December 15, 1947, to November 15, 1948. The order of November 10, 1948, waives the requirement for the period from November 15, 1948, to the effective date of permanent rules adopted by the Commission governing operator license requirements for ship radar stations licensed in the Ship Service, or to April 15, 1949, whichever is earlier. The Federal Communications Commission is now preparing the permanent rules mentioned above.

Part of the text of the FCC order of November 10, 1948, is as follows:

IT IS ORDERED, That, effective November 15, 1948, the provisions of section 318, aforementioned, are hereby waived insofar as such provisions require any person to hold a radio-operator license issued by this Commission in order to operate ship radar stations licensed by this Commission in the Ship Service, provided that this waiver shall extend only to the normal operation of such radar stations on board ship and shall not be construed to permit unlicensed personnel to make any adjustments or to do any servicing or maintenance that may affect the proper operation of the station; provided further that this waiver shall not be construed to affect in any way the responsibility of the station licensee for the proper operation of the station; and provided further that the waiver herein ordered may, in the discretion of the Commission and without advance notice or hearing, be changed or cancelled by order of the Commission, and shall in no event extend beyond the effective date of permanent rules adopted by the Commission governing operator license requirements for ship radar stations licensed in the Ship Service, or beyond April 15, 1949, whichever is earlier.

MERCHANT MARINE OFFICERS AND THE UNITED STATES NAVAL RESERVE

The United States Maritime Commission has expressed the opinion that all the deck and engineer officers employed on vessels which receive an operating-differential subsidy shall, if eligible, be members of the United States Naval Reserve. Section 302 (g) of the Merchant Marine Act of 1936 was waived by the Coast Guard, but in accordance with an order published in the Federal Register on November 10, 1948, the provisions of this act again become effective on and after December 15, 1948. For additional information see Navigation and Vessel Inspection Circular No. 9–48 on page 231.

PILOT RULES

In order that the Coast Guard regulations in Title 33 Navigation and Navigable Waters of the Code of Federal Regulations, will be in the style prescribed by the regulations of the Administrative Committee of the Federal Register, all the regulations in Chapters III and IV of Title 33 have been renumbered and transferred to Chapter I. For further details on the renumbering of regulations, see the article published under the Appendix on page 216.

INVESTIGATING UNITS

Coast Guard Merchant Marine investigating units and merchant marine details investigated a total of 657 cases during the month of September 1948. Of this number charges were preferred involving 20 licensed and 54 unlicensed men. No hearings were held because examiners were not available.

LESSONS FROM CASUALTIES

BEFORE AND AFTER!

It has been said that one picture is worth a thousand words. On the front and back covers of this month's PROCEEDINGS are two pictures the study of which will tell more than pages of literature. The front cover picture is that of a trim little motorboat, running merrily along about its business. The picture on the back cover is of the same motorboat—afterwards.

The altered condition of this motorboat was caused by an explosion of gasoline vapors which had accumulated in the engine and bilge space.

The irony in this case is the fact that the vessel was fully equipped with all the requirements of the Motorboat Regulations, including natural and mechanical ventilation in the machinery space.

The circumstances immediately preceding the accident were, briefly: The mechanical ventilation was turned off, the engine had received too rich a mixture of gasoline which caused an overflow from the carburetor, the vessel was backing so that the natural ventilation failed to carry off the gasoline vapors as the ventilator cowls all faced forward. The source of vapor ignition was not determined; it may have been from the generator.

In the explosion and resulting fire seven passengers in the boat received very severe injuries and burns. Although the vessel was a total loss, two 100-gallon gasoline tanks which were lagged with asbestos did not explode or burn.

In the majority of cases explosions in engine spaces on motorboats occur when the motor is started after having been idle for some time. Usually there is a failure to ventilate the spaces prior to starting. Presumably in this instance the mechanical ventilation system had been used prior to starting and the bilges had been cleared of any gasoline vapors which may have been present. During the operation of the boat, however, natural ventilation could have been better provided for all conditions if the forward or after cowls had been trimmed aft if they were of the trimmable type.

In order to prevent explosions and fires of this nature, it is well to remember the characteristics of petroleum vapors when mixed with air. Many experiments have proved that the explosive range for petroleum vapors mixed with air starts at a point where 1 percent, by volume, of saturated petroleum vapors is mixed with 99 percent of air. The explosive range ends where the petroleum vapor is 6 percent and the air is 94 percent by volume. This very narrow range to produce explosive mixtures of petroleum vapors and air is evident in the delicate adjustment required for the carburetor of a car and the ease with which an automobile engine may be "flooded."

It should also be kept clearly in mind the tremendous volume of explosive gases which are produced by one unit of a petroleum product such as gasoline. One cubic foot of gasoline will produce 8,000 cubic feet of explosive vapors or gas. Or 1 gallon of gasoline will produce 8,000 gallons of explosive gas. A half pint of gasoline allowed to vaporize in the bilge or other closed compartment may create a potential explosive power of 5 pounds of dynamite.

It must be distinctly borne in mind that all petroleum vapors are heavier than air and consequently accumulate in the lowest part of the spaces containing them, where, being below head level, they are not readily detected by sense of smell and are unsuspected. It is imperative to prevent the accumulation of explosive mixtures, first by keeping gasoline leakage or spillage to an absolute minimum; second, by providing adequate means for ventilating closed compartments and bilges; and third, to eliminate all sources of vapor ignition from spaces containing possible explosive mixtures.

A résumé of all the requirements applicable to motorboats operated for pleasure purposes only is contained in a Navigation and Vessel Inspection Circular No. 8–48 entitled "Safety Requirements for Motorboats Operated for Pleasure and Commercial Fishing Purposes and the Requirements for the Numbering and Recording of Undocumented Vessels," which is reprinted on page 227 of this issue. The requirements for ventilation on various types of motorboats and certain motor vessels as well as the Coast Guard's recommendations are also contained in a pamphlet entitled "Motorboat Regulations." This information may be obtained upon request to any Officer in Charge, Marine Inspection, United States Coast Guard, in many of the major ports of the United States, or the Commandant (HA), United States Coast Guard, Washington 25, D. C.

RECKLESS NAVIGATION

On the night of July 28, 1946, in the vicinity of Caruthersville, Mo., a ferry barge in tow of a motorboat, while crossing the Mississippi River, collided with the forward barge of a tow consisting of two barges in tandem formation being pushed by two other motor towboats. This collision resulted in the loss of the motorboat and 11 lives.

The motorboat was secured to the starboard side about amidship of the ferry barge. The usual manner in crossing the river from the Tennessee side to the Missouri side, was on leaving the landing to proceed downstream until opposite a landing point off the Missouri side, then to turn to starboard and head toward the landing. On the trip, in which the accident occurred this course was followed. The ferry was loaded with 5 motor vehicles and 24 passengers. The crew consisted of an operator who served as master and pilot, and a deck hand.

The other tow, as described above, was proceeding upstream and about 150 yards offshore on the Missouri side of the river. Both tows had each other in sight from the time the motorboat and tow departed from the Tennessee landing.

When the ferry was approximately opposite its landing it turned to the right and headed for the shore. This change placed the ferry on a course which crossed in front of the other tow. The pilot of the ferry did not see the barges ahead of the towboat and presumed he could pass safely, and only discovered his peril when the searchlight of the other towboat was flashed on the barges. Then it was too late, and although the motorboat endeavored to speed up its engine, and the engines of the other tow were stopped, the head barge struck the motorboat, crushing it and capsizing the ferry barge. The 5 automobiles and the 24 passengers were thrown into the river. Although prompt action was taken, it was only possible to rescue 13 passengers.

It appears that the other tow had flashed its searchlight two times as a signal for a starboard passing, but this signal was either not observed or was ignored by the pilot of the motorboat.

The following conclusions were reached as a result of this investigation: Certain similarity exists between this case and a case involving two vessels which collided in Baltimore harbor while being navigated under con-

ditions which gave rise to a crossing situation. The Supreme Court, in its decision, stated its position in relation to the rules governing such cases as follows:

> The plain purpose of the Inspectors' Rules is to minimize the danger of collision. The so-called privileged vessel has no absolute right to keep her course and speed regardless of the danger involved in that action. Her right to maintain her privilege ends when there is danger of collision and in the presence of that danger both vessels must be stopped and backed if necessary, until signals for passing with safety are made and understood.

It is believed that this decision applies with full force and effect in the instant case, and therefore it was incumbent upon the pilots involved, in the face of the dangerous situation that arose prior to the collision, to abide by the plain terms of the Pilot Rules, to stop, and, if necessary, back their respective vessels until, as stated in the cited decision, signals for passing with safety had been made and understood. Their failure to take such action led, inevitably, to the collision that ensued and to the tragic and wholly unnecessary loss of 11 lives.

The motorboat with ferry barge tow was at fault in that—

(*a*) While having the other vessel on her port bow, she failed to hold her course and speed, as she was required to do by statutory rule 23 and section 332.9 of the Pilot Rules.

(*b*) She failed to give the appropriate whistle signal indicating her intention to cross the bow of the other tow, as she was required to do by section 332.9 of the Pilot Rules.

(*c*) When danger of collision impended through the failure of each vessel to make clear its intentions to the other, she failed to blow the alarm signal, stopping, and backing if necessary, until signals for passing with safety were made and understood, as she was required to do by section 332.9 of the Pilot Rules.

(*d*) She failed to carry on her inboard side the side lights required by the Pilot Rules.

The other vessel with tow was at fault in that—

(1) While having the other vessel on her starboard bow, she failed to keep out of the way of the other, as she was required to do by statutory rule 19 and section 332.9 of the Pilot Rules.

(2) When danger of collision impended through failure of both vessels to make clear their intentions to the other, she failed to blow the alarm signal, stopping, and, if necessary, backing, until signals for passing with safety were made and understood, as she was required to do by section 332.9 of the Pilot Rules.

(3) She failed to carry on her inboard side the side lights required by the Pilot Rules.

The requirements of the law which operate to relieve the other vessel and the motorboat and ferry barge from carrying licensed officers also excluded them from the annual inspection and certification to which steam vessels engaged in similar service are subject; and, further the ferry barge, was likewise not subject to the inspection and certification inasmuch as the ferry barge was regularly engaged in tow by a motor vessel.

The circumstances and testimony in this case make it inescapable that the principals involved are not sufficiently conversant with the rules of the road to be entrusted with the pilotage of vessels involving the lives and property of others. Despite the many years of experience on western river waters possessed by both of these men, their apparent unfamiliarity with the requirements of the law and the obligations of good seamanship established them as unsafe river pilots. The conclusion has been reached that of the blame to be assigned for this tragedy, the pilot of the motorboat and ferry barge must bear the greater share.

Among other things the board made the following recommendation:

> The board was impressed with the disregard for the fundamental principles of caution and good seamanship which was exhibited by the pilots of both vessels. Both pilots violated the most elementary rules of the road governing crossing situations; and it appears that strict compliance by either of them would have served to prevent the collision.

Punitive action is decidedly limited by the statutes. The applicable provisions seem only to include R. S. 4413 (46 U. S. C. 381) which states:

> Every pilot, engineer, mate, or master of any steam vessel who neglects or wilfully refuses to observe the regulations established in pursuance of the preceding section shall be liable to a penalty of $50 and for all damages sustained by any passenger in his person or baggage, by such neglect or refusal.

And the Motorboat Act of 1940, section G, which provides that:

> Any person who shall operate any motorboat or any vessel in a reckless or negligent manner so as to endanger the life, limb, or property of any person shall be deemed guilty of a misdemeanor and on conviction thereof by any court of competent jurisdiction shall be punished by a fine not exceeding $2,000 or by imprisonment for a term of not exceeding 1 year or by both such fine and imprisonment at the discretion of the court.

Acting upon the recommendation of the board, the Coast Guard referred this case to the United States Attorney General.

Trials were held in the United States District Court at Cape Girardeau, Mo., resulting in a finding of guilty of reckless and negligent navigation, as charged, under the provisions of section 526 (m) of title 46, United States Code, against the pilot of the motorboat with ferry barge. The pilot of the other motorboat was found not guilty of a similar charge.

Watertight Doors

A watertight bulkhead is a bulkhead which has no opening in it. A bulkhead fitted with a watertight door is a watertight bulkhead only to the extent that the vessel's personnel insure, by precept and inspection, that the door is closed and securely dogged. Otherwise it is a delusion.

When a door must be opened while at sea the safety value of the entire bulkhead is lost during such time as the door is open. It might just as well not in the ship.

Where a door must be repeatedly opened and closed, as for example, a shaft alley door, it is human nature to become careless. If the door operates stiffly, its whole purpose may be lost sight of in the desire to avoid a little effort. Every man on the ship may be jeopardized by such neglect. The particular individual who temporarily vitiates the integrity of a bulkhead should be concerned with its restoration at the earliest possible moment. The responsible officer authorizing or supervising such opening should satisfy himself of its adequate closing.

PREVENT FIRES

Put out cigarettes, cigars, and matches.

Replace frayed and worn electric cords.

Eliminate all breeding places of fire.

Visit suspected fire traps frequently.

Educate all hands in fire-prevention methods.

Never use any but safety matches aboard ship.

Training in fire fighting pays dividends.

Fire-fighting equipment should be adequate.

Inspect equipment frequently.

Refill and examine empty extinguishers.

Educate personnel in latest fire-fighting methods.

SAFETY ALWAYS.

APPENDIX

Amendments to Regulations

TITLE 33—NAVIGATION AND NAVIGABLE WATERS

Chapter I—Coast Guard, Department of the Treasury

REORGANIZATION AND RENUMBERING OF MATERIAL FORMERLY CODIFIED IN CHAPTERS I, III, AND IV

EDITORIAL NOTE: In order to conform Chapters I, III, and IV of Title 33 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 effective October 12, 1948 (13 F. R. 5929), the following editorial changes are made, effective upon their publication in the Federal Register:

1. Chapters I, III, and IV are renumbered and consolidated into a new chapter under the headnote "Chapter I—Coast Guard, Department of the Treasury."

2. Certain parts and sections are renumbered as follows:

Old part No.	New part No.	Old section No.	New section No.
1	1	(1)	(1)
2	110	(1)	(1)
3	105	(1)	(1)
4	(See 30, 33, 45).		
5	5	(1)	(1)
8	8	(1)	(1)
11	50	(1)	(1)
12	52	(1)	(1)
14	51	(1)	(1)
16	16	(1)	(1)
20	20	(1)	(1)
	30	4.10	30.01
		4.11	30.05
		4.12	30.10
		4.13	30.15
		4.14	30.20
		4.15	30.25
		4.16	30.30
		4.17	30.35
		4.18	30.40
		4.19	30.45
		4.20	30.50
		4.21	30.55
		4.22	30.60
	33	4.23	33.01-1
		4.24	33.01-5
40	40	(1)	(1)
	45	4.25	45.01
		4.26	45.05
		4.27	45.10
		4.28	45.15
		4.29	45.20
		4.30	45.25
		4.31	45.30
		4.32	45.35
		4.33	45.40
		4.34	45.45
		4.35	45.50
302	82	(1)	(1)
303	100	(1)	(1)
304	84	(1)	(1)
312	80	(1)	(1)
322	90	(1)	(1)
323	92	(1)	(1)
332	95	(1)	(1)
402	62	(1)	(1)
403	66	(1)	(1)
404	68	(1)	(1)

[1] No change in numbers to the right of decimal point.

3. As so renumbered the material is reorganized under nine subchapters as follows:

SUBCHAPTER A—GENERAL

Part
1 General Organization and Jurisdiction
5 Regulations, United States Coast Guard Auxiliary
8 Regulations, United States Coast Guard Reserve
16 Regulations for Receipt of Donations for Chapel, Coast Guard Academy
20 Procedures Applicable to the Public

SUBCHAPTER B—MILITARY PERSONNEL

30 Appointments of Officers
33 Appointments of Civilians as Commissioned Officers, Chief Warrant Officers, and Warrant Officers
40 Cadets of the Coast Guard
45 Enlistments
50 Coast Guard Retiring Review Board
51 Regulations for Panel and Boards on Review of Discharges and Dismissals of Former Members of the Coast Guard
52 Regulations for Board on Correction of Military Records of the Coast Guard

SUBCHAPTER C—AIDS TO NAVIGATION

62 Aids to Navigation
66 Lighting of Bridges
68 Vessels

SUBCHAPTER D—NAVIGATION REQUIREMENTS FOR CERTAIN INLAND WATERS

80 Pilot Rules for Inland Waters
82 Boundary Lines of Inland Waters
84 Towing of Barges

SUBCHAPTER E—NAVIGATION REQUIREMENTS FOR THE GREAT LAKES AND ST. MARY'S RIVER

90 Pilot Rules for the Great Lakes
92 Anchorage and Navigation Regulations; St. Mary's River, Michigan

SUBCHAPTER F—NAVIGATION REQUIREMENTS FOR WESTERN RIVERS

95 Pilot Rules for Western Rivers

SUBCHAPTER G—MARINE REGATTAS OR MARINE PARADES

100 Regulations to Promote the Safety of Life on Navigable Waters During Regattas or Marine Parades

SUBCHAPTER H—ROUTES FOR PASSENGER VESSELS

105 Publication of North Atlantic Passenger Routes

SUBCHAPTER I—CONSERVATION OF MARINE LIFE

110 Whaling

[Published in Federal Register Nov. 30, 1948, 13 F. R. 7303.]

SUBCHAPTER B—MILITARY PERSONNEL

[CGFR 48-37]

PART 33—APPOINTMENTS OF CIVILIANS AS COMMISSIONED OFFICERS, CHIEF WARRANT OFFICERS, AND WARRANT OFFICERS

SUBPART 33.05—APPOINTMENTS OF LICENSED OFFICERS OF THE UNITED STATES MERCHANT MARINE AS COMMISSIONED OFFICERS, CHIEF WARRANT OFFICERS, AND WARRANT OFFICERS

The following regulations are prescribed and shall be effective on and after the date of publication of this order in the Federal Register:

Sec.
33.05-1 Purpose.
33.05-3 Appointments.
33.05-5 Precedence.
33.05-7 General requirements for eligibility.
33.05-9 Specific requirements for commissioned officers.
33.05-11 Exceptions to general and specific requirements for commissioned officers.
33.05-13 Specific requirements for chief warrant and warrant officers.
33.05-15 Scope of examinations.
33.05-17 Procedure for making application.
33.05-19 Determination of eligibility and notification for examination.
33.05-21 Conducting of examination.
33.05-23 Notification.
33.05-25 Requirements for examination and re-examination.
33.05-27 Physical standards.

AUTHORITY: §§ 33.05-1 to 33.05-27 issued under section 8, 18 Stat. 127, as amended, and sections 3, 4, 5, 6, and 7, 61 Stat. 410-412; 14 U. S. C., 6c, 6d, 20a-1, 20a-2, 21a and 92.

NOTE: The text of §§ 33.05-1 to 33.05-27 is also contained in the "Regulations Governing Appointments of Licensed Officers of the United States Merchant Marine to Commissioned, Chief Warrant and Warrant Rank in the United States Coast Guard," which may be obtained upon request from the Commandant (PTP), U. S. Coast Guard Headquarters, Washington 25, D. C.

§ 33.05-1 *Purpose.* The regulations in this subpart govern the appointments of licensed officers of the United States Merchant Marine as commissioned officers, chief warrant

officers, and warrant officers in the United States Coast Guard.

§ 33.05–3 *Appointments.* The appointments will be made in ranks or specialties appropriate to the qualifications and experience of the applicants. Any person who accepts such an appointment as a commissioned officer shall serve a probationary period of two years. During this period his commission may be revoked if his services are unsatisfactory. The commissioned officer while serving a probationary period will be subject to the same rules of conduct and performance of duty as are applicable to all officers in the Coast Guard.

§ 33.05–5 *Precedence.* (a) Officers appointed under this subpart who, during any period of World War II, did not serve temporarily as commissioned officers of the Coast Guard, or as commissioned officers who were regular members of the Coast Guard Reserve, shall take precedence with other officers in their respective ranks in accordance with the dates of commission in such ranks. Appointees whose dates of commission are the same shall take precedence with each other in the order recommended by the selecting and examining board as approved by the Secretary of the Treasury.

(b) Officers appointed under this subpart who, during any period of World War II, served temporarily as commissioned officers of the Coast Guard, or as commissioned officers who were regular members of the Coast Guard Reserve on active duty, shall assume a lineal position on the precedence list of regular Coast Guard officers as determined by the following formulae:

(1) The highest grade in which the appointee served on active duty for a period of at least three months, and the date of rank held while so serving will be determined.

(2) The date of rank determined by subparagraph (1) of this paragraph will be adjusted by adding thereto one-half of the period of time served in inactive Reserve status since release from active duty or one half of the period of time served on active duty as a chief warrant officer, warrant officer, or enlisted man of the Coast Guard, since termination of temporary commissioned status, plus any period of time since release from active duty, or termination of temporary commissioned status, during which the appointee had no Coast Guard or Coast Guard Reserve status.

(3) If the grade determined by subparagraph (1) of this paragraph is captain, and the adjusted date of rank as such is subsequent to March 25, 1945, the adjustment will be made upon the appointee's former date of rank in the grade of commander, and the appointment will be made in the latter grade.

(4) If the grade determined by subparagraph (1) of this paragraph is commander, and the adjusted date of rank as such is subsequent to March 15, 1944, the adjustment will be made upon the appointee's former date of rank in the grade of lieutenant commander, and the appointment will be made in the latter grade.

(5) If the grade determined by subparagraph (1) of this paragraph is lieutenant commander, and the adjusted date of rank as such is subsequent to April 1, 1944, the adjustment will be made upon the appointee's former date of rank in the grade of lieutenant, and the appointment will be made in the latter grade.

(6) If the grade determined by subparagraph (1) of this paragraph is lieutenant, and the adjusted date of rank as such is subsequent to January 1, 1944, the adjustment will be made upon the appointee's former date of rank in the grade of lieutenant (junior-grade), and the appointment will be made in the latter grade.

(7) If the grade determined by subparagraph (1) of this paragraph is lieutenant (junior-grade) or ensign, the appointment will be made in the grade determined.

(8) Precedence will be established in accordance with the adjusted date of rank in the grade to which appointed. If there is any officer on active duty in the same grade with the same date of rank, the appointee shall take precedence next after him, or next after the most junior of such officers if there is more than one.

(9) If the adjusted date of rank of two or more appointees is identical, the lineal position among them will be determined in accordance with their relative seniority on January 1, 1946, or at the time of release of the first officer released from active duty, whichever is the earlier.

(10) In the event that the Secretary of the Treasury finds that the grade and precedence determined for any person who, during any period of World War II, served temporarily as a commissioned officer of the Coast Guard is such that the position of the appointee on the lineal list would be manifestly in disagreement with the established precedence of other officers, the Secretary may establish a different precedence which is better suited to the established precedence of other officers and shall assign a date of rank which will correspond to that precedence.

(11) In the event that the permanent regular officer next senior to the appointee, who has not failed to qualify for permanent promotion, is serving in that grade under an appointment for temporary service, the appointee will be permanently commissioned in the next lower grade with such date of rank as will afford him the same relative precedence, and then be advanced for temporary service to the grade as determined by this section.

(12) Notwithstanding the provisions of subparagraphs (1), (2), (3), (4), (5), (6), (7), (8), (9), (10) and (11) of this paragraph, any Reserve officer who is appointed to permanent commissioned grade in the regular Coast Guard, and who has served continuously on active duty since March 1, 1948, shall have the date of rank and precedence which was established for him as of that date.

§ 33.05–7 *General requirements for eligibility.* In order to be considered for appointment as a commissioned officer, chief warrant officer, or warrant officer in the Coast Guard, an applicant must:

(a) Be a male citizen of the United States.

(b) Reach at least his 21st birthday in the year in which application is made. No applicant will be commissioned who has not reached his 21st birthday.

(c) Not reach his 40th birthday in the year in which application is made. No applicant will be commissioned who has reached his 40th birthday.

(d) Satisfy the Commandant of the Coast Guard as to his good moral character. No person who has been convicted of a felony is eligible for appointment as a commissioned officer, chief warrant officer, or warrant officer.

(e) Be physically sound, not less than five feet six inches in height, stripped, nor more than six feet four inches in height, stripped.

(f) Meet specific requirements of the grade for which considered.

§ 33.05–9 *Specific requirements for commissioned officers.* In order to be considered for appointment as a commissioned officer in the Coast Guard, an applicant must:

(a) Have served four or more years aboard a vessel of the United States in the capacity of a licensed officer.

(b) Receive a satisfactory grade in a written examination in each of the following subjects:

(1) Laws and regulations pertaining to the United States Merchant Marine.

(2) Mathematics.

(3) English.

(4) General science.

(5) Ship construction.

(6) Tests of emotional stability, social adjustment, vocational interest, study habits, background, or personality characteristics as may be administered.

(c) If a licensed deck officer, receive a satisfactory grade in a written examination in each of the following additional subjects:

(1) Navigation.

(2) Seamanship.

(d) If a licensed engineer officer, receive a satisfactory grade in a written examination in each of the following additional subjects:

(1) Marine engineering.

(2) Electrical engineering.

(e) Be interviewed by a Board of at least three Coast Guard officers of the rank of Lieutenant Commander or above, who will assign the applicant a mark in general adaptability.

(f) Meet physical standards prescribed for original entry into the United States Coast Guard as outlined in § 33.05–27.

§ 33.05–11 *Exceptions to general and specific requirements.* Notwithstanding the limitations prescribed in §§ 33.05–7 (c) and 33.05–9 (b), (c) and (d), the Commandant may, when the needs of the Service so require, recommend to the Secretary of the Treasury the appointment of an individual possessing outstanding professional qualifications for a particular assignment requiring special knowledge which is not available in the commissioned corps of the Coast Guard.

§ 33.05–13 *Specific requirements for chief warrant and warrant officers.* In order to be considered for appointment as a chief warrant officer or warrant officer in the Coast Guard, an applicant must:

(a) Be a licensed officer of the United States Merchant Marine.

(b) Receive a satisfactory grade in a written examination in each of the following subjects:

(1) Laws and Regulations pertaining to the United States Merchant Marine.

(2) Mathematics.

(3) English.

(4) Tests of emotional stability, social adjustment, vocational interest, study habits, background, or personality characteristics as may be administered.

(c) Receive a satisfactory grade in a written examination in the specialty for which application is being made.

(d) Be interviewed by a Board of at least three Coast Guard officers of the rank of Lieutenant Commander or above who will assign the applicant a mark in general adaptability.

(e) Meet physical standards prescribed for original entry into the U. S. Coast Guard as outlined in § 33.05–27.

§ 33.05–15 *Scope of examinations*—(a) *General.* The scope of the examinations listed in §§ 33.05–9 and 33.05–13 are described generally in this section. The examination in any one subject may not cover all the topics described under that subject. However, to insure adequate preparation for the examination, all topics should be studied.

(b) *Laws and regulations pertaining to the United States Merchant Marine.* The topics included are: Lifesaving apparatus; safety equipment; regulations governing safety and comfort of passengers and crews; pratique; annual and special inspections; notices to be posted; procedures in disputes and casualties.

(c) *Mathematics.* The topics included are: Principles and theorems of algebra, plane geometry, and plane trigonometry, with practical problems therein.

(d) *English.* The topics included are: Principles of English grammar and composition; clearness, effectiveness, and correctness of expression; spelling; punctuation; demonstration of ability to write clear and well organized paragraphs in a short essay or composition on a work of literature, or a recent current event.

(e) *General science.* The topics included are: Basic principles of physics and chemistry, with practical problems therein.

(f) *Ship construction.* The topics included are: Hull systems, structure, fittings and equipment; buoyancy; stability; ship maintenance, preservation, and repair; subdivision; damage and control thereof; shipyard practices.

(g) *Navigation.* The topics included are: Use and care of instruments used in navigation; definitions of nautical astronomy; buoyage system of the United States; piloting; principles of compass compensation; practical problems in determining latitude, longitude, azimuths, compass error, times of sunrise and sunset, and tides and currents.

(h) *Seamanship.* The topics included are: Types and characteristics of ships and boats; ropes, knots, and splices; standing and running rigging; ground tackle; deck seamanship; watchstanding; signals; rules of the road; weather; ship handling.

(i) *Marine engineering.* The topics included are: Descriptions and principles of operation of marine boilers and fittings, turbines, steam reciprocating engines, internal combustion engines, and fireroom and engineroom auxiliaries; lubrication; maintenance and repair.

(j) *Electrical engineering.* The topics included are: Definitions; measurements; magnets and magnetism; Ohm's Law; Kirchoff's Laws; solutions of D. C. networks; D. C. generators; D. C. motors; inductance, capacitance, and impedance; power factor; A. C. measurements; solutions of A. C. networks; A. C. generators; A. C. motors; safety precautions; batteries.

§ 33.05–17 *Procedure for making application.* (a) Those persons who consider themselves eligible under the regulations in this subpart and desire to apply for an appointment as a commissioned officer, chief warrant officer, or warrant officer in the U. S. Coast Guard should address a letter to the Commandant (PTP), United States Coast Guard, Washington 25, D. C., requesting an application, Coast Guard form CG–10116.

(b) Coast Guard form CG–10116 shall be completed in its entirety and mailed, with all the inclosures required, to the Commandant (PTP), U. S. Coast Guard, Washington 25, D. C.

§ 33.05–19 *Determination of eligibility and notification for examination.* (a) Upon receipt of Coast Guard form CG–10116 and inclosures at Coast Guard Headquarters, a determination will be made as to whether the applicant is eligible to participate in examinations for appointment as commissioned officer, chief warrant officer, or warrant officer in the Coast Guard. A list will then be prepared of those applicants who are in all respects qualified to compete in any examinations to be held in the calendar year in which application is made.

(b) When it is determined when examinations are to be conducted, all candidates on the list will be notified at least two months prior to the date of the examination. Instructions will be issued as to place, time, schedule of examination, etc.

(c) Lists of candidates eligible to take examinations are good only for a calendar year, and if the needs of the Coast Guard do not require the holding of the examination during any calendar year applicants on the list will be so notified. Applicants who desire to place their names on the new eligibility list for the following calendar year need only to re-affirm their desire and their names will be placed on the list. Complete renewal of original application is not required.

§ 33.05–21 *Conducting of examinations.* (a) Examinations will be conducted at various centers throughout the country. The schedule of examinations will normally be as follows:

(1) Commissioned officers.

First day: 8:00 a. m. to 12 noon—Laws and Regulations pertaining to the United States Merchant Marine; Mathematics; 1:00 p. m. to 4:30 p. m.—English; Aptitude Tests.

Second day: 8:00 a. m. to 12 noon—Navigation; Seamanship or Marine Engineering; Electrical Engineering; 1:00 p. m. to 4:30 p. m. Ship Construction; General Science.

Third day: 8:00 a. m. to 12 noon—Interviews.

(2) Chief warrant officers and warrant officers.

First day: 8:00 a. m. to 12 noon—Laws and Regulations pertaining to the United States Merchant Marine; Mathematics; 1:00 p. m. to 4:30 p. m.—English; Aptitude Tests.

Second day: 8:00 a. m. to 12 noon—Examination in Specialty; 1:00 p. m. to 4:30 p. m.—Interviews.

(b) Each candidate will appear before a Board of three commissioned officers of the Coast Guard, of the rank of Lieutenant Commander or above, for an interview. The Boards will be appointed by the Commanders of the Coast Guard Districts in which examinations are being conducted. Based upon this interview each applicant will receive a grade which reflects the judgment of the Board as to his adaptability for service as a Coast Guard commissioned or warrant officer.

§ 33.05–23 *Notification.* (a) All examination papers will be graded and reviewed, and adaptability of applicants for entrance into the Coast Guard determined by a Board of officers, Coast Guard Headquarters, Washington, D. C. This Board will be appointed by the Secretary of the Treasury and the Board's findings, when approved by the Secretary, are final.

(b) Applicants for appointments as commissioned, chief warrant, or warrant officers in the Coast Guard who are determined to be mentally and morally suited for the appointment will be so notified and directed to report for a final physical examination.

(c) When the results of the final physical examinations are received at Coast Guard Headquarters and it is determined that eligible applicants are physically qualified, they will be so notified.

(d) All candidates for appointments as commissioned, chief warrant, or warrant officers in the Coast Guard who are found to be not mentally, morally, or physically qualified for the appointment will be so notified.

(e) Appointments to commissioned, or chief warrant officer rank, will be made by the President, by and with the advice and consent of the Senate. Appointments to warrant officer rank will be made by the Secretary of the Treasury. Appointments will be offered to successful candidates to such extent as the needs of the Coast Guard require. Upon acceptance by the candidate he will be ordered immediately to active duty in the Coast Guard.

§ 33.05–25 *Requirements for examination and re-examination.* (a) All expenses in connection with application, physical examination, and travel to point of examination and interview must be borne by the candidate. Examinations will be given at specified times and places. Candidates will be given sufficient notice to arrange their personal affairs for the time necessary for examination.

(b) Examinations will be held simultaneously for all approved applicants and no exceptions will be made to permit holding special examinations at another time if a candidate is unable to participate in the scheduled examination. All candidates will be notified as promptly as possible as to the results of the examinations.

(c) Candidates who have failed an examination will be permitted to undertake subsequent examinations if they are, in all other respects, qualified for consideration for appointment in the United States Coast Guard.

§ 33.05–27 *Physical standards.* Examining medical officers in the field will prepare medical certificates on applicants in strict accordance with the regulations in this subpart. They have no authority to deviate in any respect from the requirements. The medical certificates will contain the actual facts as disclosed by the physical examination, together with the opinion of the examining physicians as to whether or not the candidate is physically qualified for appointment. Final determination as to physical qualification based on the facts disclosed by this report and the opinion of the examining medical officers will be made by the Commandant. The following are the general disqualifications, but it is impossible to specify every disease or condition which would disqualify an applicant, and an applicant will be rejected in case he presents any disease or physical condition which manifestly renders him unfit for duty, although such disease or condition may not be specifically mentioned herein:

(a) Any acute disease.

(b) Mental infirmities: Insanity; idiocy; imbecility; dementia; feeblemindedness.

(c) Diseases of the cerebrospinal system: Epilepsy; chorea; all forms of paralysis; tabes dorsalis; neuralgia; stuttering or other impediment of speech.

(d) Constitutional diseases: Feebleness of constitution; poor physique; impaired general health; suspected tuberculosis or syphilis. Wassermann test is obligatory in all cases.

(e) The skin: All chronic, contagious, and parasitic diseases of the skin; extensive nevi; deep and adherent cicatrices; chronic ulcers; vermin.

(f) The head: Abnormally large head; considerable deformities the consequence of fracture; serious lesions of the skull, the consequence of complicated wounds or the operation of trephining; caries and exfoliation of the bone; injuries of cranial nerves; tinea capitis; alopecia; performation or marked deviation of nasal septum; ozena; nasal polypi; chronic nasal catarrh.

(g) The spine: Caries; spina; bifida; lumbar abscess; rickets; fracture and dislocation of the vertebra; angular curvatures, including gibbosity of the anterior and posterior parts of the thorax.

(h) The ears: Deafness of one or both ears; all catarrhal and purulent forms of acute and chronic otitis media; perforated eardrum; polypi and other growths or diseases of the tympanum; closure of the auditory canal, partial or complete, except from acute abscess; furuncle, or impacted cerumen; malformation or loss of the external ear and all diseases thereof, except those which are slight and nonprogressive.

(i) (1) The eye: Loss of eye; total loss of sight of either eye; conjunctival affections, including trachoma; entropion; opacites of the cornea, if covering a part of moderately dilated pupil; petrygium, if extensive; strabismus; hydrophthalmia; exophthalmia; conical cornea; cataract; loss of crystalline lens; diseases of the lachrymal apparatus; ectropion; ptosis; incessant spasmodic motion of the lids; adhesion of the lids; large encysted tumors; abscess of the orbit; muscular asthenopia; nystagmus; any affection of the globe of the eye or its contents; defective vision, including anomalies of accommodation and refraction; myopia; hypermetropia, if accompanied by asthenopia; astigmatism; amblyopia; glaucoma; diplopia; color blindness. The candidate must have 20/30 vision, uncorrected, in each eye.

(2) Defective vision due to disease of the eye grounds, shall be cause for rejection at any time.

(j) The face: Extensive nevi; unsightly hairy spots; extensive cicatrices on the face.

(k) The mouth and fauces; Harelip, simple, double, or complicated; loss of the whole or a considerable part of either lip; unsightly mutilation of the lips from wounds, burns, or disease; loss of the whole or part of either maxilla; ununited fractures; ankylosis; deformities of either jaw interfering with mastication or speech; loss of certain teeth; cancerous or erectile tumors; hypertrophy or atrophy of the tongue; mutilation of the tongue; adhesions of the tongue; chronic ulceration; fissures or perforations of the hard palate; salivary of bucconasal and thyroglossal fistulae; hypertrophy of the tonsils sufficient to interfere with respiration or phonation.

(l) The neck: Goiter, scrofulous adenitis of the cervical glands; tracheal openings; thyroglossal or cervical fistulae; wry neck; chronic laryngitis, or any other disease of the larynx which would produce aphonia; stricture of the esophagus.

(m) The chest: Malformation of the chest or badly united fracture of the ribs or sternum sufficient to interfere with respiration; caries or necrosis of ribs; deficient expansive mobility; evident predisposition to tuberculosis; chronic pneumonia; emphysema; chronic pleurisy; pleural effusions; chronic bronchitis; previous operation for empyema; asthma; organic diseases of the heart or large arteries; serious protracted functional derangement of the heart; distinct predisposition to disease of heart or lungs.

(n) The abdomen: All chronic inflammations of the gastrointestinal tract, including diarrhea and dysentery; diseases of the liver or spleen, including those caused by malaria poisoning; ascites; obesity; hemorrhoids; prolapsus ani; fistula in ano; marked fissures of the anus; hernia in all situation; tumors.

(o) Genito-urinary organs: Any acute affection of the genital organs, including gonorrhea, syphilis, and venereal sores; loss of penis; phimosis, if complete; stricture of the urethra; atrophy or loss of both testicles; undescended testicle or permament retraction of one or both testicles; chronic disease of the testicle or epididymitis; hydrocele of the tunic and cord unless the hydrocele of the cord is small and inconsequential; varicocele causing symptoms; malformations of the genitalia (epispadias or hypospadias not preventing the normal passage of urine may not cause rejection); incontinence or retention of urine; urinary fistulae; enlargement of the prostate; calculus; cystitis; all organic diseases of the kidney.

(p) Affections common to both the upper and lower extremities: Chronic rheumatism; chronic diseases of joints or movable cartilage; acquired or congenital deformities such as old or irreducible dislocations or false joints; severe sprains; relaxation of the ligaments or capsules of joints; dislocations; fistulae connected with joints or any parts of bones; effusions into joints; badly united or nonunited fractures; defective or excessive curvature of the long bones; rickets; caries; necrosis; exostoses; atrophy or paralysis of a limb; extensive, deep, or adherent cicatrices, especially of burn; contraction or permanent retraction of a limb or portion thereof; loss of a limb or portion thereof.

(q) The upper extremities: Acquired or congenital deformities, such as fracture of the clavicle or fracture of the radius and ulna; webbed fingers; permanent flexing or extension of one or more fingers, as well as irremedial loss of motion of these parts; mutilation or loss of either thumb or index finger; loss of the second and third phalanges of all fingers of either hand; total loss of any two fingers of the same hand.

(r) The lower extremities: Acquired or congenital deformities, such as, varicose veins, knock-knees, club feet, flat feet (causing symptoms), webbed feet, the affected toes doubled or branching, the great toe crossing the other toes, hammer toe, bunions, large corns; overriding or superposition of any of the toes to an extreme degree; loss of a great toe; loss of any two toes of the same foot; permanent retraction of the last phalanx of any of the toes or flexion at a right angle of the first phalanx of a toe upon the second, with ankylosis of the articulation; ingrowing of the nail of the great toe; bromidrosis; chronic ulcers.

(s) *Hearing.* An applicant who cannot hear conversational speech 30 feet and whispered speech 15 feet will be rejected. The applicant will be placed at one end of the room with the ear to be tested toward the other end of the room and will insert his moistened index finger into the other ear. The examining surgeon will approach within a few feet of the applicant and pronounce words or phrases and direct the applicant to repeat what he has heard. The surgeon will then gradually recede from the applicant until he ceases to repeat correctly what is spoken to him and the distance entered on the examination record. The applicant will then face about and the other ear will be similarly tested and recorded. The above technique will be carried out in testing whispered speech, the examiner using residual air in whispering. The applicant's eyes will be covered to prevent lip reading. Any chronic disease of the external, middle, or internal ear will be sufficient cause for rejection.

(t) *Teeth.* An applicant will not be accepted unless he has a minimum of 20 teeth, 14 of which must be serviceable for masticating and incising food, and so arranged as to have 4 masticating teeth in the upper jaw opposed to 4 masticating teeth in the lower jaw, and 3 incisor teeth in the upper jaw opposed to 3 incisor teeth in the lower jaw. By "serviceable teeth" is meant sound teeth or those which have been restored by fillings or well-fitting crowns, which are not involved with pyorrhea or pus pockets around the roots, and which are not placed so irregularly as to prevent opposed teeth entering into serviceable occlusion. Masticating teeth will be considered as molars (including wisdom teeth) and bicuspids. Incisor teeth will include incisor and canine teeth. Bridge teeth or teeth on plates will not be considered as serviceable teeth. Teeth used as abutments for bridges may be considered as serviceable teeth. Artificial teeth used in plates or bridges will not be so considered, but if the prosthetic appliances are well fitting the teeth so supplied may be computed in addition to the 14 necessary serviceable teeth in order to allow the applicant sufficient teeth for entrance. Such bridge or prosthetic appliances, as well as missing or unsound teeth, will be indicated in the record of physical examination.

(u) A careful urinalysis (including microscopical examination) will be made in each case, and a quantitative examination, when practicable, if albumen or sugar is present.

(v) Blood pressure readings are required on all examinations. In considering the blood pressure, due regard will be given to the age of the applicant and to physiological causes, such as excitement, recent exercises, and digestion. The condition of the arteries, the tenseness of the pulse, and the degree of accentuation of the aortic second sound will be taken into consideration, as will also the relation between the systolic and diastolic pressure. No applicant will be rejected as a result of a single reading. When the blood pressure reading at the first examination is regarded as abnormal, or in case of doubt, the procedure will be repeated twice daily, in the morning and in the afternoon, for a sufficient number of days to enable the examiner to arrive at a definite conclusion. Hypertension evidenced by a persistent systolic blood pressure above 150 or hypotension with less than 110 is a cause for rejection. In a person under 25 years of age a persistent systolic pressure of or above 140 or a persistent diastolic pressure of 95 or over is a cause for rejection.

(w) (1) Attention will be paid to the stature and physical proportions of the candidate, and no one under 5 feet 6 inches nor over 6 feet 4 inches (stripped) will be accepted.

(2) The following tables of physical proportions are for information and guidance. Mere fulfillment of the requirements of the standard tables does not determine eligibility.

(*See table on next page*)

(3) If an applicant weighs more than the number of pounds stated in the above table, including allowance for overweight, he may be accepted if

Height		Weight	Allowance for underweight or overweight	Chest measurement	
In feet—	In inches—			At expiration	Mobility
		Pounds	*Pounds*	*Inches*	*Inches*
5	66	132	8	32½	2
5	67	134	8	33	2
5	68	141	12	33¼	2½
5	69	148	15	33½	2½
5	70	155	20	34	2½
5	71	162	20	34¼	2½
6	72	169	20	34¾	3
6	73	176	20	35¼	3
6	74	183	20	35¾	3½
6	75	190	20	36¼	3¾
6	76	197	20	36¾	3¾

the overweight is due to muscle and bone, but will be rejected if it is due to fat.

(SEAL) E. H. FOLEY, Jr.,
Acting Secretary of the Treasury.
NOVEMBER 22, 1948.

[F. R. Doc. 48-10374; Filed, Nov. 29, 1948; 8:56 a. m., 13 F. R. 7303, Nov. 30, 1948]

Chapter III—Coast Guard: Inspection and Navigation

TRANSFER OF REGULATIONS

CROSS REFERENCE: For transfer of the regulations in this chapter, see Chapter I of this title, *supra*.

Chapter IV—Coast Guard: Navigational Aids

TRANSFER OF REGULATIONS

CROSS REFERENCE: For transfer of the regulations in this chapter, see Chapter I of this title, *supra*.

TITLE 46—SHIPPING

Chapter I—Coast Guard: Inspection and Navigation

SUBCHAPTER N—EXPLOSIVES OR OTHER DANGEROUS ARTICLES OR SUBSTANCES AND COMBUSTIBLE LIQUIDS ON BOARD VESSELS

[CGFR 48-58]

PART 146—TRANSPORTATION OR STORAGE OF EXPLOSIVES OR OTHER DANGEROUS ARTICLES OR SUBSTANCES, AND COMBUSTIBLE LIQUIDS ON BOARD VESSELS

HYDROCHLORIC ACID IN BULK

A notice regarding proposed changes in the regulations for transportation of hydrochloric acid in bulk was published in the Federal Register dated August 11, 1948 (13 F. R. 4638), and a public hearing was held by the Merchant Marine Council on September 28, 1948, at Washington, D. C.

The purpose of this amendment to the regulations is to effect editorial changes and to permit certain practices to be employed by the industry in the construction or repair of tanks designed to carry hydrochloric acid in bulk, eliminate the requirements for radiographic and stress relief tests in the construction of tanks used in the transportation of hydrochloric acid in bulk, and to further change the regulations so that consistent practices in the construction of containers for the transportation of commercial acids in bulk will be allowed.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by R. S. 4405, 4472, and sec. 5 (e), 55 Stat. 244, as amended, 46 U. S. C. 170, 375, 50 U. S. C. 1275, and section 101 of Reorganization Plan No. 3 of 1946, 11 F. R. 7875, the following amendment to the regulations is prescribed and shall become effective on and after date of publication of this document in the Federal Register since it allows consistent practices to be followed in the construction of containers for the transportation of commercial acids in bulk:

DETAILED REGULATIONS GOVERNING CORROSIVE LIQUIDS

Section 146.23-13 is amended to read as follows:

§ 146.23-13 *Hydrochloric acid in bulk.* (a) Hydrochloric acid may be transported in bulk on board cargo vessels when laden in rubber or other approved lined tanks (pressure-vessel type) independent of the structure of the vessel. Tanks shall be designed for a pressure of not less than 50 pounds per square inch, and shall be constructed, inspected, and tested in compliance with the requirements for Class II arc-welded, unfired pressure vessels, as set forth in Parts 50 to 57, inclusive, of Subchapter F (Marine Engineering) of this chapter, or in compliance with the requirements of Interstate Commerce Commission specification 103B or 103BW. (See also § 146.02-18.)

(b) An application for approval to engage in the transportation of hydrochloric acid in bulk on board vessels shall be made to the Commandant of the Coast Guard. Such application shall include plans of the structure of the vessel; plans of the design of the tank (except Interstate Commerce Commission approved tanks) showing thereon complete data covering materials to be used and method of fabrication; plans of the design indicative of the manner in which the tank is to be installed and secured on board the vessel; plans showing layout of piping, valves, and fittings forming part of the tank, and also piping, valves, and fittings to be installed on the vessel for use in loading or unloading hydrochloric acid in or from the tank. Plans shall be in sufficient detail to provide complete information with reference to the vessel, the tank, and the system of piping, valves, and other appurtenances.

(c) Independent tanks shall be so fitted as to provide sufficient space between the tank and any fixed structural part of the vessel, or in lieu thereof, the installation shall be such as it will be practicable to move said tanks, for inspection of the structure of the vessel and the tanks.

(d) Prior to the installation of the rubber or other approved lining, hydrochloric acid tanks shall have their interior surfaces prepared to receive the lining. Welds shall be chipped or ground smooth. The interior surface shall be thoroughly cleaned and maintained free of foreign matter during the lining process. The rubber or other approved lining shall be of a type resistant to hydrochloric acid and shall be bonded to the plating. Piping forming the loading or discharge line, if of steel, shall be lined with rubber or other approved material to withstand the action of the lading. Flange connections shall be adequately protected from acid coming in contact therewith by means of rubber or other approved lining.

(e) (1) Piping, valves, and fittings used in the loading or unloading of hydrochloric acid shall be of material that will withstand the severe corrosive action of the acid.

(2) Piping may be one of the following materials:

(i) Steel pipe, with approved lining, not less than 2" inside diameter before lining.

(ii) Strong, acid resistant, pressure-suction type hose.

(iii) Hard rubber pipe.

(3) The flange connections, if of steel, shall be adequately protected from acid coming in contact therewith by means of rubber or other approved lining.

(f) (1) When air pressure is used for unloading acid, the air line shall include fittings installed in the following order:

(i) An "ell" having a flange on one end to connect with the air inlet flange on the tank with a full-faced soft rubber gasket. The opposite end of the "ell" may consist of a flange or ordinary pipe connection to take either a pipe or flexible hose.

(ii) When desired an acid-resistant flexible hose of optional length may be installed between the "ell" and the fixed air piping leading to the compressor.

(iii) A bleeder valve to release air pressure.

(iv) A pop valve set to blow at 30 pounds pressure.

(v) An air gauge.

(vi) A pressure-reducing valve set at 30 pounds.

(vii) An air shutoff valve.

(viii) A water separator or trap.

(2) When it is desired to install these fittings as part of the shore system, the only portion of this assembly that is required to be part of the vessel's equipment shall consist of the "ell," the bleeder valve to release air pressure, the pop valve set to blow at 30 pounds per square inch pressure, and an air shutoff valve which shall be located at the dome of each tank.

(g) (1) Upon satisfactory completion of tests and inspection the following marking, at least ⅜" high, shall be stamped into the metal of the tank, or stamped into a noncorrodible name plate permanently attached to the tank by means of welding.

(Name and address of fabricator)

---- p. s. i. ---- p. s. i.
(Design pressure) (Shop test pressure)

(Inspector's number, initials, and CG symbol)

(Fabricator's serial number)

----U. S. gallons
(Water capacity)

(Date of manufacture)

(2) In addition to the markings required by this subparagraph and by the regulations in Parts 50 to 57, inclusive, in Subchapter F (Marine Engineering) of this chapter, the legend "Hydrochloric acid only" shall be stenciled or painted in block letters (such stenciling or lettering to be at least 2" high) upon the dome or upper portion of the tank in a position plainly visible under operating conditions. Lettering must be maintained legible at all times.

(h) Tanks approved for the transportation of hydrochloric acid shall not be used for the transportation of any other commodity, except upon specific authorization of the Commandant of the Coast Guard.

(j) Spent hydrochloric acid or hydrochloric acid adulterated by other chemicals, inhibitors, oils, solvents, water, etc., shall not be accepted or transported in bulk on board vessels in containers approved for the transportation of hydrochloric acid, except upon specific authorization of the Commandant of the Coast Guard.

(k) Loading or unloading of hydrochloric acid may be accomplished by use of acid pump, siphon, or compressed air method. Gravity loading is also permissible, provided the tank on the vessel is not subjected to a pressure greater than 30 pounds per square inch.

(l) Filling and discharge pipe connections shall be kept disconnected at the tank and the outlets shall be blanked off at the tank, except when actually loading or unloading the tank: *Provided, however,* That such piping need not be disconnected when an efficient stop valve is fitted in the line in a location as close to the tank as is practicable.

(m) Filling or discharge connections shall not be detached until pressure in the tank and in the line has been completely released.

(n) If air pressure is used in either filling or discharging the lading of the tank, said air pressure shall not be in excess of 30 pounds per square inch at any time.

(o) Compressed air used for unloading shall be as free as possible from oil, moisture, or other foreign matter. To insure this the air supply shall be taken from the top of the air received (reservoir). This reservoir shall be drained at regular intervals. Compressor shall be disconnected from air lines at all times except when actually being used to fill or discharge contents of tank. The air lines shall be thoroughly blown out in a reverse direction before making connections to discharge acid. The open end of the air line at the point of connection to the shore system and tank shall be blanked off when not in use.

(p) Tools used in the operation of loading or unloading of the acid shall be kept clean and so used as to prevent damage to the lining of dome closures, piping, or fittings. A hammer or chisel shall not be used for loosening dome fittings, for connecting or disconnecting the filling, discharge, or air lines, or upon the tank at any time while it is filled with acid or is under discharge pressure.

(q) Gauging rods, if used, shall be of wood. The lower end of such rods shall be equipped with a soft rubber plug.

(r) Tools, bolts, nuts or other material dropped in a tank through dome openings shall be removed from the tank before the next loading.

(s) Organic solvents, oils, and greases, even in the most minute quantity, shall never be used where they come in contact with the coated surfaces of the tank, dome, opening covers, or discharge lines. To lubricate nuts or bolts, a mixture of flake graphite and glycerol shall be used.

(t) Tanks shall normally be kept closed to prevent sunlight from coming in contact with the lining. Connecting flanges of lined pipe shall, "when broken," be protected from the action of sunlight.

(u) The interior of the tank shall be protected from the weather. Water or other liquids shall not be introduced into tanks, except upon permission of competent authority. Persons shall not be permitted to enter tanks, except upon permission of competent authority.

(v) Before an Interstate Commerce Commission tank is first placed in service, the vessel owner shall furnish the Commandant of the Coast Guard a report certifying that the tank and its equipment comply with all the requirements of Interstate Commerce Commission specification 103B or 103-BW. (R. S. 4405, 4472, and sec. 5 (e), 55 Stat. 244, as amended, 46 U. S. C. 170, 375, 50 U. S. C. 1275, and section 101 of Reorg. Plan No. 3 of 1946, 11 F. R. 7875)

Dated: November 17, 1948.

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

[F. R. Doc. 48-10307, Filed, Nov. 24, 1948; 8:49 a. m., 13 F. R. 6955, Nov. 25, 1948]

DISTRESS SIGNALS

[CGFR 48-53]

The revised regulations for distress signals and specifications for distress signals were published in the FEDERAL REGISTER dated October 31, 1947, 12 F. R. 7072 et seq., and these regulations provided that distress signals not bearing the date of manufacture shall not be carried after January 1, 1949, and that distress signals meeting revised Coast Guard specifications be manufactured.

The purpose of these amendments to the regulations regarding distress signals is to allow an additional alternate to existing requirements and to publish the minimum standard specification for hand orange smoke distress signals.

The regulations shall become effective thirty days after the date of publication in the FEDERAL REGISTER since these regulations allow the marine industry greater latitude in equipment required. These amendments to the regulations regarding distress signals are published without prior general notice of their proposed issuance for the reason that notice, public rule making procedure, and effective date requirements in connection therewith are hereby found to be impracticable and contrary to the public interest. This emergency is due to the fact that the effective date for furnishing distress signals under the new specifications in 46 CFR 160.022 as published in the FEDERAL REGISTER October 31, 1947, should not be further postponed since no floating smoke signals have been submitted by manufacturers, whereas hand orange smoke signals which would comply with the new specification in 46 CFR 160.037 below have been tested and found operationally satisfactory as suitable alternate signals. In order to have available

to tank vessel operators an additional source from which to obtain distress signals meeting Coast Guard specifications on or before January 1, 1949, I find that it is not practicable to publish proposed regulations and hold hearings as required by R. S. 4417a, as amended, 46 U. S. C. 391a, prior to the promulgation of the regulations applicable to Tank Vessels in 46 CFR 33.3–1, and 160.037–1 to 160.037–7.

Any person who may feel aggrieved by the promulgation of these regulations may appeal therefrom to the Commandant (CMC), United States Coast Guard, Washington 25, D. C., in writing within fifteen days from date of publication of this document in the FEDERAL REGISTER. The written appeal shall be presented in triplicate and shall include data and views as to why the regulations shall not be amended. All matters presented in writing within the prescribed time shall be given due consideration and action thereon will be taken before the effective date of the regulations.

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

SUBCHAPTER D—TANK VESSELS

PART 33—LIFESAVING APPLICANCES

EQUIPMENT; LIFEBOATS, LIFE RAFTS, AND BUOYANT APPARATUS

Section 33.3–1 (e) is amended to read as follows:

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

(e) *Distress signals.* Twelve approved hand red flare distress signals in a watertight container, and 4 approved floating orange smoke distress signals; or 12 approved hand red flare distress signals in a watertight container, and 12 approved hand orange smoke distress signals in a watertight container; or 12 approved hand combination flare and smoke distress signals in a watertight container. Service use shall be limited to a period of 3 years from date of manufacture. Distress signals not bearing date of manufacture shall not be carried after January 1, 1949. (For specifications for the above signals, see subparts 160.021, 160.022, 160.023, and 160.037 in Subchapter Q of this chapter.)

(R. S. 4417a, sec. 5 (e), 55 Stat. 244, as amended, 46 U. S. C. 391a, 50 U. S. C. 1275)

SUBCHAPTER G—OCEAN AND COASTWISE GENERAL RULES AND REGULATIONS

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

Section 59.11 (e) is amended to read as follows:

§ 59.11 *Lifeboat equipment.* * * *

(e) *Distress signals.* Twelve approved hand red flare distress signals in a watertight container, and 4 approved floating orange smoke distress signals; or 12 approved hand red flare distress signals in a watertight container, and 12 approved hand orange smoke distress signals in a watertight container; or 12 approved hand combination flare and smoke distress signals in a watertight container. Service use shall be limited to a period of 3 years from date of manufacture. Distress signals not bearing date of manufacture shall not be carried after January 1, 1949. (For specifications for the above signals, see subparts 160.021, 160.022, 160.023, and 160.037 in Subchapter Q of this chapter.)

(R. S. 4426, 4488, 4491, 49 Stat. 1544, 54 Stat. 346, sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 404, 481, 489, 1333, 50 U. S. C. 1275)

Section 59.52 (a) is amended to read as follows:

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

(a) *Distress signals.* Twelve approved hand red flare distress signals in a watertight container, and 4 approved floating orange smoke distress signals; or 12 approved hand red flare distress signals in a watertight container, and 12 approved hand orange smoke distress signals in a watertight container; or 12 approved hand combination flare and smoke distress signals in a watertight container. Service use shall be limited to a period of 3 years from date of manufacture. Distress signals not bearing date of manufacture shall not be carried after January 1, 1949. (For specifications for the above signals, see subparts 160.021, 160.022, 160.023, and 160.037 in Subchapter Q of this chapter.)

(R. S. 4426, 4488, 4491, 49 Stat. 1544, 54 Stat. 346, sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 404, 481, 489, 1333, 50 U. S. C. 1275)

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

1. Section 60.9 (e) is amended to read as follows:

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

2. Section 60.45 (a) is amended to read as follows:

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

SUBCHAPTER Q—SPECIFICATIONS

PART 160—LIFESAVING EQUIPMENT

Part 160 is amended by a new subpart 160.037, reading as follows:

SUBPART 160.037—SIGNALS, DISTRESS, SMOKE, ORANGE, HAND, FOR MERCHANT VESSELS

Sec.

AUTHORITY: §§ 160.037–1 to 160.037–7, issued under R. S. 4405, 4417a, 4426, 4488, 4491, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 391a, 404, 481, 489, 1333, 50 U. S. C. 1275; sec. 101, Reorg. Plan No. 3 of 1946, 11 F. R. 7875.

SUBPART 160.037—SIGNALS, DISTRESS, SMOKE, ORANGE, HAND, FOR MERCHANT VESSELS

§ 160.037–1 *Applicable specifications and plans*—(a) *Specifications.* There are no other specifications applicable to this subpart.

(b) *Plan.* The following plan, of the issue in effect on the date hand orange smoke distress signals are manufactured, forms a part of this specification:

Drawing No. 160.021–6 (a)—Container for hand red flare distress signals.

§ 160.037–2 *Type.* (a) Hand orange smoke distress signals specified by this subpart shall be of one type which shall consist essentially of a wooden handle to which is attached a tubular casing having a sealing plug at the handle end, the casing being filled with a smoke-producing composition and fuse with button of ignition material at the top, and a removable cap having a friction striking material on its top which may be exposed for use by pulling a tear strip. The signal is ignited by scraping the friction striker on top of the cap against the igniter button on top of the body of the signal. Alternate arrangements which conform to the performance requirements of this specification will be given special consideration.

§ 160.037–3 *Materials, workmanship, construction, and performance requirements* — (a) *Materials.* The materials shall conform strictly to the specifications and drawings submitted by the manufacturer and approved by

the Commandant. The color of the tube shall be orange. The combustible materials shall be of such nature as will not deteriorate during long storage, nor when subjected to frigid or tropical climates, or both.

(b) *Workmanship.* Hand orange smoke distress signals shall be of first class workmanship and shall be free from imperfections of manufacture affecting their appearance or that may affect their serviceability. Moisture-proof coatings shall be applied uniformly and shall be free from pinholes or other visible defects which would impair their usefulness.

(c) *Construction.* The casing shall be fitted and secured to the handle with not less than a one-inch overlap and shall be attached to the handle in such a manner that failure of the joint will not occur during tests, ignition, or operation. The plug shall be securely affixed in the casing to separate the smoke composition from the wooden handle. The smoke composition shall be thoroughly mixed and be uniformly compressed throughout to preclude variations of density which may adversely affect the uniformity of its smoke emitting characteristics. The cap shall have a lap fit of not less than one inch over the end of the casing and smoke composition to entirely and securely protect the exposed surface of the igniter button and end of smoke composition and casing, and shall have an inner shoulder so constructed that it is mechanically impossible for the inner surface of the cap to come in contact with the igniter button. The cap shall be securely attached to the casing in such manner as to preclude its accidental detachment. The cap shall be provided on its top with a friction striking material which shall, by a pull of the tear strip, be entirely exposed for striking the friction igniter button. The igniter button shall be nonwater soluble or be protected from moisture by a coating of some waterproof substance, and shall be raised or exposed in such manner as to provide positive ignition by the friction striker. The igniter button shall be firmly secured in or on the top of the smoke composition; the arrangement shall be such that the ignition will be transmitted to the smoke producing composition. The assembled signal, consisting of tear strip, cap, casing, and upper portion of the handle, shall be sealed and treated to protect the signal from deterioration by moisture. The protective waterproof coating shall be applied so none adheres to the friction striking surface.

(d) *Ignition and smoke emitting characteristics.* Test specimens shall not ignite explosively in a manner that might be dangerous to the user or persons close by. Test specimens shall ignite and emit smoke satisfactorily at a uniform rate. The plug separating the smoke-producing composition from the handle shall in no case allow flame or hot gases to pass through it or between it and the casing in such manner as might burn the hand while holding the signal by the handle.

(e) *Water resistance.* Test specimens shall function properly after having been subjected to the conditioning described in § 160.037–4 (d).

(f) *Strength of joint.* Test specimens shall not show noticeable distortion, nor shall the joint between the casing and handle fail, when subjected to either of the tests described in §§ 160.037–4 (h) or (i) immediately after having been subjected to the water-resistance conditioning.

(g) *Chemical stability.* Test specimens shall function properly after having been subjected to the elevated temperature conditioning experiment described in § 160.037–4 (e). No ignition shall occur during the conditioning experiment.

(h) *Temperature of ignition of signal materials.* When tested as described by § 160.037–4 (j), the temperature of ignition of the signal materials shall be not less than 338° F. (170° C.).

(i) *Smoke emitting time.* Test specimens shall emit smoke not less than 50 seconds when the time is measured as described in § 160.037–4 (k). Test specimens shall emit smoke under water not less than ten seconds when tested as described in § 160.037–4 (f).

(j) *Color of smoke.* The color of the smoke shall be orange as determined by § 160.037–4 (m).

(k) *Susceptibility to explosion of smoke composition.* The smoke-producing composition shall not explode when subjected to the influence of a No. 6 commercial blasting cap as described in § 160.037–4 (l).

(l) *Volume and density of smoke.* Sufficient orange colored smoke shall be emitted during the 50 seconds to give a cloud of smoke that is readily visible to the naked eye of a person in an aircraft which is not less than five miles away and is flying at an elevation of 5,000 feet in clear weather. Alternate methods of determining the sufficiency of the volume of smoke produced and uniformity of discharge rate will be given special consideration.

§ 160.037–4 *Sampling, inspections, conditioning, and tests*—(a) *Classification of tests.* The methods of sampling, inspections and tests conducted upon hand orange-smoke distress signals shall be considered as falling within the following general classifications:

(1) Qualification (type or brand approval) tests;

(2) Production check tests (at the place of manufacture); and

(3) Production check tests (at a Government laboratory).

(b) *Qualification (type or brand approval) tests.* Pre-approval samples, selected in accordance with § 160.037–7 (c), shall be tested in accordance with the following testing schedule to determine qualification for type or brand approval.

(1) Test 12 specimens for water resistance characteristics, § 160.037–3 (e); following which test 6 for strength of joint, § 160.037–3 (f) (3 bend and 3 tensile, §§ 160.037–4 (h) and (i), respectively), then test these 6 specimens for ignition and burning characteristics, § 160.037–3 (d); then test 3 specimens for under water burning, §§ 160.037–3 (i) and 160.037–4 (f); and finally test 3 specimens for waterproofing of igniter button, § 160.037–4 (g).

(2) Test 6 unconditioned specimens in air for smoke emitting time, volume of smoke, and color of smoke, §§ 160.037–3 (i), (j), and (l), respectively.

(3) Test 2 specimens for chemical stability of smoke composition, § 160.037–3 (g), following which test them for ignition and smoke emitting characteristics, § 160.037–3 (d).

(4) Test 2 specimens for temperature of ignition of signal materials, § 160.037–3 (h).

(5) Test 2 specimens for suspectibility to explosion of smoke composition, § 160.037–3 (k).

(c) *Sampling, inspections, and tests of smoke signals from production lots.* The production of hand orange smoke distress signals produced under an official type or brand approval shall be checked for compliance with this specification in the manner set forth below:

(1) *Lot size and sampling procedure.* For purposes of sampling the production of hand orange smoke distress signals, a lot shall consist of not more than 3,000 signals. A new lot shall be started with any change or modification in raw materials or manufacturing methods. Lots shall be numbered serially by the manufacturer, and the lot number shall be plainly and indelibly marked on the label of each signal in the lot. A marine inspector shall select at random from each lot the number of specimen smoke signals indicated in the following table for inspection, conditioning, and testing:

Lot size:	*Minimum number of specimens of sample*
Not more than 1,000	18
1,001 to 3,000	24

(2) *Inspections (at the place of manufacture).* The marine inspector shall be admitted to the place of manufacture and shall familiarize himself with the various operations involved in the manufacturing process and, from observation during manufacture, satisfy himself that hand orange smoke distress signals are being made in general accordance with this subpart and of materials and parts conforming strictly with the specifications and drawings submitted by the manufacturer and approved by the Commandant. Specimens or samplings of materials entering into construction may be taken at random, either in the raw material state or during manufacture, by the inspector and tests made for compliance with the applicable requirements. The test specimens comprising the sample, selected in accordance with § 160.037–4 (c) (1), shall be examined by the inspector for surface defects.

(3) *Production check tests (at the place of manufacture).* The manufacturer shall provide a suitable place and the necessary apparatus for the use of the inspector in conducting such production check tests as are done at the place of manufacture. Samples from production lots, selected in accordance with § 160.037–4 (c) (1), shall, except when tested at a government laboratory as prescribed below, be tested at the place of manufacture in accordance with the following testing schedule: 1st day; place all specimens in water-resistance conditioning, § 160.037–4 (d). 2d day: Remove all specimens from water-resistance conditioning. Test two specimens for effectiveness of waterproofing of igniter button, § 160.037–4 (g). Test two specimens for bending strength of joint, § 160.037–4 (h). Test two specimens for tensile strength of joint, § 160.037–4 (i). Test all unburned specimens for smoke emitting time, § 160.037–4 (k), and for ignition and smoke emitting characteristics, § 160.037–3 (d). Measurements of volume and density of smoke will not be made, but visual observations of smoke production, sufficiency, and color of smoke will be noted. Any unusual discrepancies shall be considered cause for obtaining a new sample from the lot for tests at a government laboratory as provided below.

(4) *Production check tests (at a Government laboratory).* Tests at a government laboratory shall be made on not less than one sample from each ten production lots of hand orange smoke distress signals, or not less than once in each year, whichever occurs more frequently. Sampling and inspection shall be made at the place of manufacture as provided in subparagraphs (1) and (2) of this paragraph. The sample will be forwarded prepaid by the manufacturer to the Commandant. Tests at the government laboratory shall be conducted in accordance with the schedule given in paragraph (b) of this section, except that the number of specimens for the separate tests may be reduced in accordance with the size of the sample.

(d) *Conditioning of test specimens; water resistance.* Immerse specimen horizontally in water at not more than 30° C. with uppermost portion of the signal approximately one inch below the surface of the water for a period of 24 hours.

(e) *Conditioning-elevated temperature, humidity, and storage.* Place specimen in a thermostatically controlled even-temperature oven held at 90° C. with not less than 90% relative humidity for 72 hours. Remove specimen and store at room temperature (20° to 25° C.) with approximately 65% relative humidity for ten days.

(f) *Test method, under water smoke emission.* Ignite the signal and let it burn 15 seconds in air. Submerge burning signal in water in a vertical position with head down. Obtain under water smoke emission time by stop watch measurements from time of submersion until positive smoke emission ceases.

(g) *Test method; waterproofing substance on igniter button.* Remove the cap from the test specimen. Place head of specimen without cap about one inch under the surface of water about 20° C. for approximately 5 minutes. Remove specimen from water and wipe dry. Attempt to ignite signal according to directions.

(h) *Test method; bending strength.* Place the specimen on supports six inches apart. Attach a weight of 80 pounds to a length of wire. Hang the weight from the supported flare by looping the wire around the flare approximately equidistant from the two points of support. Let the weight hang approximately 5 minutes.

(i) *Test method; tensile strength.* Place the specimen in a chuck firmly holding it about one-half inch below the cap. Attach a weight of 80 pounds to a length of wire. Hang the weight from the supported flare by looping the wire through a hole bored perpendicular to and through the axis of the handle. Let the weight hang approximately 5 minutes.

(j) *Test method; temperature of ignition of signal materials.* The test shall be conducted in a uniformly heated gas or electric oven with a chamber of at least 6 inches by 6 inches by 9 inches inside measurement. If gas heated, the oven should be of jacketed type with the products of combustion of the heating gas excluded from the inner chamber. The oven should be provided with an opening or openings at the top of at least ¾ square inch in area to give air circulation within. A suitable 600° F. 3-inch immersion thermometer or thermocouple shall be inserted through a sleeve in the top of the oven. A shelf of perforated sheet metal shall be provided at the midheight of the oven. A wire screen cup ½ inch in diameter by ¾ inch high shall be provided. The materials to be tested shall be placed to a depth of ½ inch in the wire screen cup. (Ordinarily, materials adjacent to each other in the assembled signal will be blended together for the test, materials nonadjacent ordinarily will not be blended together for the test.) The cup then shall be placed on the shelf so as to be within ½ inch to ¼ inch from the bulb of the thermometer or the junction of the thermocouple. The temperature of the oven is to be raised to about 284° F. (140° C.) at a convenient rate, after which the temperature is to be raised at a rate not to exceed 2° F. per minute until ignition occurs or 338° F. (170° C.) has been reached. Time and temperature readings at 30-second intervals and also time at which ignition, if such occurs, are to be recorded. If ignition occurs, the approximate ignition temperature, to be reported, can be obtained by extrapolation from the time-temperature data. Alternate test methods will be given special consideration by the Coast Guard.

(k) *Test method; smoke emitting time.* The smoke emitting time of a specimen shall be obtained by stop watch measurements from the time positive smoke emission begins until it ceases. The smoke emitting time for a sample (i. e. all the test specimens from a single lot) shall be the arithmetical average for all specimens in the sample.

(l) *Test method; susceptibility to explosion.* Remove smoke composition from signal and punch a small hole in the composition. Insert a No. 6 commercial blasting cap. Ignite the cap.

(m) *Test method; color of smoke.* Ignite specimen in the open air in daytime according to manufacturer's directions, and determine the Munsell notation of the smoke color by direct visual comparison of the unshadowed portions of the smoke with the charts of the Munsell book of color held so as to receive the same daylight illumination as the unshadowed portions of the smoke. The smoke shall be deemed

orange if its Munsell notation has a hue between 8 R and 5 YR, a value greater than 4.5, and a chroma greater than 9.0.

(n) *Lot acceptance or rejection.* When the marine inspector has satisfied himself that the hand orange smoke distress signals in the lot are of a type officially approved in the name of the manufacturer, and that such signals meet the requirements set forth in this subpart, each of the smallest packing cartons or boxes (usually containing one dozen signals) in which the signals are sealed prior to shipment, shall be plainly marked with the words: "Inspected and Passed, (Date), (Port), (Inspector's Initials), U. S. C. G." When the sample of the lot does not meet the requirements of this subpart, or when one or more of the test specimens fails to ignite, the lot shall be rejected. Signals from rejected lots may, when permitted by the inspector, be reworked by the manufacturer to correct the deficiency for which they were rejected and be resubmitted for official inspection. Signals from rejected lots may not, unless subsequently accepted, be sold or offered for sale under representation as being in compliance with this specification or as being approved for use on merchant vessels.

§ 160.037–5 *Labeling and marking*—(a) *Labeling.* Each hand orange smoke distress signal shall bear a label securely affixed thereto, showing in clear, indelible black lettering on an orange background, the following wording and information:

(Company brand or style designation)

HAND ORANGE SMOKE DISTRESS SIGNAL

For daytime use—50 seconds burning time

USE ONLY WHEN AIRCRAFT OR VESSEL IS SIGHTED

DIRECTIONS—Pull tape over top of cap. Remove cap and ignite signal by rubbing scratch surface on top of cap sharply across igniter button on head of signal.

CAUTION—Stand with back to wind and point away from body when igniting or signal is burning.

(Month and year manufactured)

(Lot No. ———)

Manufactured by (Name and address of manufacturer)

U. S. Coast Guard Approval No. ——— for Merchant Vessels.

(b) *Other marking.* There shall be die-stamped, in the side of the wooden handle in figures not less than ⅛ inch high, numbers indicating the month and year of manufacture, thus: "6–48" indicating June 1948. In addition to any other marking placed on the smallest packing carton or box containing hand orange smoke distress signals, such cartons or boxes shall be plainly and permanently marked to show the date of manufacture and lot number.

§ 160.037–6 *Container*—(a) *General.* Containers for stowage of hand orange smoke distress signals are not required to have specific approval or to be of special design, but they shall meet the following test for watertightness when closed, and shall be capable of being opened and reclosed hand-tight to meet the same watertightness test. The material shall be copper, brass, bronze, or others equally corrosion-resistant to salt water and spray. The type container illustrated by Drawing No. 160.021–6 (a) is recommended for most purposes.

(b) *Watertightness test for containers.* Whenever question arises as to the watertightness of a container, the following test may be made to determine whether it is satisfactory in this respect. Open the container, remove the contents, insert colored blotting paper as a lining, reclose container as tightly as possible by hand (no wrenches or special tools permitted), submerge container with top about one foot below the surface of the water for two hours, remove container from water, wipe off excess moisture on outside, then open the container and examine the blotting paper and entire interior for evidence of moisture penetration. If any moisture or water is evidenced, the container is not satisfactory.

(c) *Marking of container.* Containers shall be embossed or bear a brass or equivalent corrosion-resistant name plate, or otherwise be suitably and permanently marked, to plainly show in letters not less than ½" high the following wording: "Hand Orange Smoke Distress Signals". No additional marking which might cause confusion as to the contents shall be permitted.

NOTE: The vessel's name is required to be painted or branded on equipment such as this container by other regulations, and nothing in this subpart shall be construed as prohibiting same.

§ 160.037–7 *Procedure for approval*—(a) *General.* Hand orange smoke distress signals for merchant vessels are approved only by the Commandant, U. S. Coast Guard, Washington, D. C. Correspondence pertaining to the subject matter of this specification shall be addressed to the Commander of the Coast Guard District in which the factory is located.

(b) *Manufacturer's plans and specifications.* In order to obtain approval, submit detailed plans and specifications, including a complete bill of material, assembly drawing, and parts drawings descriptive of the arrangement and construction of the signal, to the Commander of the Coast Guard District in which the factory is located. Each drawing shall have an identifying drawing number, date, and an identification of the signal; and the general arrangement or assembly drawing shall include a list of all drawings applicable, together with drawing numbers and alteration numbers. The alterations shall be noted with the date of alteration or new drawing numbers and dates shall be assigned. At the time of selection of the pre-approval sample, the manufacturer shall furnish to the inspector four copies of all plans and specifications, corrected as may be required, for forwarding to the Commandant.

(c) *Pre-approval sample.* After the first drawings and specifications have been examined and found to appear satisfactory, a marine inspector will be detailed to the factory to observe the production facilities and manufacturing methods and to select at random, from not less than 50 signals already manufactured, a sample of not less than 24 specimens which will be forwarded prepaid by the manufacturer to the Commandant for the necessary conditioning and tests in accordance with § 160.037–4 (b) to determine compliance with this subpart for qualification for type or brand approval for use on merchant vessels.

Dated: October 22, 1948.

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

[F. R. Doc. 48–9576; Filed, Oct. 29, 1948; 8:52 a. m.; 13 F. R. 6411, Oct. 30, 1948]

DISTRESS SIGNALS

POSTPONEMENT OF EFFECTIVE DATE

[CGFR 48–62]

The revised regulations for distress signals and specifications for distress signals were published in the Federal Register, dated October 31, 1947, 12 F. R. 7072 et seq., and these regulations provided that distress signals not bearing the date of manufacture shall not be carried after January 1, 1949, and that distress signals meeting the revised Coast Guard specifications be manufactured. In the Federal Register, dated October 30, 1948, 13 F. R. 6411 et seq., it was proposed to further amend these regulations to allow an additional alternate to existing requirements and to publish the minimum standard specification for hand orange smoke distress signals. These amendments were published without prior general notice of their proposed

issuance in order to have available to vessel operators an additional source of supply. Comments were submitted and an appeal has been made setting forth reasons why a public hearing should be held before the amendments to the regulations regarding distress signals be made effective. *It is, therefore, ordered,* That a public hearing shall be held by the Merchant Marine Council on November 30, 1948, at 9:30 a. m., in Room 4120, Coast Guard Headquarters, 1300 E Street NW., Washington, D. C., to consider all comments, data, and views, on the regulations published in the Federal Register, October 30, 1948, 13 F. R. 6411–6415, and all appeals presented to the Commandant, United States Coast Guard, as provided in Coast Guard Federal Register Document CGFR 48–53, Federal Register Document 48–9576.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by R. S. 4405 and 4417a, as amended, 46 U. S. C. 375, 391a, and section 101 of Reorganization Plan No. 3 of 1946, the amendments to the regulations regarding distress signals as published in the Federal Register, October 30, 1948, 13 F. R. 6412–6415, are postponed until all comments and appeals may be considered and action taken thereon, and a notice will be published in the Federal Register setting forth either the effective date of the amendments or the revised text of the regulations.

SUBCHAPTER D—TANK VESSELS

PART 33—LIFESAVING APPLIANCES

EQUIPMENT; LIFEBOATS, LIFE RAFTS, AND BUOYANT APPARATUS

The effective date of the amendment to § 33.3–1 (e) published in the Federal Register October 30, 1948, 13 F. R. 6412, is postponed until further notice.

SUBCHAPTER G—OCEAN AND COASTWISE, GENERAL RULES AND REGULATIONS

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

The effective date for the amendments to §§ 59.11 (e) and 59.52 (a) published in the Federal Register October 30, 1948, 13 F. R. 6412, is postponed until further notice.

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

The effective date of the amendments to §§ 60.9 (e) and 60.45 (a) published in the Federal Register October 30, 1948, 13 F. R. 6412, is postponed until further notice.

SUBCHAPTER Q—SPECIFICATIONS

PART 160—LIFESAVING EQUIPMENT

The effective date for the specification in § 160.037 is postponed until further notice.

Regulations in effect. As the amendments published in the Federal Register October 30, 1948, merely allowed an additional alternate to previous requirements for distress signals the postponement of the effective date of these amendments does not alter previous requirements which require 12 approved hand red flare distress signals in a watertight container and 4 approved floating orange smoke distress signals, or 12 approved hand combination flare and smoke distress signals in a watertight container in lifeboats and life rafts. The service use for distress signals shall be limited to a period of three years from date of manufacture. Distress signals not bearing date of manufacture shall not be carried after January 1, 1949.

Dated: November 19, 1948.

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

[F. R. Doc. 48-10220; Filed, Nov. 23, 1948; 8:50 a. m.; 13 F. R. 6921, Nov. 24, 1948]

TITLE 46—SHIPPING

Chapter I—Coast Guard: Inspection and Navigation

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

[CGFR 48-57]

CERTAIN OFFICERS OF VESSELS TO BE MEMBERS OF UNITED STATES NAVAL RESERVE

CANCELLATION OF WAIVER

Pursuant to the authority vested in me as Commandant, United States Coast Guard, by the act of March 31, 1947, as amended (Pub. Laws 27, 293, 423, 80th Cong.), and upon the advice of the Chairman, United States Maritime Commission, I hereby find it no longer necessary in the interest of the orderly reconversion of the merchant marine from wartime to peacetime operations to continue in effect beyond December 15, 1948, the general waiver of navigation and vessel inspection laws and regulations which waived compliance of section 302 (g) of the Merchant Marine Act, 1936, as amended (46 U. S. C. 1132 (g)), requiring that all of the deck and engineer officers on the United States Maritime Commission's vessels, if eligible, be members of the United States Naval Reserve:

Therefore, it is ordered, That the waiver of navigation and vessel inspection laws and regulations entitled "Requirement For Certain Officers to be Members of United States Naval Reserve", dated February 27, 1942, and published in the Federal Register February 28, 1942 (7 F. R. 1601, 46 CFR 1943 Supp. 2078), shall be canceled effective December 15, 1948: *Provided,* That no penalty prescribed by law shall be imposed for failure to comply with any provision of law or regulation because of the employment prior to December 15, 1948, of persons allowed under the waiver.

(Pub. Laws 27, 293, 423, 80th Cong.)

Dated: November 3, 1948.

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

[F. R. Doc. 48-9876; Filed, Nov. 9, 1948; 8:58 a. m., 13 F. R. 6632, Nov. 10, 1948.]

Navigation and Vessel Inspection Circular No. 8–48

UNITED STATES COAST GUARD,
Washington 25, D. C., Sept. 14, 1948.

Subj: Safety requirements for motorboats operated for pleasure and commercial fishing purposes and the requirements for the numbering and recording of undocumented vessels.

1. Navigation and Vessel Inspection Circular No. 9–47 is hereby canceled as the supply for public distribution is exhausted. The requirements covered by this circular have not been changed, except for paragraphs 1, 7, 15, and 17, which have been editorially revised and brought up to date.

2. The latest law affecting motorboats in the matter of their equipment is contained in an act of Congress dated April 25, 1940 (46 U. S. C. 526–526t), which superseded the Motorboat Act of 1910. This statute and the regulations issued thereunder are applicable to all motorboats and certain other vessels propelled by machinery other than by steam more than 65 feet in length, except (*a*) tugboats and towboats propelled by steam, (*b*) vessels propelled by steam more than 65 feet in length, (*c*) vessels having on board inflammable or combustible liquid cargo in bulk, (*d*) vessels which are subject to the International Convention for Safety of Life at Sea, 1929, carrying or certificated to carry more than 12 passengers on

an international voyage by sea, as defined in said Convention, and (e) seagoing vessels of 300 gross tons and over propelled by internal combustion engines subject to inspection and certification by the Coast Guard. The act of April 25, 1940, and the regulations issued thereunder must be complied with by all vessels subject thereto operating on the navigable waters of the United States.

3. The act of June 7, 1918, as amended, which provides for the numbering and recording of undocumented vessels, is applicable to every undocumented vessel propelled in whole or in part by machinery, owned in the United States and found on the navigable waters thereof, except public vessels and vessels not exceeding 16 feet in length measured from end to end over the deck excluding sheer, temporarily equipped with detachable motors. The words "public vessels" as used in this act include vessels owned by the United States and any state, county, city or municipality where such vessels are used in a governmental capacity. The exemption in favor of vessels not exceeding 16 feet in length temporarily equipped with detachable motors, is construed to apply to any undocumented vessel not exceeding 16 feet in length equipped with an outboard motor.

4. Prior to issuing regulations under the Motorboat Act of April 25, 1940, and the Numbering Act of June 7, 1918, as amended, the cooperation of yachtsmen, yacht and boatbuilders, and manufacturers of boating equipment was solicited. The regulations, therefore, have been formulated for the safety of the boating public by practical men who represent both the Government and the industry, and their comments and suggestions were followed wherever possible in drafting the regulations. The regulations embody the safety requirements felt necessary by the public and the Government. The operation of motorboats in compliance with these regulations will increase safety of life on the navigable waters of the United States and should not be found burdensome. The numbering regulations were drafted with a view to the expeditious handling of applications for certificates of award of number for undocumented vessels and owners of such vessels will find that in the great majority of cases and with little effort on their part, they may immediately operate their vessels without unnecessary delay.

5. Given below is a brief digest of the more important features of the Motorboat Act of April 25, 1940, and the regulations issued thereunder.

A. A motorboat as defined by the act of April 25, 1940, includes any vessel propelled by machinery and not more than 65 feet in length except tugboats and towboats propelled by steam.

B. Fines and penalties will not be incurred for failure to carry the following equipment.

(a) Pilot rules.

(b) Fire extinguishers on outboard motorboats.

(c) Fog bells on motorboats less than 26 feet.

(d) Whistles on motorboats less than 16 feet.

(e) Fog horns on all motorboats.

C. *Navigation lights.*—If lights now installed are those which complied with the old motorboat law and have the range of visibility required by the new act, they may be continued in use as long as they are in serviceable condition. Lights installed or fitted 6 months after the termination of the national emergency shall be of a type approved by the Commandant.

D. *Whistles.*—If the whistle on board complies with the audibility requirements of the rules even though not the type of whistle required, it may be continued in service until 6 months after the termination of the national emergency. After that date the specified type is required.

E. *Lifesaving equipment.*—An approved lifesaving device is required for every person on board. Box-type buoyant cushions will be permitted as life preservers on boats up to 40 feet in length. Approved life preservers or ring buoys are required for motorboats 40 feet and over. Purchasers of lifesaving equipment should look for the label or stamp indicating that the device is of a type approved by the Coast Guard.

Commercial fishing motorboats—life floats.—Wooden life floats made of light buoyant wood may be used on commercial fishing motorboats. The dimensions of every such wooden life float shall be not less than 4 feet in length, 12 inches in width, and 1¾ inches in thickness, and the weight shall not exceed 25 pounds. The float may be made in one or two pieces. If made in two pieces, the pieces shall be securely attached with wooden dowels. No metal shall be used in the construction of the float. It shall be provided with two handholes, one at each side, midway in the length, which handholes shall be not less than 6 inches in length and 2 inches in width, with a margin of at least 1 inch at the edge of the float. Wooden life floats, made of balsa wood, shall not be less than 3 feet in length, 11½ inches in width, and 2 inches in thickness. The balsa wood used in the construction of such floats shall be of the same quality as required for balsa wood life preservers. Each two-piece float, in addition to the doweling, shall be securely glued and the dowels shall be four in number, of ¾-inch diameter made of straight grained dry hardwood, driven through and entirely across the float through holes bored to slightly less diameter than the dowel.

F. *Ventilation.* — All motorboats which are constructed or decked over after April 25, 1940, and which use gasoline or other liquid fuel having a flashpoint of less than 110° F. shall be provided with ventilation as follows:

(a) At least two ventilators fitted with cowls or their equivalent for the purpose of properly and efficiently ventilating the bilges of every engine and fuel tank compartment in order to remove any inflammable or explosive gases.

(b) The ventilation of the boat is not required where the greater portion of the bilges of the engine and fuel tank compartments is open to the natural atmosphere.

G. *Fire extinguishers.*—The minimum number and type of extinguishers listed in the table are required on board. The type of extinguishers on motorboats, if in good and serviceable condition, may be used until 6 months after the national emergency. Purchasers of new fire extinguishers may inquire from the seller if the extinguisher is of a type approved by the Coast Guard. When in doubt, this information may be obtained from the Officer in Charge, Marine Inspection, U. S. Coast Guard, in the area where the motorboat is located, or from the Commandant (MVI), U. S. Coast Guard, Washington 25, D. C.

H. *Reckless operation.*—Any person who shall operate any motorboat or any vessel in a reckless or negligent manner so as to endanger the life, limb, or property of any person shall be deemed guilty of a misdemeanor and on conviction thereof by any court of competent jurisdiction shall be punished by a fine not exceeding $2,000, or by imprisonment for a term of not exceeding 1 year, or by both such fine and imprisonment, at the discretion of the court.

6. From the following table one may readily determine the equipment required on the various classes of motorboats which are operated for pleasure purposes. The failure to have such equipment on board at all times when the vessel is operated, constitutes a menace to safety of life and subjects the owner, operator, and the vessel to the penalties prescribed by law.

7. In prescribing lights for auxiliary motorboats when propelled by sail and machinery or by sail alone, the regulations in 46 C. F. R. 25.1–1 to 25.1–8, inclusive, regarding navigation lights, must be complied with by motorboats when operating after sunset and be-

fore sunrise. The following requirements are taken from these regulations and apply to all motorboats, when propelled by sail and machinery or by sail alone:

A. Motorboats of classes A and 1, when propelled by sail and machinery or by sail alone, shall carry a white light aft to show all around the horizon. The combined lantern in the fore part of the vessel will not be carried.

B. Motorboats of classes 2 and 3, when propelled by sail and machinery or by sail alone, shall carry the colored side lights properly constructed and screened but not the white lights in the fore and aft part of the vessel.

C. In addition, motorboats of all classes, when propelled by sail and machinery or by sail alone, shall carry ready at hand a lantern or flashlight showing a white light which shall be exhibited in sufficient time to avert collision.

8. Equipment is required for the safety of the persons on board. To be effective it must be in good condition. For proper protection, equipment must not only be on hand but by frequent check it should be ascertained that the equipment is in working order and fully ready for the purpose for which it was designed.

NUMBERING AND RECORDING OF UNDOCUMENTED VESSELS

9. Under the act of June 7, 1918, as amended, and the regulations issued thereunder, every undocumented vessel operated in whole or in part by machinery, owned in the United States and found on the navigable waters thereof, except public vessels and vessels not exceeding 16 feet in length, measured from end to end over the deck excluding sheer, temporarily equipped with detachable motors, shall be numbered. A clarification of the language of this statute is contained on pages 1 and 3 of this circular. The requirements contemplate that machinery-propelled undocumented vessels of less than 5 net tons used for commercial purposes, which are owned in the United States and found on such waters, be numbered under the provisions of the act as such vessels, by reason of tonnage, are exempt from documentation. The Numbering Act, however, is for the purpose of identification only and the certificate of award of number which is issued to any such vessel is solely for such purpose. It is not an authorization, license or permit for any such vessel to engage in trade.

10. Vessels of 16 gross tons and over used exclusively for pleasure purposes and otherwise entitled to documentation may be licensed as yachts by the Customs. The documentation of such vessels as yachts is not a mandatory requirement, however, and where such vessels are owned in the United States, machinery-propelled and found on United States waters, if not documented, they must be numbered under the provisions of the act. There is no restriction as to length, tonnage, or size of such vessels and the provisions of the Numbering Act should not be confused with those of the Motorboat Act of 1940 providing for the equipment of motorboats not exceeding 65 feet in length and with other machinery-propelled vessels.

EQUIPMENT REQUIREMENTS FOR PLEASURE AND COMMERCIAL FISHING MOTORBOATS

Equipment	Class A 0 to less than 16 feet	Class 1 16 to less than 26 feet	Class 2 26 to less than 40 feet	Class 3 40 to not more than 65 feet
Combination light	1 in fore part of boat showing red to port and green to starboard from right ahead to 2 points abaft the beam. Visible at least 1 mile.		None	None.
Port side light	None	None	1 on port side, properly screened to show red from right ahead to 2 points abaft the beam, visible at least 1 mile.	
Starboard side light	None	None	1 on starboard side properly screened to show green from right ahead to 2 points abaft the beam. Visible at least 1 mile.	
Stern light	1 bright white light aft showing all around the horizon. Visible at least 2 miles.			
Bow light	None	None	1 bright white light in fore part of boat showing from right ahead to 2 points abaft the beam on both sides. Visible at least 2 miles.	
Whistle [1]	None	1 hand, mouth, or power-operated, audible at least ½ mile.	1 hand or power-operated audible at least 1 mile.	1 power operated audible at least 1 mile.
Bell	None	None	1 which produces, when struck, a clear bell-like tone of full round characteristics.	
Lifesaving devices [2]	1 approved life preserver or ring buoy or buoyant cushion for each person on board.			1 approved life preserver or ring buoy for each person on board.
Flame arrestors	1 approved on each carburetor of all gasoline engines installed after Apr. 25, 1940, except outboard motors.			
Ventilation	At least 2 ventilators with cowls or equivalent capable of removing gases from the bilges in engine and fuel tank compartments of boats constructed or decked after Apr. 25, 1940, using gasoline or other fuel of a flashpoint less than 110° F.			
Fire extinguishers	1 1-quart carbon tetrachloride or 1 1½-gallon foam or 1 4-pound CO_2 extinguisher. None required on pleasure outboard motorboats.		2 1-quart carbon tetrachloride or 2 1½-gallon foam or 4-pound CO_2 extinguishers.	3 1-quart carbon tetrachloride or 3 1½-gallon foam or 3 4-pound CO_2 extinguishers.

[1] Commercial fishing motorboats may carry any of these specified devices.
[2] Commercial fishing motorboats may carry in lieu of this specified equipment prescribed wooden life floats.

The regulations issued by the Commandant under authority of the Numbering Act clarify the language of the statute requiring the following undocumented vessels to be numbered:

A. All boats equipped with permanently installed motors.

B. All boats over 16 feet in length equipped with detachable motors.

11. The following undocumented vessels are not required to be numbered:

A. Public vessels.

B. All boats not exceeding 16 feet in length temporarily equipped with detachable motors.

C. Motor lifeboats carried as lifesaving equipment on inspected vessels.

The words "temporarily equipped with detachable motors" shall be construed to mean outboard motors which are clamped or otherwise temporarily fastened as distinguished from outboard motors bolted or otherwise permanently secured. The controlling principle shall be whether or not the vessel has permanently installed motors rather than the design or construction of the vessel. A boat designed specifically for the use of an outboard motor as the ordinary means of propulsion, if not exceeding 16 feet in length, is nevertheless exempt from the requirements of the act if temporarily equipped with an outboard motor.

APPLICATIONS AND ISSUANCE OF NUMBERS

12. The following procedures describe how to obtain a number:

A. Upon the purchase of an undocumented vessel which has been issued a certificate of award of number under the provisions of the act of June 7, 1918, as amended, and after completion of the bill of sale on the reverse side of the certificate by the vendor or the former owner, the purchaser should execute the application for number for undocumented motor vessel, which is incorporated on the reverse side of the certificate of award of number (CG 1513) and surrender the certificate, bill of sale, and application for a new number to the Officer in Charge, Marine Inspection, U. S. Coast Guard, having jurisdiction over the area in which the vessel is owned, within the statutory period of 10 days. That officer, upon receipt of the certificate with the bill of sale and application properly executed and upon being satisfied with the evidence of ownership, will assign a number to the vessel and forward the certificate and accompanying papers to the District Commander for processing. He will at the same time issue to the new owner a letter authorizing the operation of the vessel for a limited period, without the certificate of award of number on board, pending the issuance of such papers by the District Commander.

B. In the case of such vessels which are new or which have never been numbered under the provisions of the Act of June 7, 1918, as amended, or which are operating under the old form of certificate of award of number, application should be made to the Officer in Charge, Marine Inspection, U. S. Coast Guard, having jurisdiction over the area in which the vessel is owned, for a certificate of award of number by presenting proper evidence of ownership such as a bill of sale, builder's certificate, etc., and by the execution of Form CG 1512, application for number for undocumented motor vessel. Upon the execution of these cards in duplicate and the presentation of evidence of ownership, the Officer in Charge, Marine Inspection, U. S. Coast Guard, will accept the application and accompanying papers, transmitting same to the District Commander for processing and will thereupon assign a number to the vessel, at the same time issuing a letter authorizing the operation of the vessel for a temporary period under the numbers assigned and pending the issuance of a certificate of award of number by the District Commander.

13. *Number required on bows of vessel.*—Upon assignment of a number by the Officer in Charge, Marine Inspection, U. S. Coast Guard, or upon receipt of the certificate of award of number, the number awarded shall be painted or attached to each bow of the vessel and shall be in block characters of good proportion and not less than 3 inches in height, reading from left to right and parallel with the waterline, as near the forward end of the bow as legibility of the entire number for surface and aerial identification permits. The number shall also be of a color in contrast with the color of the hull so as to be distinctly visible and legible.

14. *Carrying certificate of award of number.*—The certificate of award of number must be kept on board at all times (unless in the custody of the Coast Guard), except in the case of vessels not exceeding 17 feet in length, or vessels whose design or fittings are such that the carrying of such certificate on board would render it imperfect, illegible, or would otherwise tend to destroy its usefulness as a means of ready identification.

CERTAIN INSPECTION REQUIREMENTS

15. While this circular is published for the express information of owners of motorboats operated solely for pleasure or commercial fishing purposes, in view of the numerous inquiries received by the Coast Guard as to the application of the inspection laws of the United States to motor-propelled vessels, a general statement in this connection seems appropriate. Accordingly, owners and prospective owners of motorboats and motor vessels of above 15 gross tons are advised that if such vessels carry freight or passengers for hire, they are subject to annual inspection by the U. S. Coast Guard under the provisions of R. S. 4426 (46 U. S. C. 404) and may not be navigated in such service until a certificate of inspection has been issued. Motorboats of not more than 65 feet in length, which are less than 100 gross tons, when carrying passengers for hire are only required to be operated by Coast Guard licensed operators. No other licensed officers may be required. Machinery-propelled vessels of above 15 gross tons and in excess of 65 feet in length, carrying freight or passengers for hire, must also be manned with such officers and crew as is determined by the proper Officer in Charge, Marine Inspection, U. S. Coast Guard, upon inspection of the vessel. The complement of such officers and crew is stated on the certificate of inspection. Machinery-propelled vessels of 100 gross tons, or over, generally speaking, are subject to all the provisions of the Seamen's Act of March 4, 1915, as amended. Complete information on these subjects may be obtained from any Officer in Charge, Marine Inspection, U. S. Coast Guard.

16. Further information in respect to the laws and regulations applicable to motorboats and motor vessels and for advice concerning the requirements for all vessels engaged in carrying freight or passengers for hire may be obtained from any Officer in Charge, Marine Inspection, U. S. Coast Guard, or from the Commandant (MVI), U. S. Coast Guard, Washington 25, D. C.

17. Officers in Charge, Marine Inspection, U. S. Coast Guard, are located at the following ports:

Albany 1, N. Y., 313 Federal Building.

Baltimore, Md., 209 Chamber of Commerce Building.

Boston 13, Mass., 447 Commercial Street.

Buffalo 3, N. Y., 440 Federal Building.

Cairo, Ill., 425–427 New Post Office Building.

Charleston 3, S. C., 32 Customhouse.

Chicago 7, Ill., Customhouse, 610 South Canal Street.

Cincinnati 2, Ohio, 748 Federal Building.

Cleveland 15, Ohio, 1600 B. F. Keith Building, 1621 Euclid Avenue.

Corpus Christi, Tex., 919 Jones Building.

Detroit 26, Mich., 430 Federal Building.
Dubuque, Iowa, 301 Post Office and Courthouse Building.
Duluth 2, Minn., 311 Federal Building.
Galveston, Tex., 232 Customhouse.
Honolulu, T. H., P. O. Box 4010, 210 Federal Building.
Houston 11, Tex., 310 Appraisers Store Building, 7300 Wingate Street.
Jacksonville 1, Fla., 210 Federal Building.
Ketchikan, Alaska, 207 Federal Building.
Long Beach 2, Calif., 1105 Times Building.
Louisville 2, Ky., 606 Federal Building.
Ludington, Mich., National Bank of Ludington.
Memphis 3, Tenn., 322 Customhouse.
Miami 32, Fla., 501 Professional Building.
Milwaukee 2, Wis., 533 Federal Building.
Mobile 9, Ala., 565 Courthouse and Customhouse.
Nashville 3, Tenn., 1018 Stahlman Building.
New London, Conn., 302 Post Office Bldg.
New Orleans 16, La., 311 Customhouse, Canal Street.
New York 4, N. Y., 42 Broadway.
Norfolk 1, Va., 204 Customhouse.
Oswego, N. Y., 205 Federal Building.
Philadelphia 6, Pa., 801 Customhouse, Second and Chestnut Streets.
Pittsburgh 22, Pa., 1215 Park Building.
Point Pleasant, W. Va., 103 Post Office Building.
Port Arthur, Tex., 410 Bleustein Building.
Portland 3, Maine, 76 Pearl Street.
Portland 4, Oreg., 1005 Failing Building.
Providence 3, R. I., 409 Federal Building.
St. Ignace, Mich., Municipal Building, 396 North State Street.
St. Louis 1, Mo., 216 Old Customhouse, Eighth and Olive Streets.
San Francisco 26, Calif., 227 U. S. Appraisers Building, 630 Sansome Street.
San Juan, P. R., Federal Building.
Savannah 12, Ga., 205 Customhouse.
Seattle 4, Wash., 901 New World Life Building, Second and Cherry Streets.
Tampa 2, Fla., 406 Federal Building.
Toledo 2, Ohio, 402 Courthouse and Customhouse.

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

Navigation and Vessel Inspection Circular No. 9-48

UNITED STATES COAST GUARD,

Washington 25, D. C., Dec. 1, 1948.

REQUIREMENTS FOR MEMBERSHIP IN NAVAL RESERVE UNDER MERCHANT MARINE ACT OF 1936

1. Section 302 (g) of the Merchant Marine Act of 1936 provides as follows:

All of the deck and engineer officers employed on vessels on which an operating-differential subsidy is paid under authority of Title VI, or employed on the Commission's vessels after one year after the passage of this act, shall, if eligible, be members of the United States Naval Reserve.

2. The United States Maritime Commission has expressed the opinion that vessels holding operating-differential agreements are subject to the provisions of section 302 (g) of the Merchant Marine Act of 1936 and, with the concurrence of the United States Maritime Commission, the waiver of February 27, 1942 (7 F. R. 1601), under

INDEX FOR "PROCEEDINGS OF THE MERCHANT MARINE COUNCIL"

Volume 5, January Through December 1948

which all of the Commission's vessels were exempted from the provisions of this act is being cancelled effective December 15, 1948, in accordance with an order published in the Federal Register of November 10, 1948 (13 F. R. 6632).

3. Therefore, on and after December 16, 1948, under the provisions of section 302 (g) of the Merchant Marine Act of 1936, before a deck or engineer officer, other than a licensed radio officer, may sign articles for a vessel holding an operating-differential agreement, or for a vessel owned by the United States Maritime Commission and operated for its account under a General Agency Agreement, it will be necessary for him to show membership in the Naval Reserve or that he has applied for such membership and has been found ineligible therefor by the Navy Department. However, in the event that one of these officers is able to exhibit to the shipping commissioner a copy of his application for Naval Reserve membership, dated within three months, and the receipt of which has been acknowledged by the Navy Department or its authorized representative, he may be signed on pending notification of the Navy Department's action on his application. A signed statement of an Officer in Charge of Naval Officer Procurement, dated within three months, that application for membership in the Naval Reserve has been made will also be accepted by the shipping commissioner as satisfactory evidence and the applicant may be signed on pending notification of the Navy Department's action on his application.

4. The shipping commissioner will make one of the following notations opposite the signature of the officer on the articles: "Member Naval Reserve _____ (date)," "Ineligible for Naval Reserve Membership _____ (date)," or "Application for Naval Reserve Membership _____ (date)."

5. On the basis of information received from the United States Maritime Commission, current lists of vessels holding operating-differential agreements and vessels owned by the United States Maritime Commission and operated for its account under General Agency Agreements will be furnished Coast Guard personnel concerned with the enforcement of Section 302 (g) of the Merchant Marine Act of 1936.

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

The careless workman leaves his tools where they may injure someone.

Index for Proceedings, Etc.—Continued

TERMINATIONS OF APPROVAL OF EQUIPMENT

[CGFR 48–35]

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 in specific items below, I find that the lifeboat winch described below has not been tested as required by the regulations governing merchant vessels, and the approval was published through an error and that the pressure vacuum relief valve described below is no longer being manufactured and, therefore, the following approvals are terminated:

WINCH, LIFEBOAT

Termination of Approval No. 160.-015/45/0, Type CL 17.5 lifeboat winch, approved for maximum working load of 35,000 pounds' pull at the drums (17,500 pounds per fall), identified by General Arrangement Dwg. No. CL–17.5–1 dated December 6, 1946, submitted by the Marine Safety Equipment Corp., Point Pleasant, N. J.

(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, 481, 1333, 50 U. S. C. 1275; 46 CFR 37.1–5, 59.3a, 60.21, 76.15a, 94.14a)

PRESSURE VACUUM RELIEF VALVE

Termination of Approval No. 162.017/7/0, Oceco type "TC" pressure vacuum relief valve, weight loaded, atmospheric pattern, outlets fitted with flame screen, cast-iron body, aluminum valve and guide rod, cage guided valves, Dwg. No. 9788–A dated December 6, 1945, approved for sizes 3" and 4" for use with inflammable or combustible liquids of Grade A and lower grades, manufactured by The Johnston & Jennings Co., 877 Addison Road, Cleveland, Ohio. Approval No. 162.017/7/0 was published in the Federal Register of July 31, 1947.

(R. S. 4417a, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 391a, 50 U. S. C. 1275; 46 CFR 32.7–4)

Dated: July 30, 1948.

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

[F. R. Doc. 48–7112; Filed, Aug. 5, 1948; 8:54 a. m.; 13 F. R. 4551; Aug. 6, 1947.]

'Oh, me poor achin' back!'
HOW TO LIFT:
Bend your legs—
Not your back.

Merchant Marine Personnel Statistics

MERCHANT MARINE LICENSES ISSUED DURING OCTOBER 1948

DECK OFFICERS

	REGION	Atlantic coast		Gulf coast		Great Lakes and rivers		Pacific coast		Total	
		O	R	O	R	O	R	O	R	O	R
Master	Ocean	21	65	6	26		2	19	67	46	160
	Coastwise		17	20				5	3	25	20
	Great Lakes						8				8
	B. S. & L.	4	46	2	3		1	5	19	11	69
	Rivers			1	5	5	13	1		7	18
Chief mate	Ocean	19	12	13	7			9	6	41	25
	Coastwise	1	1		3					1	4
	Great Lakes						1				1
	B. S. & L.	2	4					1	4	3	8
	Rivers				3	3	11			3	14
Second mate	Ocean	35	11	4	4			18	22	57	37
	Coastwise	1								1	
Third mate	Ocean	7	20	4	7		7	9	11	20	45
	Coastwise										
Pilots	B. S. L. & R.	42	122	17	24	44	35	25	58	128	239
Uninspected vessels	Master			1						1	
	Mate										
Total		132	298	68	82	52	78	92	190	344	648
Grand total		430		150		130		282		992	

ENGINEER OFFICERS

Steam	Chief engineer:										
	Unlimited	18	97	3	40	1	23	14	66	36	226
	Limited	6	45	1	7	2	40		4	9	96
	First assistant engineer:										
	Unlimited	21	25	7	5	4	4	14	22	46	56
	Limited	1	1		2	1	10			2	13
	Second assistant engineer:										
	Unlimited	31	37	7	13	2	8	23	26	63	84
	Limited						4				4
	Third assistant engineer:										
	Unlimited	10	31	3	10	1	15	5	20	19	76
	Limited					1	1			1	1
Motor	Chief engineer:										
	Unlimited	3	14	2	4		5	3	14	8	37
	Limited	5	22	5	1		4	2	8	12	35
	First assistant engineer:										
	Unlimited	1	3	1	1			1	1	3	5
	Limited	2	1	2	1	1				5	2
	Second assistant engineer:										
	Unlimited	2	2	2	3				4	4	9
	Limited	1	1				2			1	3
	Third assistant engineer:										
	Unlimited		21		5	1	8	1	12	2	46
	Limited		2		5						7
Uninspected vessels	Chief engineer										
	Assistant engineer		1					1		1	1
Total		101	303	33	97	14	124	64	177	212	701
Grand total		404		130		138		241		913	

ORIGINAL SEAMEN'S DOCUMENTS ISSUED MONTH OF OCTOBER 1948

Region	(1) Staff officer	(2) Continuous discharge book	(3) U. S. merchant mariner's documents	(4) AB any waters unlimited	(5) AB any waters 12 months	(6) AB Great Lakes 18 months	(7) AB tugs and towboats any waters	(8) AB bays and sounds[1]	(9) AB seagoing barges	(10) Lifeboatman	(11) Q. M. E. D.	(12) Radio operators	(13) Certificate of service	(14) Tankerman
Atlantic coast	82	1	693	348	150	4	1	0	1	349	182	6	593	14
Gulf coast	5	11	142	87	32	8	1	0	0	88	44	3	128	15
Pacific coast	25	1	297	65	27	3	0	0	0	209	69	3	238	4
Great Lakes and rivers	0	0	364	7	55	25	0	0	0	58	88	1	322	17
Total	112	13	1,496	507	264	40	2	0	1	704	383	13	1,301	50

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

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

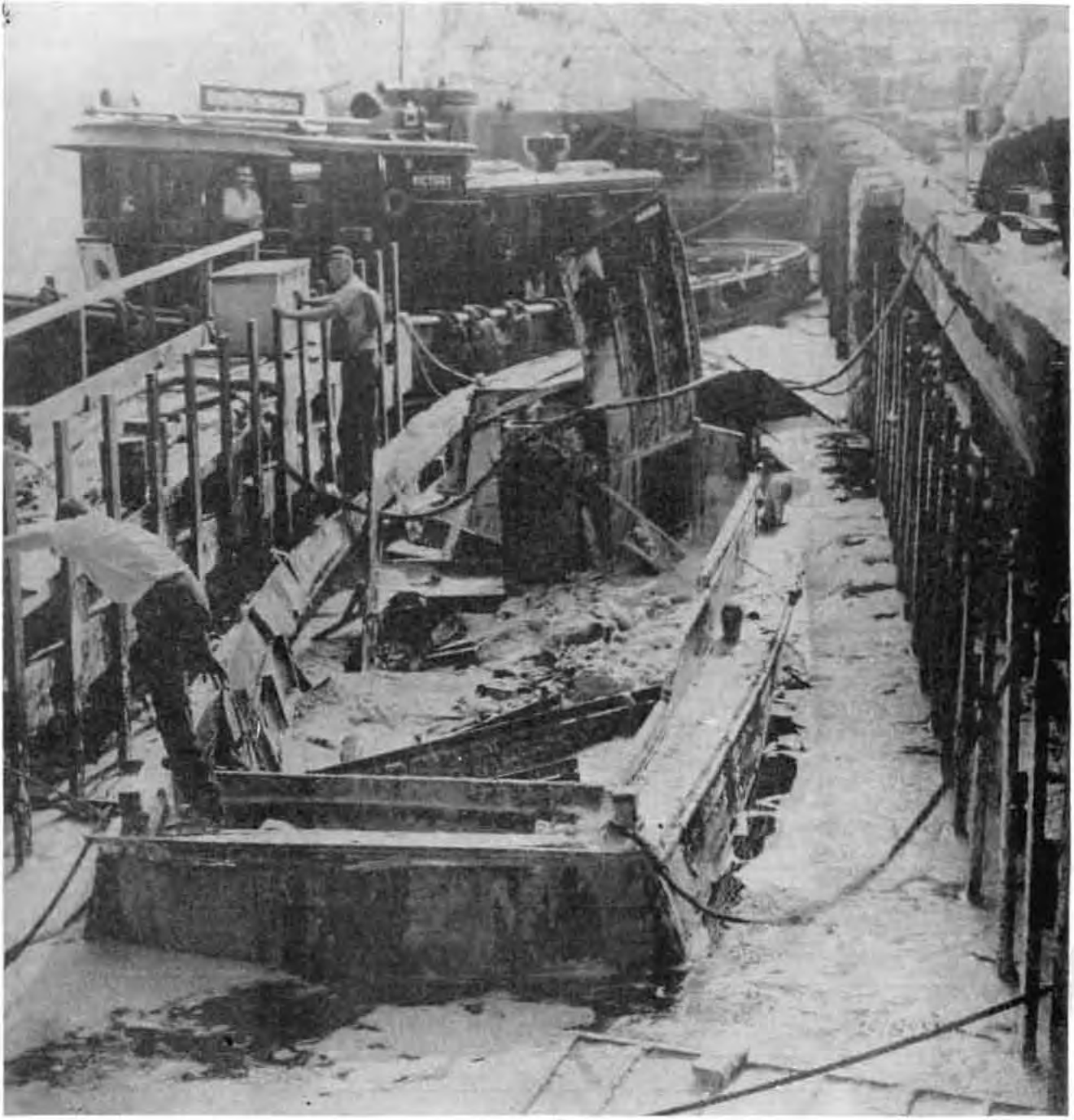
WAIVERS OF MANNING REQUIREMENTS FROM 1 OCTOBER TO 31 OCTOBER, 1948

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	17	1	1	1	19	2	5			29
Gulf coast										
Pacific coast	9		3		6		7			16
Great Lakes										
Total	26	1	4	1	25	2	12			45

NOTE: In addition, individual waivers were granted to permit the employment of 19 able seamen holding certificates for "any waters—12 months" in excess of the 50 percent authorized by general waiver.

CREW SHORTAGE REPORTS FROM 1 OCTOBER TO 31 OCTOBER, 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	9		1	1		4	2					1		9
Gulf coast	2											2		2
Pacific coast	1						1							1
Great Lakes	135	4	6	15		40	12		13	18	32	53	16	209
Total	147	4	7	16		44	15		13	18	32	56	16	221



After the Explosion and Fire—See Story on Page 214.

Distribution (SDL 36):
A: a, b, c, d (2 ea.); remainder (1 ea.).
B: c (14 ea.); g, 1 (5 ea.); e, f, h (3 ea.); d (2 ea.); remainder (1 ea.).
C: All (1 ea.).
D: All (1 ea.).
List 141M.

U. S. GOVERNMENT PRINTING OFFICE: 1948