PROCEEDINGS OF THE
MERCHANT MARINE COUNCIL

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Proceedings of the

MERCHANT MARINE COUNCIL

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The Merchant Marine Council of the United States Coast Guard

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Our Merchant Marine is an industry vital to the development of our foreign trade in peacetime. In time of national emergency it is the means of joining our great productive capacity and our troops and allies overseas.

—Congressman John F. Shelley.

"The sea still is, and, for the farthest foreseeable future, will be the avenue for the movement of the vast majority of the things and stuff and men that must be shuttled around in the prosecution of a war, and for the feeding of insatiable war industries."

Adm. Robert B. Carney, USN, in an address to the Naval War College.

"Our survival in a global war will be largely dependent upon merchant shipping which is available during the critical initial period. It is also my candid opinion that it would be folly for us to depend on the shipping and shipbuilding facilities of other nations in the event of war. We must have our own American Merchant Marine and it must be strong and adequate."

—The Secretary of the Navy, Charles S. Thomas

MARINE SAFETY ON THE DELAWARE RIVER*

By Commander R. Y. Edwards, USCG; Captain of the Port of Philadelphia

THE tremendous development which has taken place in the Delaware Valley over the past few years makes it mandatory that all concerned conduct a continuing review of existing safety practices. Each additional industry or expansion of an already existing industry results in increased traffic, and just as increased traffic on the highway has resulted in an increase in accidents, it obviously follows that we can expect an increase in maritime accidents, unless we take positive steps. In the past 30 years arrivals and departures in this port have increased from about 12,000 annually to over 18,000 annually, an increase of about 54 percent. During the same period the tonnage of cargo handled has increased 236 percent.

Thirty years ago when speaking of a dry cargo ship one immediately thought of a Hog Islander or similar type which was about 400 feet long, had a beam of about 54 feet, drew in the neighborhood of 25 feet and made a speed of about 10 knots. Today a representative dry cargo vessel would be a C–3 which is 465 feet long, beam 69 feet and makes about 16½ knots.

The development in the design of tankers and bulk cargo vessels is really amazing. The vast fleet built during the war, consisting of T–2's is rapidly going out of existence and is being replaced by super tankers ranging in size from vessels 626 feet long with a beam of 85 feet, drawing 35 feet to vessels of 803 feet in length, 116 feet beam and drawing 38 feet, all having an average speed of about 18 knots. This is significant when you consider that 75 percent of all the traffic in and out of this port is engaged in the carriage of either petroleum products or bulk cargoes.

To further add to the problem, much of the traffic presently using the Chesapeake and Delaware Canal consists of vessels enroute from New York to Baltimore or vice versa or from a foreign port to Baltimore or vice versa. These vessels never reach Philadelphia, but merely tend to swell our already serious traffic problem in the area from the Chesapeake and Delaware Canal to the sea. Although the Canal was originally built to aid and assist small craft, tug and barge traffic between the Delaware and Chesapeake Bays, in 1939 it was enlarged to accommodate ocean going commerce; consequently, its use has increased greatly and there is no reason to believe that as additional improvements and developments take place that it will not be even more frequently used. Traffic through this Canal, which is under direct and immediate control by the U. S. Army Engineers, has enjoyed a fine safety record.

CHANNEL DIMENSIONS

Now let us see what has been given to us to move these tremendous hulls up and down the Delaware. The natural dimensions of this channel are a 17-foot depth and a width which varies from 175 to 600 feet. This has been improved by the Federal Government through the U. S. Army Engineers to a point where today we have a 40-foot channel from Philadelphia to the sea whose width varies from 800 to 1,200 feet. I believe this channel depth was completed in 1942. Along this channel there are some 16 anchorages between Bombay Hook and Philadelphia. In other words, we have the same size channel, both as to width and depth, to accommodate vessels of greater speed and much larger dimensions as we had when the vessels were much slower and smaller in size, and what is even more important much fewer in number. These remarks are intended only as a recital of facts and should not be construed as another impassioned plea for the deepening and widening of the Delaware River.

We in the Coast Guard feel that we have kept pace with your increased needs and that the following statistics justify this belief. In 1924 there were 46 fixed and floating lighted aids to navigation on the Delaware River to Trenton. Today we have no less than 136 such aids and 38 ranges in the same geographical area. This does not include fixed and floating aids from Liston Point, which is the dividing line between the river and the bay, to the sea. In all we maintain 452 aids to navigation at appropriate locations from Trenton to the sea.

MARINE CASUALTIES

Let us consider the safety record insofar as collisions and groundings are concerned. During the last ten years there have been 170 collisions, only 50 of which we consider to be major. During the same period we have records showing 320 groundings, of which 60 percent resulted in no reportable damage to the vessels. During the same period about 75,000 vessels arrived and cleared, which is 150,000 transits of the bay and river. Based on these figures we arrive at the inescapable conclusion that *one out of every 300 vessels using the port of Philadelphia can expect to be involved in some type of a marine casualty*, either while being navigated or at anchor.

The 50 major casualties cost the lives of 32 men and resulted in damages exceeding nineteen million dollars. One of these resulted in a total loss of two vessels at a cost of seven million dollars and the loss of four lives, to say nothing of the additional injuries to other crew members. Compared with other ports of comparable size I suppose this expectant casualty rate is not too overwhelming, but to one who has had the opportunity to closely analyze each of these cases it is most disappointing.

The figures that I have quoted thus far do not include casualties occurring alongside the dock, such as fires. In this category, over the last 10 years, we have had four fires involving the loss of nine lives. The damages were $278,166. Here again the casualty rate appears to be quite low when one considers that over fifty million tons of petroleum products are handled each year in this area. Although all four of these fires are considered to have been preventable, the fact that greater damage did not result is attributable to the fact that the vessels involved were manned by alert, courageous and well trained crews.

COLLISIONS

Getting back to the collision casualties, analysis fails to reveal any clear cut pattern as to cause or predictable occurrence. We have had collisions in the daytime, we have had collisions at nighttime, we have had collisions in fog and collisions in clear weather. Some of the vessels have been equipped with radar and others have not. The worst casualty on record, insofar as financial loss is concerned, occurred on a clear night with both vessels navigating in full slight of each other for a considerable period of time prior to the impact.

It does appear that there is a higher rate of accidents in the vicinity of the pilot station and the Marcus Hook anchorage. However,

*Excerpts from an address delivered at the Philadelphia Regional Safety and Fire Conference and before the Petroleum Section, National Safety Council, Atlantic Division, Philadelphia, Pa., March 8, 1956.

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this is not deemed to be particularly significant because these are the two points where vessels normally engage in extensive maneuvering to pick up or drop the pilot or the quarantine officials. Analysis shows that we have had at least one collision near every bend or turn in the channel. This is normal expectancy since navigational hazards always increase whenever there is a deviation from a straight run. People have suggested to me that one of the reasons why we are plagued with accidents is the fact that it is 90 miles from the pilot station to Philadelphia and those in charge of the navigation of the vessel are subject to fatigue during the latter part of the trip. Undoubtedly, the personnel are not as fresh at the end of the trip as at the beginning, but I question very much the contention that fatigue has contributed materially to our accident rate.

Evaluation of all these collisions definitely reveals that notwithstanding the somewhat restrictive nature of the channel, along with the increase and size of the number of the vessels, it is human weakness or fault, that is primarily responsible for the accidents. This human weakness or fault may be charitably referred to as an error in judgment. By this I do not mean to imply any lack of skill or knowledge on the part of Masters or pilots as a group navigating the Delaware. I believe the pilots and others in charge of navigating this river are as skilled as any other in this world.

WHAT CAN BE DONE?

Speed

What can be done to improve the situation? Even though there are great plans for deepening and widening the channel and anchorages, as well as making new anchorages, these fine things are still in the future and our problem is with us right now. Here are some suggestions which I hope will be helpful in promoting some sort of corrective action. These suggestions are, of course, not original but I offer them to promote discussion and help to focus attention on a situation which under existing circumstances is getting no better fast. First, I would like to direct your attention to the question of speed. Naturally we build faster ships to get the cargoes to the port of discharge sooner. However, it appears foolhardy to me, to make use of this speed to attempt to make up time which was lost at sea due to bad weather or other cause in the quiet waters of the Delaware. Many of our general cargo vessels, so-called liner vessels, are operating on such tight schedules that they contemplate speeds in this area which are not at all consonant with prudent and safe operation. In many instances the Masters of the vessels are under such pressure to maintain these schedules that they make decisions based on expediency to stand on in the face of obvious unsafe conditions.

We have no speed limit in the Delaware and I am not suggesting that one be promulgated, but I do think that the 300 to 1 odds warrant that those in charge of vessel operation review their existing instructions to Masters. Let them consider the impact with which two vessels of 44,000 displacement tons proceeding at 16½ knots collide. The impact force is 1,525,000 foot tons. The impact force that could be expected in 1942 with vessels representative of that time was only 99,400 foot tons.

Radar

There is another aspect of shipboard operation which could stand some scrutiny by executive shore based personnel and this concerns the overreliance that has, in some instances, been placed upon radar. Much has been written about radar and I am aware that many of the companies here represented have required shipboard personnel to take training in its operation. Notwithstanding this there are still those who believe that the possession of radar places them in a super ship category and exempts them from compliance with the letter and meaning of the Rules of the Road. In some instances the possession of radar, as based on the testimony of those involved, has been considered sufficient justification to cause an otherwise prudent individual to continue navigating under circumstances that warranted either anchoring or a great reduction in speed. The finest radar set yet developed, insofar as the safe navigation of a vessel is concerned, is only as good as the interpretative abilities of those in charge of navigation. It is sad, indeed, that a learned Federal judge in commenting on a collision remarked that "certainly this collision would not have happened if both vessels did not have radar."

Radiotelephones

My next suggestion involves the use of radiotelephones (walkie-talkies). Several years ago, prior to the opening of the Fairless Plant, a group of the interested parties met in my office in the Customhouse and discussed the hazards of the impending navigation of the upper river by ocean-going vessels. These people were representatives of those that would make the most use of this part of the river. The possible use of walkie-talkies was explored and subsequently a number of these sets were procured. Today, practically every vessel in the upper Delaware is able to communicate with other vessels, with tugboats towing the largest tows, as well as with the bridge tenders of the Delair, Tacony-Palmyra and Burlington-Bristol bridges. The use of these walkie-talkies permits the frequent exchange of information as to speed, position, weather and also facilitates passage at prearranged points where navigational hazards are at their minimum. It also insures timely opening of the bridges.

This, to me, is a perfect example of how a procedure, adopted voluntarily and essentially only for its safety features, can result in definite savings. It has resulted not only in savings in time and money to the shipowners, but also in time and money to the motoring public using the draw bridges. Their efficiency is attested to by the fact that although we have had several minor groundings, there has as yet not been one collision worthy of mention since the plant was opened. Until January 31, 1956, there were 1,758 transits of this portion of the river involving the discharge of 6,246,571 tons *with a collision rate of zero.* If we can achieve such a marvelous safety record on that portion of the river, which is considered the most hazardous, it seems to me we can do better on that portion of the Delaware which is considered to be safer to navigate.

Tied in with the possible use of walkie-talkies is the establishment of additional reporting stations between Marcus Hook and the Capes. The limited range of walkie-talkies is offset in the upper river by the fact that the bridges serve as natural coordination and relay centers. Two additional reporting stations in the lower river would serve as relay stations and at the same time keep ships supplied with up to the minute weather data. Along the 90 miles of tortuous and congested channel from the Capes to Philadelphia, we have conditions which vary at the same time from pea soup fog to bright sunshine. Information as to conditions prevailing on all reaches of the river would aid Masters and pilots to a great extent in making the sometimes vital decision as to whether to continue or to anchor.

(Continued on page 124)

MARINE SAFETY LEGISLATION

THE year 1956 will be known as an important year in the realm of marine inspection and safety. During the year, the President signed three separate laws, all of which directly concern that important field.

PUBLIC LAW 519

The most important law would appear to be PUBLIC LAW 519 which, for the first time, will provide an adequate standard of safety for the thousands of persons who travel as passengers on small vessels each year. It will require inspection of all vessels carrying more than six passengers. The provisions of the law become applicable on January 1, 1957, or on the first day of the sixth month following the publication of rules and regulations, whichever is later.

The Coast Guard is now drafting proposed rules and regulations. These will be made the subject for a public hearing to be held most probably in Washington, D. C. Notice of the date of the public hearing and the agenda containing the proposed regulations will be published in the Federal Register at least thirty days before the date of the public hearing.

All interested parties will be afforded ample opportunity to comment in writing and also to present their views, constructive criticism, and suggestions, either orally or in writing, at the public hearing.

After consideration of the views of all interested persons and the final recommendations by the Merchant Marine Council, the proposed regulations will be rewritten. The regulations will then be published in the *Federal Register* as a part of the *Code of Federal Regulations* to be effective under the provisions of PUBLIC LAW 519 six months after the date of such publication.

The following is the text of the new law:

To require the inspection and certification of certain vessels carrying passengers.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That when used in this Act, unless the context requires otherwise—

(a) The term "passenger" means every person carried on board a passenger-carrying vessel other than—

(1) the owner or his representative;

(2) the master and the bona fide members of the crew engaged in the business of the vessel who have contributed no consideration for their carriage and who are paid for their services;

(3) any employee of the owner of the vessel engaged in the business of the owner, except when the vessel is operating under a bareboat charter;

(4) any employee of the bareboat charterer of the vessel engaged in the business of the bareboat charterer;

(5) any guest on board a vessel which is being used exclusively for pleasure purposes who has not contributed any consideration, directly or indirectly, for his carriage; or

(6) any person on board a vessel documented and used for tugboat or towboat service of fifty gross tons or more who has not contributed any consideration, directly or indirectly, for his carriage.

(b) The term "passenger-carrying vessel" means any vessel which carries more than six passengers, and which is (1) propelled in whole or in part by steam or by any form of mechanical or electrical power and is of fifteen gross tons or less; (2) propelled in whole or in part by steam or by any form of mechanical or electrical power and is of more than fifteen and less than one hundred gross tons and not more than sixty-five feet in length measured from end to end over the deck excluding sheer; (3) propelled by sail and is of seven hundred gross tons or less; or (4) non-self-propelled and is of one hundred gross tons or less; except any public vessel of the United States or of any foreign state, or any lifeboat forming part of a vessel's lifesaving equipment. The term includes (1) any domestic vessel operating on the navigable waters of the United States, or on the high seas outside of those waters and within the normal operating range of the vessel, and (2) any foreign vessel departing from a port of the United States.

(c) The term "International Convention for Safety of Life at Sea" means the "International Convention for Safety of Life at Sea, 1948" or any similar international convention which comes into force and effect after ratification by the United States Senate.

(d) The term "Secretary" means the Secretary of the department in which the Coast Guard is operating.

SEC. 2. (a) The Secretary shall, at least once every three years, cause to be inspected each passenger-carrying vessel, and shall satisfy himself that every such vessel (1) is of a structure suitable for the service in which it is to be employed; (2) is equipped with the proper appliances for lifesaving and fire protection in accordance with applicable laws, or rules and regulations prescribed by him; (3) has suitable accommodations for passengers and the crew; and (4) is in a condition to warrant the belief that it may be used, operated, and navigated with safety to life in the proposed service and that all applicable requirements of marine safety statutes and regulations thereunder are faithfully complied with.

(b) The Secretary may prescribe reasonable fees or charges for (1) any inspection made and (2) any certificate, license, or permit issued pursuant to this Act or the rules and regulations established hereunder.

SEC. 3. In order to secure effective provision against hazard to life created by passenger-carrying vessels and to carry out in the most effective manner the provisions of this Act, the Secretary shall prescribe such rules and regulations as may be necessary with respect to design, construction, alteration, or repair of such vessels, including the superstructures, hulls, accommodations for passengers and crew, fittings, equipment, appliances, propulsive machinery, auxiliary machinery, and boilers; with respect to all materials used in construction, alteration, or repair of such vessels including the fire prevention and fire retardant characteristics of such materials; with respect to equipment and appliances for lifesaving and fire protection; with respect to the operation of such vessels, including the waters in which they may be navigated and the number of passengers which they may carry; with respect to the requirements of the manning of such vessels and the duties and qualifications of the operators and crews thereof; and with respect to the inspection of any or all the foregoing.

SEC. 4. (a) No passenger-carrying vessel shall be operated or navigated until a certificate of inspection in such form as may be prescribed by the regulations promulgated by the Secretary under the authority of this Act, has been issued to the vessel indicating that the vessel is in compliance with the provisions of this Act, and the rules and regulations established hereunder; except that when a foreign passenger-carrying vessel belongs to a nation which is signatory to the International Convention for Safety of Life at Sea, a valid safety certificate issued to the vessel pursuant to the Convention may be accepted in lieu of the required certificate of inspection.

(b) Any passenger-carrying vessel to which a valid certificate of inspection has been issued pursuant to this section shall during the tenure of the certificate be in full compliance with the terms of the certificate.

(c) A certificate of inspection issued pursuant to this section may at any time be voluntarily surreudered and shall be withdrawn and suspended or revoked for noncompliance with any applicable requirements of this Act or regulations thereunder.

SEC. 5. Any owner, master, or person in charge of any vessel subject to this Act who violates the provisions of this Act, or the rules and regulations established hereunder, shall be liable to the United States in a penalty of not more than $1,000 for each such violation, for which sum the passenger-carrying vessel shall be liable and may be seized and proceeded against by way of libel in any district court of the United States having jurisdiction of the violation.

SEC. 6. (a) The Act of January 18, 1897 (29 Stat. 489; 46 U. S. C. 520), is hereby repealed.

(b) Section 4426 of the Revised Statutes, as amended (34 Stat. 193; 46 U. S. C. 404), is amended to read as follows:

"4426. The hulls and boilers of every ferryboat, canal boat, yacht or other small craft of like character propelled by steam, shall be inspected under the provisions of this title. Such other provisions of law for the better security of life as may be applicable to such vessels shall, by the regulations of the Secretary of the department in which the Coast Guard is operating, also be required to be complied with before a certificate of inspection shall be granted, and no such vessel shall be navigated without a licensed engineer and a licensed pilot: *Provided,* That in open steam launches of ten gross tons and under, one person, if duly qualified, may serve in the double capacity of pilot and engineer. All vessels of above fifteen gross tons carrying freight for hire and all vessels of above fifteen gross tons and in excess of sixty-five feet in length carrying passengers for hire, but not engaged in fishing as a regular business, propelled by gas, fluid, naphtha, or electric motors, shall be subject to all the provisions of this section relating to the inspection of hulls and boilers and requiring engineers and pilots, and for any violation of the provisions of title 52 of the Revised Statutes applicable to such vessels, or of rules or regulations lawfully established thereunder, and to the extent to which such provisions of law and regulations are so applicable, the said vessels, their masters, officers, and owners shall be subject to the provisions of sections 4496, 4497, 4498, 4499, and 4500 of the Revised Statutes, as amended (46 U. S. C. 494–498), relating to the imposition and enforcement of penalties and the enforcement of law: *Provided, however,* That until June 30, 1956, no vessel registered or licensed as a vessel of the United States of fifteen gross tons or less on December 31, 1953, shall be deemed to be subject to the inspection provisions of this section notwithstanding the fact that such vessel may thereafter be fonnd to have a tonnage in excess of fifteen gross tons, unless such finding results from an alteration in the length, breadth, or depth effected after December 31, 1953."

(c) Section 7 of the Act of April 25, 1940, as amended (54 Stat. 165; 46 U. S. C. 526f), is amended to read as follows:

SEC. 7. No such motorboat, and no other vessel of fifteen gross tons or less propelled by machinery other than steam, while carrying passengers for hire, shall be operated or navigated except in charge of a person duly licensed for such service by the Secretary of the department in which the Coast Guard is operating. Whenever any person applies to be licensed as operator of any motorboat, or of any other vessel of fifteen gross tons or less propelled by machinery, carrying passengers for hire, the Secretary shall make diligent inquiry as to his character, and shall carefully examine the applicant orally as well as the proofs which he presents in support of his claim, and if the Secretary is satisfied that his capacity, experience, habits of living, and character are such to warrant the belief that he can safely be entrusted with the duties and responsibilities of the station for which he makes application, the Secretary shall grant him a license authorizing him to discharge such duties on any such motorboat, or on any other vessel of fifteen gross tons or less propelled by machinery, carrying passengers for hire, for the term of five years. Such license shall be subject to suspension or revocation on the same grounds and in the same manner with like procedure as is provided in the case of suspension or revocation of licenses of officers under the provisions of section 4450 of the Revised Statutes, as amended (U. S. C. 1952 edition, title 46, sec. 239): *Provided,* That motorboats and other vessels of fifteen gross tons or less propelled by machinery shall not be required to carry licensed officers except as required in this Act: *And provided further,* That licenses herein prescribed shall not be required of motorboats or of any other vessels of fifteen gross tons or less propelled by machinery engaged in fishing contests previously arranged and announced."

SEC. 7. Nothing contained in this Act shall be deemed to amend, alter, or otherwise affect the requirements of any International Convention for Safety of Life at Sea.

SEC. 8. This Act shall become effective on January 1, 1957, or on the first day of the sixth month following the prescription of rules and regulations by the Secretary under section 3, hereof, whichever is later.

SEC. 9. There are hereby authorized to be appropriated such sums as may be necessary to carry ont the provisions of this Act.

SEC. 10. If any provisions of this Act, or the application of any provision of this Act to any person or circumstance is held invalid, the application of such provision to other persons or circumstances, and the remainder of this Act, shall not be affected thereby.

BIENNIAL INSPECTION

The second piece of legislation has been referred to as the "Biennial Inspection" law. It is PUBLIC LAW 549, which became effective on June 4, 1956.

This law, in effect, repealed the 1871 statute which required annual inspection of the hulls and boilers of American cargo vessels. Instead there will be an inspection once every two years.

It should be noted, however, that the inspection of passenger vessels and tankers will still be on an annual basis.

NEW LIGHTING REQUIREMENTS

The third law, one which will particularly interest small boat owners, amended the Motorboat Act of 1940. It became effective on June 4, 1956 and is PUBLIC LAW 552.

Prior to the new law, auxiliaries less than 26 feet in length were only required to carry a white light aft when under sail or propelled by sail and machinery. Since to the mariner one white light usually meant a vessel at anchor or a vessel being overtaken, he would usually navigate accordingly. As a result the danger of collision was increased.

In addition to that undesirable feature, there was the hazard occasioned by the requirement that the white light be placed aft. Obviously, any vessel rigged for sail must have her mast stepped forward if the sail is to be effective. As a result, the white light aft was always obscured through a certain arc of visibility by the sail.

Another paradox was the fact that the lights required by the Motorboat Act differed from those required by the INTERNATIONAL RULES OF THE ROAD. This meant that a motorboat or auxiliary which operated on the high seas and on inland waters had to change from one lighting system to the other when crossing the line of demarcation. If the operator neglected to make the change, and was involved in a collision, the burden of proof was on him to show that the improper lights carried were not the cause of the collision.

With the passage of the new law, the foregoing inadequacies were alleviated.

In brief the effect of the new law will be as follows: (*See page 131.*)

Power boats and auxiliaries not more than 65 feet in length, operating on inland waters, western rivers, and the Great Lakes, may exercise either of two options.

Option 1.

(a) If under 26 feet in length *carry*, as before, a combination lantern forward, and aft at a greater height an all around white light; *show*, as before, both lights when running under power alone. If running under both sail and power, *show* both lights instead of just the all around white light. If running under sail alone, *show* the combination lantern instead of the all around white light.

(b) If 26 feet or more, but not more than 65 feet in length, *carry*, as before, a 20-point white light forward, an all around white light aft, and separate red-green sidelights; *show*, as before, each of these lights when running under power alone. If running under sail and power, *show* each of these lights instead of just the sidelights. If running under sail alone, *show*, as before, the red-green sidelights, but not the white lights.

Option 2.

Irrespective of length, *carry* either a combination lantern or separate red-green sidelights, a 20-point white light forward, and a 12-point white light at the stern; *show* each of these lights when running under power alone or both sail and power.

(*Continued on page 124*)

TRADITIONS OF THE SEA

The roll of American Seafarers who have performed their duties in an outstanding and meritorious manner in accordance with the highest traditions of the sea is long but never completed.

One of the names which has a distinguished place on this roll is that of CAPTAIN HOLGER E. SORENSEN. In January 1943 his ship, the MV *Cape Decision*, was sunk by an Axis submarine while enroute to West Africa.

On November 13, 1943, the President of the United States conferred the *Merchant Marine Distinguished Service Medal* on CAPTAIN SORENSEN, in accordance with the following citation:

> For heroism and distinguished service under unusual hazards.
>
> His ship was struck simultaneously by two torpedoes on the port quarter, blowing out the underwater section of the stern and starting fires in the after ammunition magazine.
>
> Due to splendid discipline and training, all 77 of the crew and passengers abandoned ship without injury or loss of life. However, two members of the crew were caught aft and were forced to jump off the stern. They were in double danger of being caught in the suction near the stern of the ship, or killed by the imminent explosion of the ammunition magazine. Mindful of this danger, and refusing to place his boatload of survivors in further jeopardy by rowing under the stern, the Master dove overboard, swam through the debris and brought the two exhausted men safely to the lifeboat.
>
> He then navigated the lifeboats 900 miles to the nearest land. His exceptional navigational skill landed the survivors nine days later in Barbados.
>
> His heroic disregard of his own safety, and his exemplary leadership under stress, constitute qualities of service which will be an enduring inspiration to seamen of the United States Merchant Marine.

nautical queries

Q. How would you determine the minimum diameter sheave block which you should use with wire rope?

A. Coast Guard regulations state that the diameter of sheaves at the base of the groove must equal at least 12 times the diameter of the wire rope, when such sheaves are used for boat falls made of wire rope.

Usual practice on wire rope subject to heavy use on ships such as cargo falls is to use about 15 times the wire rope diameter as the minimum sheave diameter.

Manufacturers in general urge larger diameters, and the size of the sheave should consider not only the diameter of the wire but also its flexibility, the less flexible grades demanding larger sheave diameters. Another factor to consider is the angular change in direction which the block affords. Where the angle is less than 180°, smaller size sheaves may be employed.

Q. What precautions would you take in handling boats equipped with releasing gear which operates under tension (Rottmer gear)?

A. See that the required marking "Danger—Lever Releases Hooks" is legible and understood by all hands involved in the operation.

When men are performing any maintenance or repair work in the boats, where the releasing gear might be accidentally handled, provide additional lashings to the breasthooks or bow and stern shackles that are independent of the releasing hooks.

Q. What is the purpose of the stream and kedge anchors, which are smaller than the bowers, that are carried by seagoing vessels?

A. Stream anchors are designed primarily for use when moored in an anchorage, such as a stream, where the arc described by the vessel in swinging to the tide or current must be limited.

Kedge anchors are designed primarily for use by a vessel in shifting by taking the kedge out with boats, dropping it, and then heaving the vessel up to it with cable. The process of moving vessels about in this manner is known as kedging.

Light anchors are handy for emergency use, such as for heaving a grounded vessel into deep water, holding a vessel away from a dock where she is being battered by wind or sea, etc.

Q. On the usual stockless anchor employed on merchant vessels, what care is necessary and what parts should be examined for signs of wear?

A. Modern stockless anchors are of rugged design and normally require little care. However, flukes should be kept free to move in their proper arc on the shank. The crown socket or pivot bar should be kept free of mud, rocks, etc. The anchor shackle pin on the bower anchors should be examined as they are subject to severe strain, as well as abrasion in the hawse pipes and in use. Should any slackness develop, they must be hardened up (usually by shipyard repair gangs) by heating and peening, or be renewed. Spare bower, stream, and kedges which are seldom used should have their shackles kept free.

Q. What signal should be displayed by day when loading or discharging oil in bulk at a dock?

A. A red flag.

Q. What should be used to make a flanged joint in an oil hose tight?

A. A gasket.

Q. What is meant by the word "Maru"?

A. It's a term which accompanies the name of all Japanese vessels and carries the hope or assumption of perfection or completeness. Its original meaning was a circle or sphere.

Q. Why should axes be located on piers near bitts or bollards where vessels' lines are secured?

A. To cut lines in the event vessels are required to vacate a slip quickly because of fire on the pier.

Q. What information should be supplied to the bridge by the mate on the foc'sle head of a vessel when laying or picking up anchor?

A. The mate in charge on the foc'sle head when laying or picking up an anchor should keep the bridge informed of the amount of cable out, the direction in which it is tending, and the strain upon the cable. Anchoring in a tideway or with wind blowing, the bridge should be informed when the vessel has brought up or reached its maximum stress on the chain in anchoring. In heaving up the anchor, the bridge should be informed when the chain is up and down, when the anchor is aweigh, and when clear of the water.

POWER OF SUGGESTION

In the June issue of the *Proceedings* there was an article entitled "Tugboat Casualties," in which it was pointed out that many uninspected diesel tugs are inadequately equipped.

There is reason to believe, however, that many of the operators are interested in bringing their vessels up to standard. In many cases, all that is required is to point out to them how a certain installation would improve the seaworthiness of their craft.

The foregoing was well demonstrated last year by a circular letter which was sent by the Commander of the 9th Coast Guard District to various uninspected tugs in the Great Lakes area.

A serious engineroom fire on an uninspected diesel tug prompted the letter. A crank case explosion in the machinery space resulted in an oil fire. Before the engine and electrical power could be secured, the flames and smoke forced the crew topside. The tug was still underway and it was dangerous to fight the fire with water because of the possibility of electrocution from the energized electric circuits.

The Chief Engineer, at great risk to himself, went back into the engineroom and secured the fuel line. As soon as the engine stopped, the electric power was automatically secured and the fire was brought under control without the danger of electrocution.

It can readily be seen that if there had been a remote shut-off valve on the fuel line, and a cut-off for the engine, above deck, the engineroom could have been secured without endangering the Chief's life.

The local Marine Inspection Officer, when he learned of the casualty, realized that a similar casualty was possible on many tugs. He decided that it would be valuable to the Great Lakes tugboat industry and its personnel if they were informed of the casualty and possible ways of circumventing a similar mishap. Accordingly, the following letter was sent to the operators of uninspected tugboats in the area:

Date

Gentlemen:

The purpose of this letter is to advise towing-vessel operators who employ diesel powered vessels in the Great Lakes region of the desirability of installing fuel oil shut-off valves and engine stopping devices which are operable from outside the engineroom.

This recommendation stems from the results of an investigation conducted under the authority of the Statutes covering marine casualty investigations, into a serious engineroom fire which occurred aboard an uninspected towing vessel. The fighting of this fire with water was impeded by the danger of electrocuting the fire fighters with the power being developed by the main diesel electric propelling plant. This plant could not be secured from outside the machinery space, and, had it not been for the Chief Engineer entering the engine space at considerable risk to himself and securing the fuel oil valves at the tank, the fire could easily have gotten out of control.

It is fully realized that diesel propelled towing vessels are exempted by law from inspection, but it was felt this suggestion might be of some future benefit in preventing a costly fire.

Very truly yours,

G. A. LITTLEFIELD,
Captain, U. S. Coast Guard,
Marine Inspection Officer,
By direction of the District Commander.

A number of replies were immediately received indicating favorable reaction to the letter. One company indicated immediate acceptance of the suggestions.

MERCHANT MARINE STATISTICS

There were 1,081 vessels of 1,000 gross tons and over in the active oceangoing United States merchant fleet on May 1, 1956, according to figures released recently by the Maritime Administration. This was eight more than the number active on April 1, 1956.

There were 37 Government-owned and 1,044 privately owned ships in active service. These figures did not include privately owned vessels temporarily inactive, or Government-owned vessels employed in loading grain for storage or undergoing repairs. They also excluded 53 vessels in the custody of the Departments of Defense, State, and Interior.

There was a net decrease of 2 vessels in the active, and 4 vessels in the total (active and inactive) privately owned fleet, with the sale of 1 freighter and 3 tankers to a foreign flag.

The Maritime Administration's active fleet increased by 10, while its total fleet decreased by 1, with the sale of 1 freighter to Korea. This made a net decrease of 5 vessels in the total merchant fleet, active and inactive, which numbered 3,226 on May 1, 1956.

Orders for 2 new tankers and conversion work on a passenger vessel, a trailership, and 10 tankers brought the total of merchant oceangoing vessels being built or under conversion to 50.

MARINE SAFETY CONTEST

The Coast Guard takes pleasure in saluting the winners of the 1955 National Safety Council Marine Section Safety Contest—congratulations are also in order to those entries who improved over their 1954 safety record.

The companies awarded the top honors in the various classes are as follows:

CARGO AND PASSENGER VESSEL CLASS

In the ocean and coastwise division of this class, United States Lines was first with an accident frequency rate of 5.45; Matson Navigation Company was a close second with a rate of 5.58; and, Moore-McCormack Lines was third with a rate of 6.81.

In the inland waterways division of this class, the Nicholson-Universal Steamship Company won first honors with an accident frequency rate of .90; Cleveland-Cliff Iron Company was second with 2.71; and, Wilson Transit Company was a close third with 2.82.

TANKERS

In the ocean and coastwise division of this class, Sun Oil Company was first with an accident frequency rate of 1.06; Esso Shipping Company was second with 2.54; and Pure Oil Company was third with a 2.78.

In the inland waterways division of this class an enviable record for safety was set that will probably never be equaled. Three companies tied for first honors with an *accident frequency rating of zero.* These companies were: Socony-Mobil Oil Co.; Sun Oil Company; and The Texas Company—congratulations.

ACCIDENT FREQUENCY RATE

The accident frequency rate is based on the number of lost-time accidents per million man-hours. The aforementioned rates can be compared with an industry-wide rate of 7.39 for cargo and passenger, ocean and coastwise vessels; and 3.29 for tankers, ocean and coastwise.

GOVERNMENT OPERATION

The Military Sea Transportation Service was not considered to be an entry in the commercial vessel operation class, but since it operates a large fleet of ocean and coastwise vessels, it is deserving of special commendation for its low accident frequency rate of 3.17.

LESSONS FROM CASUALTIES

HOT EMISSIONS

AN interesting phenomenon observed by keepers of accident records and statistics is the occasional spate of similar-type accidents which occur in a short period of time. The rate of occurrence of a certain type of casualty which has been fairly low for a prolonged period, will suddenly jump to a high frequency, for no apparent reason other than coincidence. Reports of casualty investigations received over the years at Coast Guard Headquarters, for instance, have contained occasional cases of injuries due to steam or hot water escaping and burning shipboard personnel. Most of these, averaging only one or two instances per month, were simple in nature, with only an occasional case of severe burns, and were due largely to personal thoughtlessness or carelessness.

However, a few months ago, six cases, all involving serious burns and all attributable, at least in large part, to unforeseen or unpredictable circumstances rather than carelessness, were reported to and investigated by the Coast Guard. These accidents took place in the short period of 3 months and happened on 6 different vessels entirely unrelated to each other by trade, area, or type. Their one common denominator was the use of steam for propulsion.

"DEAD" BOILER

One of the most unusual accidents occurred during the routine annual inspection of a freighter and caused both the second assistant engineer and the Coast Guard boiler inspector to suffer second degree burns while examining the main steam stop. A mystifying element was the fact that the boiler had been "dead" for over 24 hours, and all drains opened. The second assistant had washed the fireside of the boiler through the soot blowers. To do this, the boiler was filled with hot water through the third stage heater using the auxiliary feed pump. By filling the boiler, opening the main steam stop and filling the main steam line up to the main bulkhead stop, water can be introduced into the soot blower line through a root valve located on the outlet side of the main steam stop. Upon rotating the soot blower heads, the fireside of the boiler can be washed down. The washing process was completed at 10:00 a. m., the soot blower root valve closed, and the drains at the bottom of the soot blower line opened, to drain the line.

Between 10:00 a. m. and noon, the boiler was drained, manholes in the steam drum opened, and various handholes removed from the front headers and superheater headers, leaving the boiler "wide open" for examination. During this period, the third assistant and junior third were assigned to assist the second assistant in opening boiler mountings for the regular 4-year examination. Included was the main steam stop. They reported that the drains on the main steam line were opened and presumably clear, and the main steam line completely drained. The main steam stop bolts were slacked off on the bonnet and the bonnet was raised under the supervision of the second assistant, at which time it was apparent that no pressure existed at that point.

MAIN STEAM STOP

The bonnet was raised to a point where it was resting on the studs—a 2-inch opening—and remained open during the noon hour. At noon, the second assistant began pumping fuel oil from the starboard No. 5 deep tank into the port settler in an attempt to correct a slight starboard list. At 1:00 p. m., when the inspection routine was resumed, the Chief Engineer, second assistant, and boiler inspector examined various valves and finally came to the main steam stop which still had the bonnet resting on the studs. This valve was designed with an internal guide known as a "high hat" which fits over a nonreturn type valve disc. The guide and disc are two separate pieces, the guide fits around the disc and is held in place by the bonnet.

The second assistant lifted the bonnet off. The guide and disc remained in place and when he attempted to lift the guide out, it was found to be stuck. Finally with the aid of a sharp tool he was able to lift the guide and disc out of the valve. There was no water or steam in the valve. The disc, guide, and bonnet were laid on the grating and the inspector and second assistant crouched over to examine them.

Without warning, a shot of hot water estimated at 10 to 15 gallons spurted from the open valve. It struck the inspector on the right side of the face, arm, and body, and the second assistant on the left face, arm, and body. They were immediately removed and transferred to a hospital suffering from extensive second degree burns. Examination of the valve shortly after the accident disclosed that it was again dry. Such water as had been expelled was one single quantity and there was no further drainage or spurting.

PIPING LAYOUT

To determine where the hot charge had come from, it was necessary to study the piping layout. From the discharge side of the main steam stop, a 450-pound line led upward from the soot blower root valve, over the top of the boiler and aft, where it was connected to both boiler soot blower valves. The main steam line itself led from the main stop directly outboard, thence taking a rise of approximately 8 feet, returning inboard for approximately 12 feet, then dropping vertically toward the floor plates for approximately 12 feet and then forward to the main engine through the bulkhead stops.

In addition to the root valve for the 450-pound soot blower line, a modification of the vessel's steam plant had involved the installation of a 180-pound line from a reducing valve. It was mounted on the after end of the desuperheater, to the soot blower supply line. This would supply 180-pound desuperheated steam to the soot blowers, and had apparently been installed in the belief that tubes could be blown better with saturated steam than with superheated steam. With this installation, when the supply valve was opened, 180-pound pressure would also be exerted through the original 450-pound line to the outlet side of the root valve, which valve would have to be closed in order to blow tubes with saturated steam. The 180-pound line was also connected with the desuperheater of the opposite boiler, which was steaming at the time of the casualty. If the root valve of the 450-pound soot line was open and the newer 180-pound soot blower supply valve on the desuperheater of the opposite boiler was inadvertently opened momentarily, the result would be a shot of steam or hot water through the 450-pound line which could gush from the dismantled main steam stop.

HOT WATER POCKET

It was determined that it would be possible for a pocket of hot water consisting of several gallons to lie in the upper leg of the main steam line expansion loop back of the bulkhead stop. A listing of the ship, such as

would occur during the pumping of fuel oil from a starboard to a port tank, or during cargo handling, could have released the pocket of hot water, allowing it to run down and spurt from the dismantled valve. In view of the apparent lack of steam with or following the hot water, and the dry condition of the valve and adjacent piping soon after the emission, the latter possibility was given more credence, especially since there was no evidence that anyone had opened the 180-pound soot blower valve on the fired boiler, and all witnesses claimed that the 450-pound root valve was closed.

It was the consensus of the injured men, other witnesses and the investigators, that the hot water came from the upper section of the main steam line, released by a slight heeling of the vessel. Exactly how all of the factors leading to this accident could have been foreseen and the accident prevented is most difficult to state. Under similar circumstances, nine times out of ten, this unfortunate accident would not have occurred.

HOSE BURST

Another serious injury happened aboard a Mariner-type freighter on which cleaning operations to the starboard boiler were in progress. The boiler was cut off the line and allowed to cool; the port boiler remained on the line. The method of mechanically cleaning the firesides of the boiler was to direct a high velocity stream of warm water on the tubes, using a section of ¾-inch rubber hose, tested for 250 pounds, fitted with a 6-foot length of ¼-inch pipe as a high velocity nozzle.

The dead boiler was filled to capacity with pure feed water and the ¾-inch hose connected to the 1½-inch dump valve at the low point of the common bottom blow overboard discharge line, using a reducer. A pressure was to be maintained within the starboard boiler by controlling the feed stop and check valve or by feeding through the small (½-inch) compound feeder line. Pressure thus obtained in previous practice had generally varied from 100 to 200 p. s. i. Further control was achieved by throttling the 1½-inch hose (dump) valve between the hose and the common bottom blow discharge. This method certainly did not contemplate any application of full boiler pressure at the hose, and both bottom blow valves (stop, and stop check) on the steaming boiler were supposed to be tightly closed.

When all was in readiness for the wipers to "shoot" the tubes with this powerful water-jet action, the small compound feeder line was opened to apply an estimated 100 pounds pressure to the starboard boiler. Then the hose valve on the bottom blow common discharge was partly opened. Almost immediately the rubber hose burst near the connection. One man who was descending the ladder on the starboard side of the fireroom was struck by the whipping end of the hose and knocked down. He received first degree burns on one leg and first and second degree burns on the other leg from steam and hot water which sprayed from the hose. Within 30 seconds of the hose failure, the man at the valve was able to shut it off.

600 P. S. I.

The Chief Engineer hurried to the scene as soon as he heard the shouts and splashing. He found the two bottom blow valves on the steaming port boiler partly open, and closed them. By then tracing the lines and valves, it was determined that full boiler pressure, 600 p. s. i., from the steaming port boiler existed through the bottom blow system from the port boiler up to the check valve under the starboard, including the common discharge section which contained the hose connection (dump valve). Thus full boiler pressure was exerted in the hose as soon as the hose valve was opened, although the check valve in the starboard bottom blow line prevented port boiler pressure from entering the idle starboard boiler.

This system of cleaning boilers had been used successfully several times in the past on this vessel and the men involved felt quite confident that it was safe. Probably because they had had no trouble in the past, someone forgot to check the bottom blow valves on the steaming boiler to make sure that they were tightly closed. It is also possible that someone, thinking the water-jet action would be more efficient if heated or driven by some steam at full boiler pressure and temperature, intentionally cracked open the two port bottom blow valves. The full significance of boiler pressure being exerted in the hose probably was not considered at that time. Here was a case of painful injuries which were certainly not anticipated and were caused by the routine trouble-free manner in which the job had previously been performed.

From consideration of what happened here, it is obvious that this method of obtaining a water jet for fireside cleaning is not entirely safe, and should be discontinued. If, nevertheless, it is still considered necessary to use this method, an alteration should be made by installing a hose take-off valve between the stop-check and stop valves on the bottom blow lines from each boiler. With this installation, it would be impossible to accidentally get full boiler pressure, from the opposite boiler, in the hose. In accordance with the Coast Guard's marine engineering regulations, necessary approval of such an alteration must be obtained from the Officer in Charge, Marine Inspection, before the alteration is undertaken.

CLOGGED BLOWDOWN LINE

On another vessel, a junior third assistant engineer was severely burned while attempting to clear the evaporator blowdown line while the vessel was at sea. He was making his first voyage as a licensed officer, and no doubt was pursuing his task with more enthusiasm than caution.

The evaporator had been cut out and pressure raised to blow it down. The bottom blowdown line was found to be clogged, so pressure was relieved and the evaporator drained through a ¾-inch line on the bottom. Next a 2½-inch blowdown valve was removed in order to locate the stoppage. It was apparent that the line was plugged at an elbow about 3 feet from the end of the line where the valve had been removed. The junior third was instructed to try to clear the line. Undertaking the job alone, he ran some hot water from the preheater into the evaporator, an amount insufficient to show in the gauge glass. Standing in a narrow and confined working space, he worked up through the line with a plumber's snake. Suddenly, the snake broke through the scale and rust and the hot water which had been run in gushed through the cleared line, splashing all over him. He was completely soaked and suffered first, second, and third degree burns on a large part of his body. It was necessary to divert the vessel so he could be hospitalized as soon as possible.

While pressure behind the hot water gushing from this line was only equivalent to about a 3-foot head, it was sufficient to douse the unfortunate man. If this man gave any consideration to the matter, he probably considered his endeavors with the plumber's snake quite safe, since there was little or no pressure in the line; and, in his mind, there was probably too small an amount of hot water to do

any harm if it did run freely. Here was another case where reasonable care (at least in the opinion of the inexperienced junior third) was exercised, but painful results nevertheless occurred.

ANOTHER CLOGGED LINE

On another vessel where an evaporator blowdown line was found to be clogged, two men were badly burned in the process of clearing it. On this occasion the activating instrument was a hammer, rather than a plumber's snake.

While the vessel was at sea, the third assistant received instructions from the first assistant to clear the blowdown line, which had been found to be clogged on a previous watch. The evaporator had been secured 5 hours previously and was cooled down sufficiently to work on it with safety. Assisted by a wiper, the third assistant admitted steam to the evaporator, built up a shell pressure of about 10 p. s. i., opened the blowdown valve and skin valve, and thereupon, hammered the blowdown line in an attempt to clear the line. This attempt was unsuccessful and the steam supply was closed off.

The two men then removed the blowdown valve from the line. The valve was located near the shell plating, directly below the upper level grating. Access to the valve was gained by climbing up on the port side of the lower engineroom. The two men were crouched just below the piping from which the valve had been removed. It was one hour after the steam supply had been closed.

The third assistant again attempted to clear the line by hammering on the pipe. The clogged point suddenly broke clear, resulting in a discharge of hot water and steam which enveloped both men, causing serious burns to the wiper and minor injuries to the third assistant. Again it was necessary to divert the ship in order to hospitalize the wiper at the nearest port.

In this casualty, disciplinary action was taken against the third assistant for negligence in that he failed to take necessary safety precautions to protect himself and the wiper from the possibility of injuries. Assuming the third assistant had considered the possibility of a sudden rush of steam and hot water and had decided there was no danger, it is evident that he was wrong. Furthermore, it is also clear that both men were in an exposed position from which they could not escape in time if the hot water did gush forth. In this case of twice-mistaken judgment, two men paid penalties for the errors, one in suffering and pain, one in suspension of his license.

RELIEF VALVE LETS GO

On a freighter anchored in a foreign port, the second assistant, on watch in the engineroom, was cutting in the second half of the air ejector to increase the vacuum on the ship's generator. As he leaned over the relief valve to open the supply valve to the ejector, the relief valve suddenly let go, releasing boiling water which sprayed over his left arm and the right side of this face, causing second degree burns.

Here was a case of an experienced man suffering painful injuries due to his failure to foresee a possibility which would not normally be expected but which could happen. Even though he had cut in the steam supply to the air ejector 100 times without the relief valve "popping," he should never have placed his body in line with the relief valve's avenue of discharge, for the 101st time might be just the time when the valve would open, emitting scalding steam and water.

ANOTHER BURNED ENGINEER

Another second assistant was burned while working in the fireroom of a freighter docked in a West Coast port when he was struck by a "shot" of hot water. He was working on a check valve in the feed line over the starboard boiler. Without warning several gallons of scalding water spurted out and doused him, inflicting second degree burns on his chest, arms, and legs. All steam pressure was off this line and the reason for the surge of hot water could not be ascertained at the time. It is likely that a pocket of water was released by some movement of the vessel similar to the first case described above, and this pocket ran to the check valve with sufficient force to spray out and over the man.

Again, exceptional foresightedness would have been required to anticipate this accident and it is most difficult to expect such foresightedness in the daily routine of engineers. Any good professional marine engineer devoting his skill and efforts to the job in hand will usually have his mind fully occupied by the technicalities of what he is doing. But, if this man is to avoid injuries to himself and others, he will have to develop the ability to foresee eventualities, to have these possibilities constantly in the back of his mind, and to shape his planning and actions always to avoid the consequences. The development of such a "sixth sense" is an absolute requisite of safe work and safe workmen.

HOT WORK

By Lieutenant G. J. Perron, USCG

It would appear to be an understatement to say, "You cannot be overcautious when 'hot work' is to be done on a ship."

In this particular case, the attempt to prevent an accident could in itself have caused one—and did result in some damage to the ship.

A C-3 type freighter was in drydock for annual inspection and repairs. There was to be some burning on the hull and all precautions were to be taken. Accordingly, the shipyard supervisor ordered the No. 1 double-bottom tank made gas-free by saturating it with carbon dioxide.

Shipyard workers dutifully entered No. 1 hold and commenced the preparation. What was assumed to be the double-bottom manhole cover was drilled through, in place, and a hose connection made for the CO_2.

When all was ready the yard chemist was called to observe the operation and determine when the tank was gas-free. He checked the connections, placed a watch at No. 1 double-bottom tank vents, and then introduced the CO_2 into the tank—without results. Another charge was released—still no results!

Suddenly, a loud noise could be heard which sounded like a large object had been dropped. A moment later the supervisor appeared on deck, leaned over the hatch coaming, and shouted down, "What's going on? The fathometer just fell out of the bottom!" The depth finder and a section of the shell plating were resting on the deck of the drydock.

Immediate investigation disclosed that the wrong manhole cover had been drilled. It was not the double-bottom manhole. This would never have happened if the cover had been removed before drilling—the proper safety practice. The drilling alone, with the manhole cover in place, could have caused an explosion, if there had been an explosive percentage of gas fumes in the tank. After all, the purpose of the connection was to gas-free the tank.

The results could have been even more disastrous had the vessel been in the water. She could have flooded through the depth finder compartment; or, the venting of the explosion could have been inward inside the hold, thereby injuring the workers in the vicinity.

Let us be careful, the next life you take may be your own.

MARINE SAFETY

(*Continued from page 116*)

Safety program

A final suggestion that occurs to me would involve a local adoption of an experiment recently tried out in the Gulf area. This experiment consisted of the establishment of an industry-wide safety program which has in mind the reviewing of operating instructions, knowledge of the Rules of the Road and other problems involving safe navigation. There is an excellent report on this matter in the February 1956 issue of the *Marine News* in an article written by Mr. W. McFadden Duffy entitled "Safety Programs Paying Off."

The problem in the Gulf is not so much a big ship problem as one which involves tows and barges and small propelled craft. I suppose it could well be argued that their problem was one of their own making in that many of the companies did not require the possession of a license on the part of their officer personnel, and hence, in many instances, those in charge of the navigation had never been required to give any evidence whatsoever of their knowledge of safe navigating practice. At the same time, there is a similarity in our problems; New Orleans has a long stretch of river from the port to the sea and is beset with similar weather problems. If an industry group were to adopt those aspects of the Gulf training program, which lend themselves to use in the Philadelphia area, perhaps some benefits could be derived.

I want to thank all of you for your splendid cooperation in making our enforcement job as efficient as it is and I want to assure you that we will continue to strive to assist you in every way in achieving safer and safer operation.

MARINE SAFETY LEGISLATION

(*Continued from page 118*)

If running under sail alone, turn off the 20-point white light and *show* the sidelights (or combined lantern) and the 12-point white stern light. Pertinent details for vessels exercising this option are to be found in Rules 2 (a), 7 (a), 7 (b), and 10 (a) of the INTERNATIONAL RULES.

It should be noted that those vessels exercising *Option 1* will still be required to change lights and conform to the INTERNATIONAL RULES when to seaward of inland waters. Those exercising *Option 2* need not change the lights since they will duplicate the lights required on the high seas by the INTERNATIONAL RULES.

BEST SELLER OF THE SEA

In recent years, the U. S. Navy Hydrographic Office has revised many of its publications. A forthcoming revision promises to be the most noteworthy of all. This will be the revised edition of *Bowditch—American Practical Navigator*.

Bowditch, the "seaman's bible" has been the "best seller of the sea" since it was first published in 1802. That was the year Nathaniel Bowditch (1773–1838), a young mathematical wizard from Massachusetts, completed his fifth sea voyage on a Salem merchantman. During those five voyages, Bowditch filled notebooks with navigational data and by the end of the last voyage had completed a simplified handbook of practical navigation in which he corrected some 8,000 errors he had found in current navigational texts.

In 1868 the U. S. Navy Hydrographic Office obtained the publishing rights and since then has issued it as H. O. 9. There have been seventy editions since 1802 with many revisions, but the forthcoming revision will be the most extensive of all.

The science of navigation has grown in breadth and depth during recent decades—particularly in the number and complexity of electronic devices confronting the modern navigator. Accordingly, the text has been completely rewritten, new illustrations have been provided, and many of the tables have been recomputed or at least rearranged.

Despite these changes, it is a tribute to the understanding and foresight of Nathaniel Bowditch that his original conception of this book has so well stood the test of practical use that the title page from the first edition could almost be used to describe the 70th edition.

The new edition will contain eight parts, 44 chapters, 30 appendices, 37 tables, approximately 500 diagrams, figures, or illustrations, some in color, and over 1,300 pages. The page size will be the same as in the present edition. It will be bound in blue fabricoid similar to the H. O. 214 volumes.

TEXT

Part I—"Fundamentals," contains the first five chapters—the first being a "History of Navigation."

Part II—"Piloting and Dead Reckoning," comprises four chapters.

Part III—"Electronic Navigation," covers a field new for *Bowditch*. One chapter each is devoted to "Radio Waves," "Electronics and Navigation," "Direction and Distance by Electronics," and "Hyperbolic Systems." Loran, shoran, console, and Decca are described; and radar, particularly the interpretation of scope information, is given extensive treatment.

Part IV—"Celestial Navigation," is covered in nine chapters. Chapter 21 of this Part contains a comparison of more than fifty tabular methods for the solution of the navigation triangle, in addition to a description of many graphical and mechanical methods.

Part V—"The Practice of Navigation," contains seven chapters: "The Practice of Marine Navigation," "Submarine Navigation," "Polar Navigation," "Lifeboat Navigation," "Land Navigation," "Air Navigation," and "Navigational Errors." The chapter on navigational errors is new for *Bowditch*. It discusses the major weak spot in navigation—the interpretation of a group of lines of position. The various sources of errors are considered and methods for establishing the most probable position of a ship are well illustrated.

Part VI—"Oceanography," is covered in seven chapters and contains much new information.

Part VII—"Weather," is covered in three chapters.

Part VIII—"Hydrographic Surveying" is covered in five chapters.

APPENDICES

There are 30 appendices, 10 of which are extracts from various publications referred to in the text. The remaining 20 provide reference material for the reader.

TABLES

Each table in the new edition has been carefully scrutinized for utility, accuracy and arrangement. The traverse table and the haversine table have been rearranged to supply the same numerical values in a condensed form. Secant and cosecant values have been added to the table of natural functions. The limits of the radio bearing conversion table have been extended to 85° of latitude, and to 120° of difference of longitude. All tables involving the nautical mile were recomputed for the length of the international nautical mile, 1,852 meters, adopted in 1954.

The foregoing indicates only a few of the noteworthy aspects of the new *Bowditch*. A notice will be carried in the *Proceedings* when the revised edition is available. It is expected to be available the latter part of 1956.

APPENDIX

AMENDMENTS TO REGULATIONS

TITLE 33—NAVIGATION AND NAVIGABLE WATERS

Chapter I—Coast Guard, Department of the Treasury

Subchapter K—Security of Vessels

[CGFR 56-12]

PART 121—SPECIAL VALIDATION ENDORSEMENT FOR EMERGENCY SERVICE FOR MERCHANT MARINE PERSONNEL

Correction

In F. R. Doc. 56-3329, appearing at page 2814 of the issue for Tuesday, May 1, 1956, the filing date at the end of the document should read "Apr. 30, 1956".

Subchapter L—Security of Waterfront Facilities

[CGFR 56-15]

PART 125—IDENTIFICATION CREDENTIALS FOR PERSONS REQUIRING ACCESS TO WATERFRONT FACILITIES OR VESSELS

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Executive Order 10173, as amended, Part 125 is amended to read as follows:

Sec.

AUTHORITY: §§ 125.01 to 125.57 issued under 40 Stat. 220, as amended; 50 U. S. C. 191; E. O. 10173, 15 F. R. 7005, 3 CFR, 1950 Supp., as amended by E. O. 10277, 16 F. R. 7537, 3 CFR, 1951 Supp., E. O. 10352, 17 F. R. 4607, 3 CFR, 1952 Supp. Interpret or apply: R. S. 4517, as amended, 4518, as amended, sec. 19, 23 Stat. 58, as amended, sec. 2, 23 Stat. 118, as amended, sec. 7, 49 Stat. 1936, as amended; 46 U. S. C. 570, 571, 572, 2, 689.

§ 125.01 *Commandant.* The term "Commandant" means Commandant of the Coast Guard.

§ 125.03 *District Commander.* The term "District Commander" means the officer of the Coast Guard designated by the Commandant to command a Coast Guard District.

§ 125.05 *Captain of the Port.* The term "Captain of the Port" means the officer of the Coast Guard, under the command of a District Commander, so designated by the Commandant for the purpose of giving immediate direction to Coast Guard law enforcement activities within the general proximity of the port in which he is situated.

§ 125.07 *Waterfront facility.* The term "waterfront facility," as used in this subchapter, means all piers, wharves, docks, and similar structures to which vessels may be secured, buildings on such structures or contiguous to them, and equipment and materials on such structures or in such buildings.

§ 125.09 *Identification credentials.* The term "Identification credentials," as used in this subchapter, means any of the following:

(a) Coast Guard Port Security Card (Form CG 2514).

(b) Merchant Mariner's Document bearing special validation endorsement for emergency service.

(c) Armed Forces Identification Card.

(d) Identification credentials issued by Federal law enforcement and intelligence agencies to their officers and employees (e. g., Department of the Treasury, Department of Justice, Federal Communications Commission).

(e) Identification credentials issued to public safety officials (e. g., police, firemen) when acting within the scope of their employment.

(f) Such other identification as may be approved by the Commandant from time to time.

§ 125.11 *Form of Coast Guard Port Security Card.* The Coast Guard Port Security Card issued by the Coast Guard under the provisions of this subchapter shall be a laminated card bearing photograph, signature, fingerprint, and personal description of the holder, and other pertinent data.

§ 125.13 *Captain of the Port Identification Cards.* Captain of the Port Identification Cards issued under the form designation "Form CG 2514" prior to the revision of August 1950 were declared invalid by a notice published in the FEDERAL REGISTER on September 11, 1946 (11 F. R. 10103), which declaration is hereby reaffirmed.

§ 125.15 *Access to waterfront facilities, and port and harbor areas, including vessels and harbor craft therein.* (a) The Commandant will, from time to time, direct Captains of the Port of certain ports to prevent access of persons who do not possess one or more of the identification credentials listed in § 125.09 to those waterfront facilities, and port and harbor areas, including vessels and harbor craft therein, where the following shipping activities are conducted:

(1) Those vital to the Military Defense Assistance Program.

(2) Those pertaining to the support of U. S. military operations.

(3) Those pertaining to loading and unloading explosives and other dangerous cargo.

(b) No person who does not possess one of the identification credentials aforesaid shall enter or remain in such facilities, or port or harbor areas, including vessels and harbor craft therein.

(c) The Captain of the port shall give local public notice of the restriction of access to waterfront facilities, and port and harbor areas, including vessels and harbor craft therein, as far in advance as practicable, and shall cause such facilities and areas

to be suitably marked as to such restriction.

§ 125.17 *Persons eligible for Coast Guard Port Security Cards.* Only the following persons may be issued Coast Guard Port Security Cards:

(a) Persons regularly employed on vessels or on waterfront facilities.

(b) Persons having regular public or private business connected with the operation, maintenance, or administration of vessels, their cargoes, or waterfront facilities.

§ 125.19 *Standards.* Information concerning an applicant for a Coast Guard Port Security Card, or a holder of such card, which may preclude a determination that his character and habits of life are such as to warrant the belief that his presence on waterfront facilities, and port and harbor areas, including vessels and harbor craft therein, would not be inimical to the security of the United States, shall relate to the following:

(a) Advocacy of the overthrow or alteration of the Government of the United States by unconstitutional means.

(b) Commission of, or attempts or preparations to commit, an act of espionage, sabotage, sedition or treason, or conspiring with, or aiding or abetting another to commit such an act.

(c) Performing, or attempting to perform, duties or otherwise acting so as to serve the interests of another government to the detriment of the United States.

(d) Deliberate unauthorized disclosure of classified defense information.

(e) Membership in, or affiliation or sympathetic association with, any foreign or domestic organization, association, movement, group, or combination of persons designated by the Attorney General pursuant to Executive Order 10450, as amended.

(f) Having been adjudged insane, having been legally committed to an insane asylum, or treated for serious mental or neurological disorder, without evidence of cure.

(g) Having been convicted of any of the following offenses, indicative of a criminal tendency potentially dangerous to the security of such waterfront facilities and port and harbor areas, including vessels and harbor craft therein: arson, unlawful trafficking in drugs, espionage, sabotage, or treason.

(h) Drunkenness on the job or addiction to the use of narcotic drugs, without adequate evidence of rehabilitation.

(i) Illegal presence in the United States, its territories or possessions; having been found finally subject to deportation order by the United States Immigration and Naturalization Service.

§ 125.21 *Applications.* (a) Applications for a Coast Guard Port Security Card shall be made under oath upon a form prescribed by the Commandant.

(b) In addition to the information required by the form prescribed by the Commandant, the form shall require applicant's complete identification, citizenship record, personal description, military record, if any, and a statement of the applicant's sponsor certifying the applicant's employment or union membership and that applicant's statements are true and correct to the best of sponsor's knowledge.

(c) The application shall be accompanied by two unmounted, dull finish photographs, 1 inch x $1\frac{5}{16}$ inches, of passport type, taken within one year of the date of application. The photograph shall show the full face with the head uncovered and shall be a clear and satisfactory likeness of the applicant. It shall portray the largest image of the head and upper shoulders possible within the dimensions specified.

(d) Fingerprint records on each applicant shall be taken by the Coast Guard at the time application is submitted.

(e) The applicant shall present satisfactory proof of his citizenship.

(f) The applicant shall indicate the address to which his Coast Guard Port Security Card can be delivered to him by mail. Under special circumstances the applicant may arrange to call in person for the Coast Guard Port Security Card.

(g) The applicant shall present his application, in person, to a Coast Guard Port Security Unit designated to receive such applications. Such units will be located in or near each port where Coast Guard Port Security Cards are required. Each Captain of the Port shall forward promptly to the Commandant each application for a Coast Guard Port Security Card received by him.

§ 125.23 *United States citizens.* Acceptable evidence of United States citizenship is described in this section in the order of its desirability; however, the Coast Guard will reject any evidence not believed to be authentic;

(a) Birth certificate or certified copy thereof.

(b) Certificate of naturalization. This shall be presented by all persons claiming citizenship through naturalization.

(c) Baptismal certificate or parish record recorded within one year after birth.

(d) Statement of a practicing physician certifying that he attended the birth and that he has a record in his possession showing the date and place of birth.

(e) United States passport.

(f) A commission in one of the armed forces of the United States, either regular or reserve; or satisfactory documentary evidence of having been commissioned in one of the armed forces subsequent to January 1, 1936, provided such commission or evidence shows the holder to be a citizen.

(g) A continuous discharge book, or Merchant Mariner's Document issued by the Coast Guard which shows the holder to be a citizen of the United States.

(h) If an applicant claiming to be a citizen of the United States submits a delayed certificate of birth issued under a State's seal, it may be accepted as prima facie evidence of citizenship if no one of the requirements in paragraphs (a) to (g) of this section can be met by the applicant and in the absence of any collateral facts indicating fraud in its procurement.

(i) If no one of the requirements in paragraphs (a) to (h) of this section can be met by the applicant, he should make a statement to that effect, and in an attempt to establish citizenship, he may submit for consideration data of the following character:

(1) Report of the Census Bureau showing the earliest record of age or birth available. Request for such information should be addressed to the Director of the Census, Washington 25, D. C. In making such request, definite information must be furnished the Census Bureau as to the place of residence when the first census was taken after the birth of the applicant, giving the name of the street and the number of the house, or other identification of place where living, etc.; also names of parents or the names of other persons with whom residing on the date specified.

(2) School records, immigration records, or insurance policies (the latter must be at least 10 years old).

§ 125.25 *Aliens.* Alien registration records together with other papers and documents which indicate the country of which the applicant is a

citizen shall be accepted as evidence of citizenship in a foreign nation.

§ 125.27 *Sponsorship of applicant.* Applications for a Coast Guard Port Security Card shall not be accepted unless sponsored. The applicant shall be sponsored by an authorized official of applicant's employer or by an authorized official of applicant's labor union. Each company and each labor union concerned shall file with the appropriate Captain of the Port a list of officials of the company or union who are authorized to sponsor applicants. Other sponsorship may be accepted where the circumstances warrant.

§ 125.29 *Insufficient information* (a) If an application received by the Commandant does not contain replies sufficiently complete in his judgment for a determination whether the character and habits of life of the applicant are such as to warrant the belief that his presence on waterfront facilities, and port and harbor areas, including vessels and harbor craft therein, would not be inimical to the security of the United States, the Commandant, in an effort to avoid additional proceedings through credible explanation or to confine further inquiry to matters tending to prove or disprove unfavorable information, shall notify the applicant to submit under oath in writing or orally such further information as may be required for such determination.

(b) Upon receipt of a complete application and such further information as the Commandant may have required in those cases where the application as first submitted, was not deemed sufficient, a committee composed of a representative of the Legal Division, of the Merchant Vessel Personnel Division, and of the Intelligence Division, Coast Guard Headquarters, shall prepare an analysis of the information available to the Commandant and make recommendations for action by the Commandant.

§ 125.31 *Approval of applicant by Commandant.* (a) If the Commandant is satisfied that the character and habits of life of the applicant are not such as to warrant the belief that his presence on waterfront facilities, and port and harbor areas, including vessels and harbor craft therein, would be inimical to the security of the United States, he will direct that a Coast Guard Port Security Card be issued to the applicant.

(b) If the Commandant is not satisfied that the character and habits of life of the applicant are such as to warrant the belief that his presence on waterfront facilities, and port and harbor areas, including vessels and harbor craft therein, would not be inimical to the security of the United States, he will notify the applicant in writing as provided for in § 125.35.

§ 125.33 *Holders of Coast Guard Port Security Card.* (a) Whenever the Commandant is not satisfied that the character and habits of life of a holder of a Coast Guard Port Security Card are such as to warrant the belief that his presence on waterfront facilities, and port and harbor areas, including vessels and harbor craft therein, would not be inimical to the security of the United States, he will request from the holder under the procedures provided for in § 125.29 (a), replies under oath to such questions as he deems necessary to reach a determination on this issue.

(b) If the holder does not submit complete replies within 30 days after receipt of the request, the Commandant shall revoke and require the surrender of his Coast Guard Port Security Card.

(c) Upon receipt of complete replies and such other information as the Commandant may have required, the procedure prescribed in § 125.29 (b) shall be followed.

(d) If the Commandant is satisfied that the character and habits of life of the holder are such as to warrant the belief that his presence on waterfront facilities, and port and harbor areas, including vessels and harbor craft therein, would not be inimical to the security of the United States, he shall notify the holder accordingly.

(e) If the Commandant is not satisfied that the character and habits of life of the holder are such as to warrant the belief that his presence on waterfront facilities, and port and harbor areas, including vessels and harbor craft therein, would not be inimical to the security of the United States, he shall notify the holder in writing as provided for in § 125.35.

§ 125.35 *Notice by Commandant.* (a) The notice provided for in §§ 125.31 and 125.33 shall contain a statement of the reasons why the Commandant is not satisfied that the character and habits of life of the applicant or holder are such as to warrant the belief that his presence on waterfront facilities, and port and harbor areas, including vessels and harbor craft therein, would not be inimical to the security of the United States. Such notice shall be as specific and detailed as the interests of national security shall permit and shall include pertinent information such as names, dates, and places in such detail as to permit reasonable answer.

(b) The applicant or holder shall have 20 days from the date of receipt

of the notice of reasons to file written answer thereto. Such answer may include statements or affidavits by third parties or such other documents or evidence as the applicant or holder deems pertinent to the matters in question.

(c) Upon receipt of such answer the procedure prescribed in § 125.29 (b) shall be followed.

(d) If the Commandant is satisfied that the character and habits of life of the applicant or holder are such as to warrant the belief that his presence on waterfront facilities, and port and harbor areas, including vessels and harbor craft therein, would not be inimical to the security of the United States, he shall, in the case of an applicant, direct that a Coast Guard Port Security Card be issued to the applicant, or, in the case of a holder, notify him accordingly.

(e) If the Commandant is not satisfied that the applicant's or holder's character and habits of life are such as to warrant the belief that his presence on waterfront facilities, and port and harbor areas, including vessels and harbor craft therein, would not be inimical to the security of the United States, the Commandant shall refer the matter to a Hearing Board for hearing and recommendation in accordance with the provisions of this part.

§ 125.37 *Hearing Boards.* The Commandant may establish a Hearing Board in each Coast Guard District. The Commandant shall designate for each Hearing Board a Chairman, who shall be, so far as practicable, an officer of the Coast Guard. The Commandant shall designate, so far as practicable, a second member from a panel of persons representing labor named by the Secretary of Labor, and a third member from a panel of persons representing management named by the Secretary of Labor.

§ 125.39 *Notice by Hearing Board.* Whenever the Commandant refers a matter to a Hearing Board, the Chairman shall:

(a) Fix the time and place of the hearing;

(b) Inform the applicant or holder of the names of the members of the Hearing Board, their occupations, and the businesses or organizations with

which they are affiliated, of his privilege of challenge, and of the time and place of the hearing;

(c) Inform the applicant or holder of his privilege to appear before the Hearing Board in person or by counsel or representative of his choice, and to present testimonial and documentary evidence in his behalf, and to cross-examine any witnesses appearing before the Board; and

(d) Inform the applicant or holder that if within 10 days after receipt of the notice he does not request an opportunity to appear before the Hearing Board, either in person or by counsel or representative, the Hearing Board will proceed without further notice to him.

§ 125.41 *Challenges.* Within five days after receipt of the notice described in § 125.39 the applicant or holder may request disqualification of any member of the Hearing Board on the grounds of personal bias or other cause. The request shall be accompanied by an affidavit setting forth in detail the facts alleged to constitute grounds for disqualification. The affidavit may be supplemented by an oral presentation if desired. If after due consideration the Chairman believes a challenged member is qualified notwithstanding the challenge, he shall notify the person who made the challenge and arrange to proceed with the hearing. If the person who made the challenge takes exception to the ruling of the Chairman, the exception and data relating to the claim of disqualification shall be made a matter of record. If the Chairman finds that there is reasonable ground for disqualification he shall furnish the person who made the challenge with the name of an alternate in lieu of the challenged member and arrange to proceed with the hearing. In the event the Chairman is challenged, he shall forthwith notify the Commandant, furnishing the grounds for the claim of disqualification, and the Commandant shall act upon the challenge in accordance with the foregoing procedure. In addition to the right to challenge for cause, a person who has requested a hearing shall have two peremptory challenges, one challenge for the management member and one challenge for the labor member of the Hearing Board. Should the management member be so challenged, the person who made the challenge may elect to have the management member replaced by another management member or by a member not representing either management or labor; if the member peremptorily challenged represents labor, the person who made the challenge may elect to have the labor member replaced by another labor member or by a member not representing either management or labor.

§ 125.43 *Hearing procedure.* (a) Hearings shall be conducted in an orderly manner and in a serious, business-like atmosphere of dignity and decorum and shall be expedited as much as possible.

(b) The hearing shall be in open or closed session at the option of the applicant or holder.

(c) Testimony before the Hearing Board shall be given under oath or affirmation.

(d) The Chairman of the Hearing Board shall inform the applicant or holder of his right to:

(1) Participate in the hearing;

(2) Be represented by counsel of his choice;

(3) Present witnesses and offer other evidence in his own behalf and in refutation of the reasons set forth in the Notice of the Commandant; and

(4) Cross-examine any witnesses offered in support of such reasons.

(e) Hearings shall be opened by the reading of the Notice of the Commandant and the answer thereto. Any statement and affidavits filed by the applicant or holder may be incorporated in the record by reference.

(f) The Hearing Board may, in its discretion, invite any person to appear at the hearing and testify. However, the Board shall not be bound by the testimony of such witness by reason of having called him and shall have full right to cross-examine the witness. Every effort shall be made to produce material witnesses to testify in support of the reasons set forth in the Notice of the Commandant, in order that such witnesses may be confronted and cross-examined by the applicant or holder.

(g) The applicant or holder may introduce such evidence as may be relevant and pertinent. Rules of evidence shall not be binding on the Hearing Board, but reasonable restrictions may be imposed as to the relevancy, competency and materiality of matters considered. If the applicant or holder is, or may be, handicapped by the non-disclosure to him of confidential sources, or by the failure of witnesses to appear, the Hearing Board shall take the fact into consideration.

(h) The applicant or holder or his counsel or representative shall have the right to control the sequence of witnesses called by him.

(i) The Hearing Board shall give due consideration to documentary evidence developed by investigation, including membership cards, petitions bearing the applicant's or holder's signature, books, treatises or articles written by the applicant or holder and testimony by the applicant or holder before duly constituted authority.

(j) Complete verbatim stenographic transcription shall be made of the hearing by qualified reporters and the transcript shall constitute a permanent part of the record. Upon request, the applicant or holder or his counsel or representative shall be furnished, without cost, a copy of the transcript of the hearing.

(k) The Board shall reach its conclusion and base its determination on information presented at the hearing, together with such other information as may have been developed through investigation and inquiries or made available by the applicant or holder.

(l) If the applicant or holder fails, without good cause shown to the satisfaction of the chairman, to appear personally or to be represented before the Hearing Board, the Board shall proceed with consideration of the matter.

(m) The recommendation of the Hearing Board shall be in writing and shall be signed by all members of the Board. The Board shall forward to the Commandant, with its recommendation, a memorandum of reasons in support thereof. Should any member be in disagreement with the majority a dissent should be noted setting forth the reasons therefor. The recommendation of the Board, together with the complete record of the case, shall be sent to the Commandant as expeditiously as possible.

§ 125.45 *Action by Commandant.* (a) If, upon receipt of the Board's recommendation, the Commandant is satisfied that the character and habits of life of the applicant or holder are such as to warrant the belief that his presence on waterfront facilities, and port and harbor areas, including vessels and harbor craft therein, would not be inimical to the security of the United States, he shall, in the case of an applicant, direct that a Coast Guard Port Security Card be issued to the applicant, or, in the case of a holder, notify him accordingly.

(b) If, upon receipt of the Board's recommendation, the Commandant is not satisfied that the character and habits of life of the applicant or holder are such as to warrant the belief that his presence on waterfront facilities, and port and harbor areas, including vessels and harbor craft therein, would not be inimical to the

security of the United States, the Commandant shall:

(1) In the case of an applicant, notify him that a Coast Guard Port Security Card will not be issued to the applicant, or,

(2) In the case of a holder, revoke and require the surrender of his Coast Guard Port Security Card.

(c) Such applicant or holder shall be notified of his right, and shall have 20 days from the receipt of such notice within which, to appeal under this part.

§ 125.47 *Appeals.* (a) The Commandant shall establish at Coast Guard Headquarters, Washington, D. C., an Appeal Board to hear appeals provided for in this part. The Commandant shall designate for the Appeal Board a Chairman, who shall be, so far as practicable, an officer of the Coast Guard. The Commandant shall designate, so far as practicable, a member from a panel of persons representing management nominated by the Secretary of Labor, and a member from a panel of persons representing labor nominated by the Secretary of Labor. The Commandant shall insure that persons designated as Appeal Board members have suitable security clearance. The Chairman of the Appeal Board shall make all arrangements incident to the business of the Appeal Board.

(b) If an applicant or holder appeals to the Appeal Board within 20 days after receipt of notice of his right to appeal under this part, his appeal shall be handled under the same procedure as that specified in § 125.39, and the privilege of challenge may be exercised through the same procedure as that specified in § 125.41.

(c) Appeal Board proceeding shall be conducted in the same manner as that specified in § 125.43.

§ 125.49 *Action by Commandant after appeal.* (a) If, upon receipt of the Appeal Board's recommendation, the Commandant is satisfied that the character and habits of life of the applicant or holder are such as to warrant the belief that his presence on waterfront facilities, and port and harbor areas, including vessels and harbor craft therein, would not be inimical to the security of the United States, he shall, in the case of an applicant, direct that a Coast Guard Port Security Card be issued to the applicant, or in the case of a holder, notify him accordingly.

(b) If, upon receipt of the Appeal Board's recommendation, the Commandant is not satisfied that the character and habits of life of the applicant or holder are such as to warrant the belief that his presence on waterfront facilities, and port and harbor areas, including vessels and harbor craft therein, would not be inimical to the security of the United States, the Commandant shall notify the applicant or holder that his appeal is denied.

§ 125.51 *Replacement of lost Coast Guard Port Security Card.* (a) Any person whose Coast Guard Port Security Card has been stolen, lost or destroyed, shall report that fact to a Coast Guard Port Security Unit or Captain of the Port as soon thereafter as possible.

(b) A person who has lost a Coast Guard Port Security Card may apply for a replacement card by submitting "An Application for Replacement of Lost Port Security Card" (Form CG 2685A) to a Coast Guard Port Security Unit. A replacement will be issued only after a full explanation of the loss of the Coast Guard Port Security Card is made in writing to the Coast Guard and after a full check is made and authorization is granted by the Commandant.

(c) Any person to whom a Coast Guard Port Security Card has been issued as a replacement for a lost card, shall immediately surrender the original card to the nearest Coast Guard Port Security Unit or Captain of the Port if the original card should be recovered.

§ 125.53 *Requirements for credentials; certain vessels operating on navigable waters of the United States (including the Great Lakes and Western Rivers).* (a) Every person desiring access to vessels, except public vessels, falling within any of the categories listed below, as a master, person in charge, or member of the crew thereof, shall be required to be in possession of one of the identification credentials listed in § 125.09.

(1) Towing vessels, barges, and lighters operating in the navigable waters of the continental United States (including the Great Lakes and Western Rivers).

(2) Harbor craft, such as water taxis, junk boats, garbage disposal boats, bum boats, supply boats, repair boats, and ship cleaning boats, which in the course of their normal operations service or contact vessels, foreign or domestic, public or merchant, in the navigable waters of the continental United States (including the Great Lakes and Western Rivers).

(b) The term "master, person in charge, or member of the crew" shall be deemed to include any person who serves on board in any capacity concerned with the operation, maintenance, or administration of the vessel or its cargo.

(c) Where the Coast Guard Port Security Card (Form CG 2514) is to be used as the identification required by paragraph (a) of this section, application for such card may be made immediately by the persons concerned. The issuance of the Coast Guard Port Security Card shall be in the form and manner prescribed by § 125.11.

(d) At the discretion of the District Commander any person desiring access to vessels of the categories named in this section, who may be required by the provisions hereof to possess identification credentials, may be furnished a letter signed by the District Commander or the Captain of the Port and this letter shall serve in lieu of a Coast Guard Port Security Card and will authorize such access for a period not to exceed 60 days, and such a letter issued shall be deemed to be satisfactory identification within the meaning of § 125.09. The issuance of the letter shall be subject to the following conditions:

(1) The services of the person are necessary to avoid delay in the operation of the vessel;

(2) The person does not possess one of the identification credentials listed in § 125.09.

(3) The person has filed his application for a Coast Guard Port Security Card or submits his application before the letter is issued; and,

(4) The person has been screened by the District Commander or Captain of the Port and such officer is satisfied concerning the eligibility of the applicant to receive a temporary letter.

§ 125.55 *Outstanding Coast Guard Port Security Cards and applications.* (a) Coast Guard Port Security Cards will be accepted as valid until cancelled, revoked, or suspended by proper authority.

(b) A person who has filed an application for a Coast Guard Port Security Card and who has not received such a document prior to May 1, 1956, shall submit a new application in accordance with the requirements of this part.

§ 125.57 *Applications previously denied.* A person who has been denied a Coast Guard Port Security Card before May 1, 1956, may file a new application for such a document in accordance with the requirements of this part.

It is hereby found that compliance with the notice of proposed rule making, public rule making procedures thereon, and effective date requirements of the Administrative Procedure Act in contrary to the public interest since this revision of 33 CFR Part 125 is to implement more

effectively Executive Order 10173, as amended, and in the public interest should be placed in operation as soon as possible. This amendatory regulation shall become effective May 1, 1956.

Dated: April 27, 1956.

[SEAL] A. C. RICHMOND,
Vice Admiral, U. S. Coast Guard, Commandant.

[F. R. Doc. 56-3462; Filed, May 1, 1956; 12:30 p. m.]

TITLE 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury

Subchapter N—Explosives or Other Dangerous Articles or Substances and Combustible Liquids on Board Vessels

[CGFR 56-21]

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

MISCELLANEOUS STORAGE REQUIREMENTS

A notice regarding proposed changes in the navigation and vessel inspection regulations was published in the Federal Register dated March 1, 1956 (21 F. R. 1350–1356), as Items I through XVI on the Agenda to be considered by the Merchant Marine Council, and a public hearing was held on April 24, 1956, at Washington, D. C. This document is the first of a series of documents covering the regulations considered at this public hearing. Another document will be published containing all the miscellaneous amendments regarding Dangerous Cargo Regulations in Item XIII on the Agenda.

After the public hearing held on April 24, 1956, written and oral requests were received petitioning that the amendments concerning motor fuel antiknock compound, oakum, chromic acid, and chlorate and borate mixtures be placed in effect immediately and prior to publication of all the miscellaneous amendments contained in the Agenda. Since these changes were not commented on at the public hearing, and since these amendments will relax present stowage requirements, these changes shall be placed in effect immediately.

The amendment to 46 CFR 146.25–200, Table H, will permit stowage of authorized tank cars containing motor fuel antiknock compound "under deck away from heat" in addition to the presently authorized stowage "on deck in open" and "on deck under cover."

The amendment to 46 CFR 146.27–100 Table K, will permit oakum to be shipped in fiberboard boxes in addition to presently authorized bound bales and wooden boxes.

The amendment to 46 CFR 146.22–100, Table E, will exempt chlorate and borate mixtures containing 25 percent or less chlorate and no other hazardous additives from the regulations, as well as provide for the use of multiwall paper bags (ICC–44C, 44D), for shipment of chlorate mixtures containing more than 25 percent and less than 50 percent chlorate.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Treasury Department Order No. 120, dated July 31, 1950 (15 F. R. 6521), and Treasury Department Order 167–14, dated November 26, 1954 (19 F. R. 8026), to promulgate regulations in accordance with the statutes cited with the regulations below, the following amendments are prescribed and shall become effective on the date of publication of this document in the Federal Register:

SUBPART—DETAILED REGULATIONS GOVERNING INFLAMMABLE SOLIDS AND OXIDIZING MATERIALS

Section 146.22–100 *Table E—Classification: Inflammable solids and oxidizing materials* is amended by revising the requirements regarding certain articles as follows:

a. For "chlorate and borate mixtures" and "chlorate and magnesium chloride mixtures" as follows:

1. In column 1 the note is revised to read as follows:

NOTE: Such mixtures containing 25 percent or less chlorate and no other hazardous additives are not subject to the regulations in this part.

2. In column 4 under "mixtures containing more than 25 percent chlorate but less than 50 percent may also be accepted in:" add:

"Multi-wall paper bags: (ICC–44C, 44D) not over 50 lb. net wt."

b. For "chromic acid," "chromic anhydride," and "chromium trioxide" as follows:

1. In column 4 under "Stowage" add: "Tween decks readily accessible."

SUBPART—DETAILED REGULATIONS GOVERNING POISONOUS ARTICLES

Section 146.25–200 *Table H—Classification: Class B; Less dangerous poisons* is amended by changing requirements for the article "motor fuel antiknock compound" as follows:

a. In column 4 change "tank cars (ICC–105A300, 105A300W)" etc., to read as follows: "tank cars (ICC–105A300, 105A300W) stenciled on both sides 'for motor fuel antiknock compound only.' In addition to stowages listed, authorized tank cars may be stowed 'under deck away from heat.'"

SUBPART—DETAILED REGULATIONS GOVERNING HAZARDOUS ARTICLES

Section 146.27–100 *Table K—Classification: Hazardous articles* is amended by changing requirements for the article "Oakum" "Twisted jute packing (rope) (treated or untreated)" as follows:

a. In columns 4, 5, 6, and 7, under "Outside containers," add: "Fiberboard boxes."

(R. S. 4405, as amended, 4462, as amended, and 4472, as amended; 46 U. S. C. 375, 416, 170. Interpret or apply sec. 3, 68 Stat. 675; 50 U. S. C. 198; E. O. 10402, 17 F. R. 9917, 3 CFR, 1952 Supp.)

Dated: May 18, 1956.

[SEAL] A. C. RICHMOND,
Vice Admiral, U. S. Coast Guard, Commandant.

[F. R. Doc. 56-4115; Filed, May 24, 1956; 8:49 a. m.]

EQUIPMENT APPROVED BY THE COMMANDANT

[EDITOR'S NOTE.—Due to space limitations, it is not possible to publish the documents regarding approvals and terminations of approvals of equipment published in the Federal Register dated May 15, 1956 (CGFR 56–17–CGFR 56–18). Copies of these documents may be obtained from the Superintendent of Documents, Washington 25, D. C.]

AFFIDAVITS

The following affidavits were accepted during the period from 15 April 1956 to 15 May 1956:

Ross-Meehan Foundries, 1601 Carter St., Chattanooga 1, Tenn., CASTINGS.

Associated Piping & Engineering Co., Inc., 1707 West Compton Boulevard, Post Office Box 590, Compton, Calif., FLANGES.

Jas. P. Marsh Corporation, 3501 Howard St., Skokie, Ill., VALVES.

FUSIBLE PLUGS

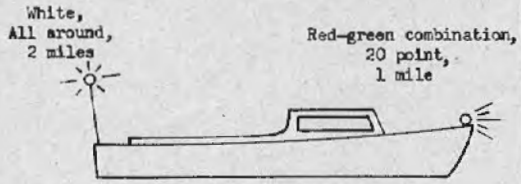
The regulations prescribed in Subpart 162.014, Subchapter Q, Specifications, require that manufacturers submit samples from each heat of fusible plugs for test prior to plugs manufactured from the heat being used on vessels subject to inspection by the Coast Guard. A list of approved heats which have been tested and found acceptable during the period from 15 April 1956 to 15 May 1956 is as follows:

The Lunkenheimer Company, Cincinnati 14, Ohio. Heat Nos. 528, 529, 530, 531 and 532.

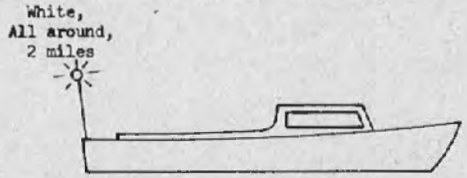
CHANGES IN LIGHTS FOR INBOARDS, OUTBOARDS, AND AUXILIARIES

Prepared by UNITED STATES COAST GUARD

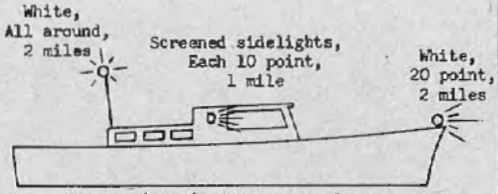
PREVIOUS LIGHTS for Inland Waters, Western Rivers, Great Lakes



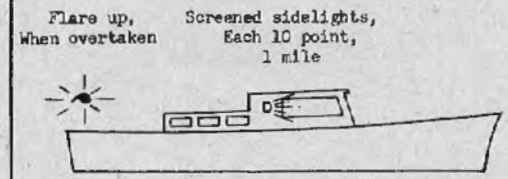
Under 26 ft., power alone



Under 26 ft., power and sail or sail alone



From 26 to 65 ft., power alone



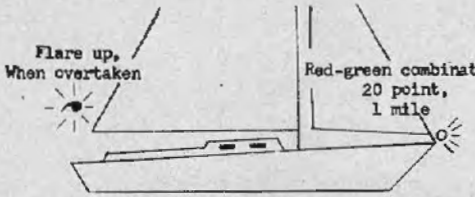
From 26 to 65 ft., power and sail or sail alone

NOTE: A flare up light is required to be kept on hand in the case of motorboats under sail and power, or sail alone. It is used when such a boat is being overtaken.

PRESENT LIGHTS for Inland Waters, Western Rivers, Great Lakes Option #1

SAME

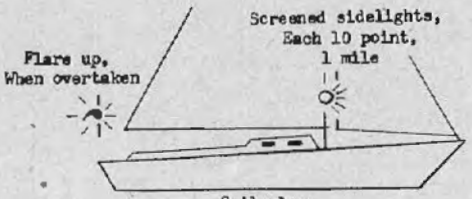
Power alone, or sail and power



Under 26 ft., sail alone

SAME

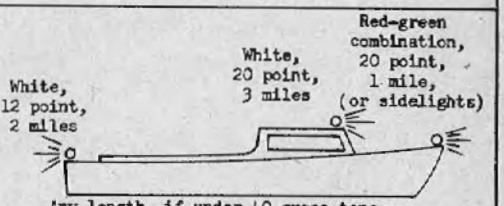
Power alone, or sail and power



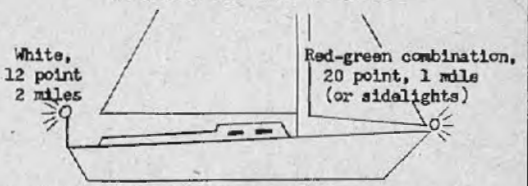
Sail alone

NOTE: The word "same" means same lights as in left-hand column. This option allows motorboats to carry previous lights, but requires auxiliaries to exhibit them differently.

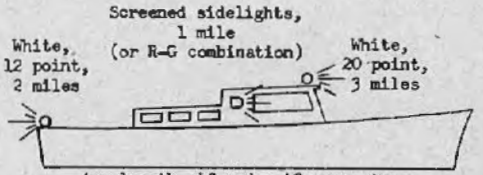
PRESENT LIGHTS for Inland Waters, Western Rivers, Great Lakes Option #2



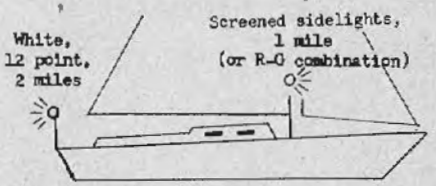
Any length, if under 40 gross tons, power alone or sail and power



Any length, if under 40 gross tons, sail alone



Any length, if under 40 gross tons, power alone or sail and power



Any length, if under 40 gross tons, sail alone

NOTE: In all cases a combination lantern may be used in lieu of sidelights, or vice versa. However, the 20 pt. white light must be higher (at least 3 feet if the combination lantern is used).

NOTE: Option #1 lights cannot be used on the High Seas. Option #2 lights permit inboards, outboards, and auxiliaries to go to sea without a change in lights.

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