

PROCEEDINGS OF THE MERCHANT MARINE COUNCIL

UNITED STATES



COAST GUARD

CG 129

The printing of this publication has been approved by the Director of the Bureau of the Budget, March 11, 1952.

This copy for
not less than
20 readers.
PASS IT ALONG

Vol. 9

June 1952

No. 6



MERCHANT MARINE COUNCIL

Published monthly at Coast Guard Headquarters, Washington 25, D. C., under the auspices of the Merchant Marine Council, in the interest of safety at sea. Special permission for republication, either in whole or in part, with the exception of copyrighted articles or pictures, is not required provided credit is given to the Proceedings of the Merchant Marine Council.

The
Merchant Marine Council
of the United States
Coast Guard

VICE ADMIRAL MERLIN O'NEILL, USCG
Commandant

REAR ADMIRAL H. C. SHEPHEARD, USCG
Chief, Office of Merchant Marine
Safety
Chairman

CAPTAIN R. A. SMYTH, USCG
Assistant Chief, Office of Merchant
Marine Safety
Vice Chairman

REAR ADMIRAL K. K. COWART, USCG
Engineer in Chief
Member

REAR ADMIRAL R. E. WOOD, USCG
Deputy Chief of Staff
Member

CAPTAIN J. C. WENDLAND, USCG
Special Member

CAPTAIN P. A. OVENDEN, USCG
Chief, Merchant Vessel Inspection
Division
Member

CAPTAIN C. P. MURPHY, USCG
Chief, Merchant Marine Technical
Division
Member

COMMANDER C. H. BROACH, USCG
Chief, Merchant Vessel Personnel
Division
Member

CAPTAIN G. A. LITTLEFIELD, USCG
Executive Secretary and Member

MR. K. S. HARRISON
Chief Counsel

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

CONTENTS

	Page
COUNCIL ACTIVITIES	130
FEATURES	
Can the U. S. Coast Guard Help	131
Electrical Safety Features	133
Light List, 1952 Editions	136
Seasickness	136
Check Your Buoyant Cushions	137
Why Learn the Hard Way	138
Numbered and Undocumented Vessels	140
Your Fact Forum	141
LESSONS FROM CASUALTIES	
Personnel Injuries (What! Again?)	142
Further Painting Observations	144
APPENDIX	
Amendments to Regulations	146
Navigation and Vessel Inspection Circular Nos. 3-52 and 4-52	146
Electrical Appliances	148
Equipment Approved by the Commandant	148
Merchant Marine Personnel Statistics	151

COVER PICTURE

Remote and beautiful is this site of the U. S. Coast Guard Light Station at Cape St. Elias, on the south end of Kayak Island in the Gulf of Alaska.

In the right foreground is the 1,000,000-candlepower light, on a white square tower at the corner of a rectangular building. It was established in 1916. The lantern is 55 feet above ground, and 85 feet above water. Facilities include a radiobeacon and siren fog signal.

To the left, in the background, is jagged Pinnacle Rock, nearly 1,800 feet high. Eagles nest at its peak, and sea lions inhabit the base. At low tide one may walk "high and dry" on a sand bar between the station and the rock.

DISTRIBUTION (SDL 49):

- A: a, aa, b, c, d, dd (2); remainder (1).
- B: e (35); c (16); g (5); f (4); h (3); d (2); remainder (1).
- C: All (1).
- D: All (1).
- E: mo (1).
- List 141M.

COUNCIL ACTIVITIES

NEW ASSIGNMENT

On April 1, 1952, Captain Gordon A. Littlefield, USCG, after two and one-half years as Senior Coast Guard Merchant Marine Detail Officer in London, England, officially took office as Executive Secretary of the Merchant Marine Council, relieving Captain James C. Wendland, USCG.

The Merchant Marine Council held a public hearing on March 25, 1952, at U. S. Coast Guard Headquarters, Washington, D. C., for the purpose of receiving comments on proposed amendments to the present regulations and proposed new regulations. The announcement of this public hearing appeared in the March 1952 issue of the "Proceedings" and in the Federal Register of February 27, 1952. In addition to the members of the Merchant Marine Council on duty at Coast Guard Headquarters the follow-

ing officers from Coast Guard Districts sat as members of the Merchant Marine Council: Rear Adm. Raymond T. McElligott, Commander, Twelfth Coast Guard District; Rear Adm. Louis B. Olson, Commander, Third Coast Guard District; Capt. George P. Kenney, Marine Inspection Officer, Ninth Coast Guard District; Commander Herbert E. Peters, Marine Inspection Officer, Eleventh Coast Guard District; and Mr. John F. Oetli, Marine Inspection Officer, Eighth Coast Guard District.

Numerous comments and suggestions were submitted to the Merchant Marine Council on the proposed amendments and new regulations which have necessitated further study before final approval can be given. The proposed changes recommended by the Council to the Commandant will appear in the Federal Register after they have been approved by the

(Continued on page 140)

CAN THE U. S. COAST GUARD HELP?

The following address was given by Lt. Comdr. C. J. Maguire, U. S. Coast Guard, at the Twenty-second Annual Safety Convention and Exposition held by the Greater New York Safety Council and cooperating agencies in New York City, April 1-4, 1952. Lt. Comdr. C. J. Maguire, attached to the U. S. Coast Guard Marine Investigation Division, New York, presents an interesting sidelight on the practical aspects of marine safety.

I believe that in speaking to you for this brief time tonight I may have at least one novelty to offer. For what I am asking you to do is precisely to assist in putting me out of a job. As a matter of fact I am on pretty safe ground in asking for this for I am bound to get what I ask for. If what I have to say were 100 percent effective, you would assist in doing away with my job. On the other hand, Captain Day, the honorable chairman, has assured me that if this is not 100 percent effective, he will see to it that I lose my job.

In this situation I can't lose.

Now, when I first contemplated the topic for this evening, I must admit that it definitely gave me pause. How can the Coast Guard assist in reaching, with the Safety Program, the man who needs to know—and does not?

It is clear that this man we are talking about will not be here tonight. We may assume that you don't know him—and that I don't know him. And my first personal reaction was a rather pessimistic one. The Coast Guard can't help—I thought.

Perhaps my work had something to do with this attitude. The unit to which I am presently assigned is a very small section of the Marine Inspection Office. Its formal name is the Merchant Marine Investigating Unit.

It is our misfortune, in this unit, to see the worst of everything. This unit is called upon to investigate marine casualties of all kinds, to investigate misconduct, negligence and willful violation of the navigation laws, and, we are called upon, often, to assess penalties against offenders.

You see, before this unit has anything to do, something must have gone wrong. By the time the Investigating Unit is at work, the damage has already been done. (Aside for a moment, I might say that you can see easily how my job could vanish into thin air. If you can do away with accidents—we have no work left.)

However, we might suppose that from having this worm's-eye view of boating, from seeing always, in the line of work, the trouble that has already happened, may have come that temporary pessimistic reaction that I felt.

I should like to emphasize, at this time, that this reaction was purely personal. I am speaking to you tonight as an individual and my comments are not necessarily Coast Guard policy. Very definitely, on this point, my reaction was completely opposite to the position of the service.

But when I began to think about it, my feeling did change, and I'd like to tell you why. First of all, common sense tells us that the Coast Guard has helped in the past. You are already so familiar with this fact that a mere summary of activities will be sufficient for our purpose here.

The inspection of vessels to which the inspection laws apply has been of great use in the prevention of accidents, and I might add here that the work of the investigator is not merely the ghoulish activity that you might suppose, but is helpful in providing a basis for new policy or new regulation to promote safety.

The providing of aids to navigation, buoys, lighthouses, and the like, is a silent and undramatic type of work, but the implicit reliance we place on these aids is proof of their contribution to the safety program.

The work of the Coast Guard auxiliary you all know, and season after season these volunteer workers give their time and energies to the courteous examination of boats and to the instructions of anyone who seeks help.

And the work of the Lifeboat Stations you know. Many of these stations are manned by descendants of those who saved lives from the surf generations ago, and their special skills and their courage have received world-wide recognition.

It certainly does appear reasonable that if the Coast Guard has been able to help this way in the past it should be able to continue.

But to clarify our thinking about reaching the man who needs to know in the future, let me note what might appear to be barriers to extending the program.

The first barrier lies in a way of thinking.

If we say that there is an irreducible minimum of accidents that will happen, if we say that there will always be a certain amount of ignorance or carelessness that can never

be corrected, if we say that there will always be a small minority of willful lawbreakers, and reckless chance-takers, whom we can punish but whom we cannot prevent—if we say these things, then we are saying that there is no hope. What we are saying, in effect, is that the man who needs to know—and does not—can't be reached at all.

It doesn't take profound thinking to see that this is merely a matter of attitude and that it is wrong.

The old slogan has been repeated so often that we cease to recognize its meaning. ACCIDENTS DON'T HAPPEN. THEY ARE CAUSED. And since they are caused, they are preventable. Useful as statistics are, you can't argue from statistics that there will always be a certain minimum number of small-boat casualties.

When you take your family for a week-end cruise, or when your neighbor goes on a fishing trip with his club, you are not figures in a computation of odds. You are not a portion of a curve of probability. You, and all others on the water, are intelligent humans who are, for the greatest part, in control of your circumstances.

Rear Admiral Olson, the Commander of this Coast Guard District, and of the entire Eastern Area, takes a very special interest in the question of small-boat safety. Just recently he was pointing out a favorite analogy of his in this connection. He remarked that there was no great intrinsic hazard in the use of small boats and that one is probably safer in a well-built boat on the water than one is driving a car.

But, he pointed out, an inexperienced, but careful automobile driver, is safer than a careless, experienced driver. Afloat however, the inexperienced boatman is a potential hazard. This you know to be true, but you know also that the condition can be corrected.

But what about the willful violator? Is it true that he can only be punished and not deterred? I don't think so.

First of all, in many ways the apparently willful offender, when he himself is personally involved in the operation of the boat, is very similar in some respects to the indeliberate one who errs through ignorance. The reckless operator who takes apparent pleasure in terrorizing the slower moving and the more prudent certainly appears to be a ruthless character.

But isn't he also operating in ignorance? Maybe he knew once the cata-

strophic result of reckless operation. But isn't he taking chances now simply because he is not thinking of the results? Hasn't he forgotten the little girl in California who was maimed in such a case? And the man in Lake Champlain last year whose existence wasn't even known to the operator of the boat that killed him?

Or take the case of the man who overloads his boat, whether to make money or simply to accommodate unexpected guests. Is he trying to injure them? Or would he act in the same way if he had vividly in his imagination the boats that have lost stability and lost lives because of overloading?

When we are engaged on a recreational expedition, we dislike to have grim reminders with us. But I think that a copy of the Proceedings of the Merchant Marine Council devoted to lessons from motorboat casualties belongs on every boat that goes out on water this year. And I think that you can help by coming in, or writing in, and getting copies of that booklet off our hands and into your boats.

If the spectacular results of criminal carelessness are made clear, willful violators, I believe, will "see the light" along with the indeliberate violator. Some few may remain and may have to be dealt with more severely. Some police action may be necessary. And, in this connection, I would like to draw your attention to a situation that cooperation can correct.

The facilities of the Coast Guard, whether for assistance, apprehension or investigation, can best be used when they are put to work on real cases.

For one example, I cannot give you any estimate of the number of cases that have been investigated fruitlessly in circumstances where it developed that the Coast Guard had no jurisdiction or where what was required was not a determination of the cause of a casualty but a club to be used in effecting settlement of a claim.

But these cases are, I admit, minor. The Coast Guard is not unwilling to hear complaints and act on them. Remember, as I mentioned before, that my job depends upon just that.

But far more serious is another form of waste.

Last fall I found that a patrol boat operating in Long Island Sound had spent one whole day in answering four calls for assistance at widely separated points. And in every one of the four cases, when it arrived at the scene of the call, there was nothing there whatsoever.

It is often possible that a prudent operator will call for assistance and

then find that it will not be needed. In a case like that much time and money can be saved by canceling the call instead of forgetting about it.

Another case. The *PELICAN* tragedy is too fresh in all minds for me to dwell on it, and the conclusions of the Board that investigated the matter are summarized in the April issue of the Proceedings of the Merchant Marine Council for you to read. But I would like to call your attention here to this point—that at the time the call for assistance to the *PELICAN* came to the Coast Guard Station nearby, the facilities of that station were engaged several miles away in the opposite direction—on a false alarm!

A situation like this, in fact all of these situations dealing with the inevitability of accidents through one reason or another, can be cured, as you have already heard this evening, and this apparent barrier to extended work just does not exist.

I mentioned another barrier. This one I think is amusing, and I'll present it to you just as it came to me. A visitor to our office was complaining. He told me that he had all intentions of operating his boat wisely and safely, but, he said "Everything gets me mixed up. When I went to register my boat, I went around to the Customs and I got sent to the Coast Guard, and you people gave me all kinds of forms and six different pamphlets and rules of the road and motorboat regulations until I was dizzy."

"Then," he said, "I went to the motorboat show to get wise about things. I was interested in safety—and I found I had to climb to the top floor to find it. I looked at the Coast Guard exhibit and I saw a good visual demonstration in a tank of water of what happened to poor life preservers and the way the approved life preservers float. I thought I'd like to

take something home and I asked the man there for some printed matter. He gave me this." [Exhibit.] The visitor read from it. (Navigation and Vessel Inspection Circular 6-50.)

"What's the matter with you people? Did a bunch of lawyers write this?"

Now, I submit first of all that my visitor was being a bit captious. He did understand the meaning of the circular as a whole, and he knew that it applied to him and that the enumeration of exceptions to the law need not confuse him.

But I'll tell you something else. A bunch of lawyers *did* write it. And I'll show you why.

Just a few weeks ago, another man came into our office with a problem. His problem was that he owned a motorboat and he wanted to charter it out but still operate it, and he wanted to avoid having a license from Customs, and he wanted to avoid inspection, and he wanted to avoid having to buy life jackets, and if anybody was killed, he wanted to have no responsibility at all. He had come to the Coast Guard for advice on how to accomplish this.

I can tell you that we saw immediately that we had there a man who did not know—and needed to know. I think that by the time he left he had learned something. He might have thought us a little unsympathetic, but at least he learned the easy way.

But it is people like this man who makes it necessary that lawyers write the rules. All of the Coast Guard's authority to regulate and control boating comes from Congress. The laws must be framed so that they apply to those for whom they are intended, to all of those for whom they are intended, and not to those who are supposed to be exempted. From this necessity for provision comes the form in which the laws are cast. But this causes no difficulty to the one who wants to obey the law, and who wants, not immunity from responsibility, but safety.

One last point I would like to make concerning the Coast Guard powers with respect to the laws governing boating. I personally have found that two misconceptions exist among the boat owners and boat users. One is that the Coast Guard has wider powers than it actually has. I cannot tell you how many persons I have spoken to who believe that all boats carrying passengers for hire are "inspected," whereas, as a matter of fact, a large percentage of such vessels are exempted from inspection under the law.

The other misconception is that the Coast Guard makes the laws. This it does not. It is simply charged

(Continued on page 141)



Courtesy Maritime Reporter.

ELECTRICAL SAFETY FEATURES

(Excerpts from an address on Electrical Safety Features for Merchant Vessels Under the Jurisdiction of the U. S. Coast Guard given by Commander Joseph B. Feder, USCG, at the Philadelphia (Pa.) Section Meeting of the Society of Naval Architects and Marine Engineers on April 18, 1952.)

A study of the electrical installations on merchant vessels, which includes passenger, cargo and tank vessel, reveals that a number of recognized hazards are present, although of course, each vessel may not necessarily possess all. Among them might be:

- (1) Fire hazard wherever electrical potential is present which, generally speaking, covers a far greater area on a vessel than that of any other type of installation;
- (2) Improper, or lack of, electrical grounding;
- (3) Collection of water in waterproof enclosures caused by "breathing";
- (4) Increase of fuse capacities beyond those initially specified;
- (5) Equipment in spaces where inflammable vapors or gases may normally be expected to accumulate;
- (6) Control panels, including group controls, into which it is necessary to reach to operate disconnect switches;
- (7) Control panels and other types of panels enclosures in which more than one source of potential exists;
- (8) Lifeboat control arrangement;
- (9) Equipment which possesses electrical clearances lower than the permissible minima;
- (10) Overheating, with particular reference to the use of incandescent lamps in excess of those for which the equipment is designed; and
- (11) Improper deck covering and equipment in hospital space operating rooms.

The foregoing list probably could be amplified, but suffice it to say that it represents a fair cross section of some of the generally acknowledged electrical hazards on inspected merchant vessels today.

The first hazard mentioned needs little amplification since it is acknowledged that wherever electrical potential is present there also exists a fire risk, and, insofar as shipboard installations on inspected merchant vessels are concerned, this includes all potential employed with but few exceptions.

In the matter of grounding, it is generally agreed that, to effect safety, the exposed non-current-carrying metal parts of fixed or portable electrical equipment, when operating with any terminal or connection at a potential to ground which is considered hazardous, should be grounded. The results of numerous investigations made by independent groups interested in various industries and conducted over a period of many years to determine the value of this potential indicate that a safe figure is 16 volts to ground. * * * A potential of this relatively low magnitude is not supported by the present National Electrical Code, but these latter requirements are in the process of change so that a lower potential than that now given will be specified. Moreover, on board ship, the likelihood of effecting an electrical path of much lower resistance between an individual and the hull (ground), because of the ever-present moisture conditions, is generally acknowledged, and this fact should have a direct bearing on further lowering this potential.

An enclosure which is designed to comply with and pass waterproof requirements and tests will also possess an inherent characteristic known as "breathing." This type of "breathing" can be briefly defined as the passage of air from or into the enclosure interior resulting from any difference in pressure between the inside and outside of the enclosure. * * * with the entrance of moisture-laden air into the enclosure and its contact with cooler metal within, condensation develops. Since there is little or no means of escape once the vapor in the air has condensed, the water accumulates and can readily cause trouble. This source of trouble should be eliminated, and one simple means of doing so, it seems, would be to provide a drain at the lowest point of the enclosure so designed that water or spray, under normal service, cannot reach the interior, but, should some enter under extreme conditions, drainage thereof will occur when these conditions cease to exist. * * *

Resorting to an indiscriminate increase in the rating of fuses when replaced, in the belief that such a selection would minimize the frequency of replacement, obviously introduces the possibility of conductor overheating and should not be permitted. * * * The procedure of "upping" the fuse rating will not always reduce the frequency of replacement since "blowing" of a fuse may be caused by heating from poor contact at or near the fuse. * * * A cir-

cuit overcurrent protective device such as a fuse or circuit breaker has two main purposes; one is to protect the conductors against sustained overcurrents of normal operating magnitude (such as might be created by operating too many lights at the same time, or an equivalent); the other is to protect the conductors and certain apparatus from excessive currents such as would be produced by short circuits. The circuit breaker and fuse compete with one another on many points including those of safety, first cost, convenience, appearance, performance, and available ratings. There are times when safety and speed of operation are important elements of performance, but only at times. * * *

There has been considerable discussion in the recent past on the subject of electrical equipment in spaces where flammable vapors or gases may normally be expected to accumulate. * * * The preferred installation in these spaces is that which keeps the electrical equipment at a minimum and, in the majority of cases, the complete elimination of motors, control, and distribution equipment. * * * can be effected practically with but little sacrifice in operating efficiency. However, where such equipment is installed, it should be of an explosion-proof type and so classified by Underwriters' Laboratories, Inc., for the flammable and explosive mixtures of the specific vapors and for the gases which may normally be expected to accumulate by virtue of the cargo which the vessel is certificated to carry. The use of explosion-proof lighting fixtures in these spaces does not necessarily preclude the existence of hazards from this source since, with most of the approved units, no provision is made to prevent completing the circuit to the lamp should the cover (globe or lens, with or without bezel) be improperly secured. For obvious reasons, the use of portable lights employing connecting cable is to be avoided.

A number of personal injury cases have been reported which point out the hazard of having disconnect switches mounted wholly within an enclosure. Since the operation of the disconnect switch can only be effected by physically grasping and moving the switch handle which is located beside energized electrical conductors or bare metal parts, a very definite hazard is present. * * * Disconnect switches should be so arranged as to be operative from outside the enclosure and so constructed that "pulling" the switch to deenergize the equipment will not be a hazard to the

operator. Industrial codes require that both switches and circuit breakers be of the externally operable type enclosed in metal boxes or cabinet. The present Coast Guard regulations require motor control disconnect switches in waterproof enclosures to be externally operative, and, while there is no present regulation prohibiting the placement of disconnect switches wholly within nonwaterproof enclosures, it is felt that the hazard involved dictates that remedial action should be taken to effect external operation of all enclosed disconnect switches.

The increased use of dead front motor group control panels aboard merchant vessels has made it evident that some recognition should be given specifically to these panels since it is obvious that they are a partial combination of a switchboard and an individual controller. Of the two basic designs which involve (1) an assembly of individual controllers and (2) an assembly of controller units in one group and their disconnecting means in another, all mounted within one large compartment with no insulating barriers separating disconnects and/or controllers, it would appear that the former design offers a more practical solution of effecting the essential safety features and is considered the preferred arrangement. Among the safety features of the former design might be included the following:

- (1) Each controller compartment should be provided with a hinged front door giving access only to that compartment;
- (2) The unit disconnect device should be a motor-circuit switch, rated in horsepower, or a circuit breaker, except as permitted by the current National Electrical Code;
- (3) The opening of the unit disconnect device should be necessary before its associated door can be opened;
- (4) The opening of the unit disconnect device should deenergize all components mounted on its associated door as well as those which are within the panel except that this disconnect need not open circuits of a manually operated deenergizing plug mounted wholly within the enclosure and connected directly ahead of the disconnect or need not open circuits whose nominal potential is 24 volts or less;
- (5) Overload relays should have an externally operative reset mechanism;
- (6) Each circuit breaker should be removable from the front of the compartment;

- (7) Regardless of whether or not electrical equipment is mounted thereon, each door which has a height of 45 inches and more or has a width exceeding 20 inches should be provided with both a stop and a positioner;
- (8) Regardless of whether or not electrical equipment is mounted thereon, each door whose measurements are less than 45 inches in height by 20 inches or less in width should be provided with a stop; and
- (9) Identifying name plates should be provided on the outside of each compartment door.

Generally, the practice of employing potential from more than one source of supply in a control or indicating panel introduces a condition which is hazardous to life. * * * Every effort should be made so that no control or indicating panel in new installations employs circuits the potential for which is obtained from more than one source of supply. It



Courtesy Maritime Reporter.

is appreciated that, in the design of some of these panels, it is impractical to effect satisfactory performance if this restriction is to be complied with, and, for such panels, it will be required, in the interest of safety, to post a permanent cautionary sign on the external surface of the enclosure door or cover. * * *

During recent years, there have been occasions when the electrical equipment controlling the operation of lifeboats has not performed properly and, in many instances, an accusing finger has been pointed to the control circuit equipment. * * * Based upon a comprehensive study of the problem and, in consultation with industry, certain essential requirements above those contained in the present regulations have been adopted which, it is believed, provide the basis of a safe operating installation. Briefly stated, these requirements for new and existing vessels are:

- (1) An emergency switch, properly located, the operation of which will disconnect all potential to the lifeboat winch;
- (2) A limit switch installed on each davit arm so located as to stop the travel of the arm not less than 12 inches from its final position, so arranged that its opening will disconnect all potential of the circuit in which the switch is connected, and so mounted that it will remain open until the davit arm has moved outboard beyond the tripping position of the switch; and
- (3) The type of master control switch and/or circuit interlocking switch (the latter used primarily where one motor and controller serve two winches) may be single-pole provided its location in the control circuit will not alter the requirements covering the performance of either limit switch.

It should be understood, of course, that arrangements involving deviations from these requirements which can be shown to achieve the same degree of safety will not be excluded from consideration provided they are not less effective.

It has been observed over a period of many years that there is an inclination on the part of some equipment, including fixture, fitting and appliance designers, inadvertent though it may be, to fail to provide electrical spacings complying with permissible minima. It must be admitted that present regulations do not specify the required spacings in many instances and, for such unspecified information in general, reference should be made to the requirements contained in the Underwriters' Laboratories, Inc., Standards for the type of equipment involved. However, since these Standards are primarily developed for, and applicable to, equipment used in land installations, it has been found necessary, in some instances, to modify the spacings specified to provide the apparatus with an equal degree of safety when installed aboard ship.

A closely allied problem is in the nature of the spaces generally provided for the dissipation of heat generated within lighting fixtures. This problem is more severe * * * in the case of waterproof fixtures and is further aggravated by the fact that, while the listing of such fixtures includes the lamp size for which it is rated, no provision is generally made to prevent higher rated lamps of the incandescent type from being installed. Tests made on a number of waterproof fixtures employing rated lamps indicated that temperatures

within the connection box are well in excess of the maximum permissible conductor temperature of the connecting cable entering the box with that cable carrying only the lighting load of the fixture under test. Because excessive temperatures bear a direct relationship to the life of the fixture conductors and connecting cable, this condition involves not only safety but also economic since replacement of both cable and fixture often becomes necessary * * *

A field in which considerable attention has been focused is the static electrical hazard present during and following the administration of anesthetics in the operating room of hospitals, including those aboard ship. Lack of such attention has been the cause of a number of reported fatalities * * * Many of the gases used to produce anesthesia form explosive mixtures with oxygen, and it is, therefore, important to eliminate all possible sources of ignition from these operating rooms. Sources from which static electricity may develop

in these spaces can be divided, in general, into three groups, namely, (1) deck coverings, (2) furniture, and (3) belting, tubing, pads, and similar materials. Since each of these groups has been well treated in a Standard issued by the National Fire Protection Association entitled Recommended Safe Practice for Hospital Operating Rooms, 1949, it would be a misuse of time to discuss these subjects here. However, in connection with deck coverings, it should be borne in mind, that, in addition to its static conductive qualities, the material must also possess the heat and fire insulating qualities required. * * *

Before closing it might be of interest to touch upon the subject of proposed electrical engineering regulations whose development has covered a number of years. * * * A study has been made of the form in which the new regulations would best serve the industry at large, and the present plan, which appears to be the most successful solution, is to incorporate them in a single subchapter of

the Code of Federal Regulations * * * used for no other purpose.

In this industry of shipbuilding and operation, as in many other industries, SAFETY is everybody's business. Everyone is in favor of it, but thinking begins to diverge as soon as people and time enter into its considerations. It has been said that, like leadership, the nebulous things called safety are hard to pin down. Much has been written on good leadership and it is generally agreed that it is necessary and is attained through adherence to certain principles. Safety, on the other hand, meets opposition from various directions with such remarks as: "You can't be 100 percent safe"; "It is a calculated risk"; "Safety shouldn't become the tail which wags the dog". There is not much doubt that safety consists of the application of common sense, and in this term are the ingredients from which stem the practical solutions and ultimate goals to which I referred at the beginning of this discussion. These worth-while goals, when reached, are always worth the effort.

SUGGESTIONS FOR ELECTRICAL SAFETY

A person's reputation may be seriously injured if his lack of foresight results in accidents to himself or others.

Haste causes many accidents. Work deliberately and carefully. Check your work as you go along.

Determine positively whether the circuit is "hot" or "cold" before starting work.

Never touch an energized conductor with hands wet with water, perspiration, or chemicals. Never touch an energized conductor when your shoes are wet, when standing in water, on the ground, or on grounded objects.

When working on energized equipment, make a practice of always having an assistant within sight or calling distance.

All power circuits are dangerous. Do not work high voltages without taking extra precautions such as the use of rubber gloves, rubber mats, and tools with insulated handles.

When working on electric apparatus which is "hot," use only one hand as far as practicable. Keep the other off of all grounded objects.

Do not start to work on a high-voltage circuit until you have made certain that both the oil circuit breaker and the disconnect switches are open. Place warning signs on all switches that might be used to energize the circuit. Bind all line conductors together and connect them to good grounds placed between possible energy sources and the work location.

Never close a switch slowly or hesitatingly; close it quickly and positively.

Cultivate the habit of turning your face away when opening or closing disconnects or air circuit breakers. Do not avert your face and then grope for the switch or circuit breaker. Use extreme care when breaking highly inductive circuits, as dangerously high voltages are likely to result.

Remember that burns from arcs may be very severe. Guard against arcs as well as high voltage.

Avoid the possibility of exposing your eyes to electric arcs, as they are powerful generators of ultraviolet light, including wave lengths which may cause serious and painful injury to the eyes, even with short exposures.

Be careful to keep watch chains, finger rings, wrist watches, flashlights, metallic and metal-bound measuring rulers, and metallic pencils out of contact with energized circuits.

Do not use wires with poor insulation. Make sure that all splices and connections are securely made and properly insulated.

Do not, under any circumstances, open the secondary of a current transformer while under load. Current transformer secondary circuits must be worked with the secondary short-circuited. (Conversely, potential transformer secondary circuits must be worked open-circuited.)

Be careful to avoid the capacitance effects of transformer cases and other high-voltage apparatus. The frame of every high-voltage machine should be grounded. All conducting objects whose potential is not definitely fixed should be solidly grounded when in the vicinity of high-voltage circuits.

All capacitors should be discharged before working on associated circuits. The charge disappears from capacitors slowly, and interruption of the power supply should be followed by short-circuiting each capacitor before the equipment is considered safe.

Make all connections on the load side first, leaving source connections to the last.

Check all connections before energizing the circuit. If smoke, fire, or heat give evidence of improper connections or short circuit, open the source switch before attempting to make corrections.

Do not take chances. If you are not certain of the proper procedure ask your superior for proper instructions.

LIGHT LISTS 1952 EDITIONS

Aids to navigation for the Pacific Coast and Islands will be listed in six volumes as follows commencing with the 1952 editions:

Volume I, Eleventh Coast Guard District, from Mexican border to Point Arguello, Calif., price \$0.40.

Volume II, Twelfth Coast Guard District, from Point Arguello, Calif., to St. George Reef, Calif., price \$0.50.

Volume III, Thirteenth Coast Guard District, from St. George Reef, Calif., to Alaska, price \$0.75.

Volume IV, Seventeenth Coast Guard District, Alaska, price \$0.60.

Volume V, Fourteenth Coast Guard District, Hawaiian and Pacific Islands, price \$0.40.

Volumes I-V (Combined) List of Lights and Other Marine Aids, covering the Pacific Coast and Islands, price \$1.50.

These lists will be published in a new form so that lighted and unlighted aids to navigation will appear together in their geographic order and data concerning each aid will appear on one page.

These new lists will be available for distribution about the middle of May 1952. Sales copies may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., and sales agents listed in Weekly Notice to Mariners (Part I), No. 14, dated April 4, 1952.

SEASICKNESS

by G. M. Saunders, M. D., Medical Director—Socony-Vacuum Oil Co., Inc.

Seasickness is not limited to those who sail the seas. Motion sickness occurs in airplanes, trains and buses as well as on ships. But seasickness affects more people, and is apt to last longer because sea voyages are usually longer than air or land trips.

Roughly, there are three kinds of people with regard to seasickness. There are those rare and fortunate souls who never feel a "qualm"; those who are seasick sometimes, and usually recover within a day or two (the vast majority are in this class); and a very few who are constantly, violently, and maybe dangerously sick from the time the lines are cast off until the ship is tied up again. We are not concerned with the first and last classes of voyagers. The first group are of no concern and the last should not follow the sea. But much can be done to help the large middle group.

Now, let us look for a moment at the cause of seasickness. Most people believe that it comes from the stomach, or from something they ate, or didn't eat; and it is pretty hard to convince someone who is a pale green color, retching and vomiting, that that is not true. However, it is not true.

Seasickness comes from the effect that a ship's motion has upon a delicate little mechanism which is part of the nervous system located in the inner ear. This has to do with balance and equilibrium. When that is disturbed by certain kinds of motion, strong impulses are sent out over the communication wires of the nervous system to the nerves of the stomach and other muscles. Then nausea and vomiting are apt to result, regardless of what is in the stomach.

In some cases people get seasick because they expect to. It is "in the mind"; sometimes all in the mind, but usually only partly. Some people are nauseated and vomit because of a strong emotion—fear, excitement, the sight of a bloody accident. Nearly everyone has known someone like that. So the mind may have much to do with seasickness, but that little balance mechanism in the ear is the most important thing.

Now, what to do about seasickness and how to prevent it. There are about as many sworn remedies as there are old sea dogs—take hot soup, cold soup, solid food, liquid food, and so on and on. None of them works very well, although some seem to, because nearly everyone recovers sooner or later—although it always seems later to the poor guy who has it!

Many different drugs have been tried with varying and usually little success—powders, pills, and injections. During World War II, seasickness became a great problem to our Armed Forces, and researchers really got busy on the problem. There is a group of drugs (called anti-histamines, if you want a four-bit word) which are useful in treating hives and hayfever. One of these is called Dramamine.

Several years ago just before the war, a few people who suffered from hives and also from seasickness happened to take sea trips, and were taking Dramamine, on a trial basis, for their hives. The hives were benefited in some, and surprisingly enough, they noticed that they did not have their usual seasickness. This odd bit of information was lost sight of and not considered of any importance until during the war when researchers started looking around for something to prevent seasickness.

The Medical Research Group of our Navy heard about Dramamine and decided to give it a trial. Several hundred sailors, normally subject to seasickness, were chosen for the test. Half of them were given Dramamine and the others were given a pill which looked the same but which contained only a little starch and sugar. They all thought they were getting the same pills. What happened? During a rough sea voyage, among those who were given the little starch pills there was the usual amount of disability from seasickness but more than 95% of those given Dramamine were not seasick. This has been verified time and again, and now we know we have a drug which will prevent motion sickness in the vast majority of people. Further studies have recently shown that other drugs, similar to Dramamine, are also effective in preventing seasickness.

How should Dramamine be used? Preferably, it should be used as a preventive though it is also useful in treating seasickness.

A word of warning about other effects of Dramamine. Some people who take it get drowsy and doxy and want to spend most of their time in the "sack." Therefore, caution must be used in giving Dramamine to men whose jobs require constant alertness, quick decisions and actions, and upon whom the safety and lives of many others may depend. If Dramamine makes them sleepy, they will have to forego the drug and just "sweat it out."

Courtesy of Marine Safety.



**YOU'LL TIE YOUR BACK
IN A PAINFUL KNOT,
IF YOU LIFT WITH A STOOP
INSTEAD OF A SQUAT!**

CHECK YOUR BUOYANT CUSHIONS

With old man winter in hibernation, pleasure boats will once again dot the lakes and rivers, for summertime is vacation time.

It's a time when thousands of pleasure seekers turn to the water. You may be one of these. If so, have fun; enjoy yourself, but take care to avoid a one-way trip. Know what you are doing and remember, accidents do happen!

It is possible the buoyant cushions carried on board the pleasure craft will be called upon to provide more than a soft, pleasant seat. Perhaps you've never really thought about them. Perhaps you've just accepted them. Well, like any man-made object, their good performance is based on conscientious manufacture by the manufacturer and occasional careful checks by the user.

Briefly, a buoyant cushion is a combination cushion and life preserver, ordinarily made by enclosing kapok with a canvas or leatherette cover. With the exercise of reasonable care, such a cushion will provide sufficient buoyancy to keep a person afloat for several hours. However, there are certain factors which should be understood before they are completely relied upon.

Buoyant cushions used as lifesaving equipment on motorboats of classes A, 1, or 2, not carrying passengers for hire, are required to be manufactured in accordance with certain standards set by the Commandant, U. S. Coast Guard, so as to insure a sufficient buoyancy to keep a person afloat for a reasonable period. The manufacturer submits either a sample buoyant cushion or his specifications as to its manufacture for approval, depending on the type of buoyant cushion being made. If the proposed buoyant cushion is acceptable for use as lifesaving equipment on the above classes of motorboats, the manufacturer is authorized to indicate by an appropriate tag that the particular buoyant cushion meets the safety requirements.

That being the case, you might say, "Well, what's there to worry about?" Simply this. Most manufacturers feel honor bound to produce the safest buoyant cushion possible. A few are unscrupulous. Knowing that only occasionally inspections can be made of their facilities and their product, the few unscrupulous manufacturers may fail to conform to the safety requirements once their product is approved. They may use a higher percentage of reprocessed or inferior

kapok. Some have been known to chop up mattresses and pillows and use covers and all as filled material. A few have cut down on the amount of kapok used. Consequently, some buoyant cushions are practically useless as lifesaving equipment as they either lack initial buoyancy or lose it quickly. The Coast Guard makes a continuous effort to check the manufacture of such items, but it is not always possible to prevent unscrupulous practices before a number of inferior buoyant cushions have been placed on the market.

Understanding this, you can appreciate the need for caution when purchasing buoyant cushions and the need to check your buoyant cushions periodically for buoyancy.

Still, it must be clearly understood, the percentage of inferior, new, buoyant cushions is small. Ordinarily a new buoyant cushion may be relied upon. More often than not, the important thing is to give buoyant cushions proper care when in use.

Some of the things to remember and some of the things which should be done are as follows:

- (1) Test buoyant cushions periodically for buoyancy.
- (2) Don't use them as playthings.
- (3) Replace buoyant cushions when they become lumpy and are no longer soft. (Lumpiness indicates lost buoyancy.)
- (4) Realize buoyant cushions are not waterproof. (Water seeps inside through the seams.)
- (5) Do not sit on wet buoyant cushions. (Buoyancy is lost when kapok is lumped and matted.)
- (6) Hang wet buoyant cushions up to dry.
- (7) Replace gas- or oil-soaked buoyant cushions. (Gas and oil will penetrate the cover and ruin the buoyant effect of kapok.)

There are two general types of Coast Guard approved buoyant cushions, which are termed standard and nonstandard. The standard buoyant cushion is small, 15" x 15" x 2", and must contain at least 20 ounces of kapok. The nonstandard type buoyant cushions vary in size and shape and are larger than the standard type buoyant cushions. They must contain 1 ounce of kapok for each 11 1/4 square inches of top surface covering a 2-inch thickness.

Be sure that your buoyant cushions are *Right* before departing on your Cruise.

HOW EMPTY CAN A CONTAINER BE?

Though entirely empty, a tank, drum, or safety can previously used for highly volatile liquid may be filled to capacity with the vapor from this liquid. Even a container having been used for a liquid not considered highly volatile such as kerosene, fuel oil, etc., may be partially filled with vaporized fuels if exposed to elevated temperatures.

Practically all hazardous vapors are heavier than air. Thus these vapors readily mixed with air in a highly explosive concentration, may remain for years in a container erroneously assumed to be empty.

Beware of the "empty" can or container! Empty drums, awaiting pick-up should be stored safely outdoors, plugs replaced to avoid accidental entrance of sparks or other ignition sources. Never pour contents of a container used for hazardous liquids onto any kind of a fire or hot surface. Never cut, weld or solder a container unless positively known to be entirely free of hazardous liquids, vapor, gases, or residue likely to release such vapors. Never enter a tank used for hazardous materials without thoroughly preparing the tank for entirely safe entry, and then only after having double checked with suitable gas analysis equipment, carefully trained standby personnel in attendance and with all necessary equipment to assure an entirely safe "round trip." Even then any such work should be attempted only with the full knowledge and approval of the personnel or safety department having jurisdiction over such activity.

—Courtesy Sentinel, February 1951.



Courtesy Maritime Reporter.

WHY LEARN THE HARD WAY?

"After we lowered our boat in the water and went to release them, one of the falls hung up. Had to cut the block away. It would not release. Only one hook came unhooked and almost caused the mast of the ship to sink the boat and kill the men. * * * (8/18/42.)

"The lifeboat—she jumped off the forward hook and was hanging by her after fall, and the stem piece and part of the keel was torn out of the lifeboat, and we had to cut her adrift. I would not have lost the No. 1 boat if we had different kind of gear for hooking on her. If she had mousings on the hooks or if she had automatic releasing gear that would not have happened. * * * (10/16/42.)

"No. 5 boat, that was the first boat launched * * * must have been about 16 or 20 men aboard when they lowered the boat. The after tackle came unhooked, and the forward tackle—they didn't know where the release was, I think. The boat was swamped and everybody that was in the boat was swept out of the boat. That's why they lost their lives." (3/18/43.)

"The prisoners lowered No. 6 lifeboat into the water. But they were unable to release this boat. They didn't know anything about how to release it." (8/16/43.)

These are excellent words from the past. The voices of experience rising above the horror of war to guide you. Can you hear them? Can you grasp their message? World War II is over, but ships still sink, and men still scramble for survival. Others have heard their demand. New releasing gear has been designed in answer to their plaints. Do you know what it is; what it does; how it works? You should, for your life may be at stake.

It is now possible to release both boatfalls simultaneously. It is possible to do this safely and quickly. You no longer need fear being hauled to the ocean depths due to time-consuming releasing gear—if you know your releasing gear—that is, what it is; what it does; how it works.

What type of releasing gear incorporates features to correct past deficiencies? It's nothing brand new. Since 1944, all new installations of mechanical disengaging apparatus (releasing gear) on ocean and coastwise vessels have incorporated these safety features. You know it as Rottmer type releasing gear.

How does it work? This gear consists essentially of a pivoted open hook whose foot reposes in an open cup-shaped device. To release the life-

boat, the cup is turned to an open position by means of shafting which is rotated with an operating handle located near the helmsman. Thus, both ends of the lifeboat are released simultaneously from the falls. (See diagrammatic representation.)

Why is it an improvement over wartime releasing gear? Because this arrangement allows both falls to be released simultaneously and quickly regardless of the tension on them. The ability of the Rottmer gear to release both falls simultaneously under tension is advantageous not only in rescue missions but also under abandon-ship conditions where the vessel may have some way on, causing considerable tension in the falls.

Is there any need for caution in using this type of releasing gear? Yes. This ability of the gear to release under tension requires that care be exercised when lowering a lifeboat to insure that the release gear lever is not thrown until the boat is waterborne. In the case of rescue missions under adverse weather conditions the gear may sometimes be tripped safely as the boat is about to become waterborne in order to take advantage of the most favorable sea conditions, but in normal operations the lifeboat should be lowered into the water before the operating handle is thrown to the open position to release the falls. Similarly, the lever should not be touched when cleaning or painting a lifeboat on shipboard.

Are there other safety features? Again, yes. The Rottmer releasing gear operating handle is required to be readily accessible and held in position by a toggle pin which is connected to a permanent part of the lifeboat structure so that air tanks, footings, lifeboat equipment, etc., may be removed without disturbing the handle. In addition, the operating handle is required to be painted red and have, in raised letters, the words: "DANGER — LEVER RELEASES HOOKS." Another safety feature in the Rottmer gear is provided by preventer bars which act not only as an automatic mousing device but also permit the release of the falls when the lifeboat is water-borne in the event the gear is inoperable. This automatic mousing feature is advantageous when lowering a lifeboat, since a premature release of either end of the boat due to a slack in the falls caused by sea conditions cannot occur. This automatic feature is also desirable when retrieving a lifeboat since the link under the block can be thrust into the hook without fear of subsequent unhooking.

How much care is required to maintain this type of releasing gear? Routine maintenance. As is the case with most mechanical contrivances, the Rottmer releasing gear requires periodic lubrication to maintain the gear in a satisfactory operating condition. Grease fittings are provided in the upper and lower guide bearings for this purpose. In addition, other moving parts should be greased or oiled as found necessary, for proper maintenance is closely coupled to safe operation.

Now for the question, "Who needs to know all this?" Do you recall an earlier quotation? "The prisoners lowered No. 6 lifeboat into the water. But they were unable to release this boat. They didn't know anything about how to release it." Who should know? You, you, and YOU. Everyone sailing on board a ship should know how to get a lifeboat away, whether deck officer or engineer, fireman or seaman, steward, or what have you. The other fellow might not know either.

Observations of the Old Mariner

The strakes on a ship are designated by letters, the garboard strake being "A," the next "B," and so on working outboard.

A "bottomry bond" is a lien on a vessel. Usually given when the vessel is in a foreign port, the "bottomry bond" assures the payment of expenses or repairs incurred. It prevents the sale of the vessel.

A Kelvin degree is a unit of temperature on the Kelvin scale. This scale starts at minus 273° C. as its zero point. One degree on the Kelvin scale equals one degree on the centigrade scale.

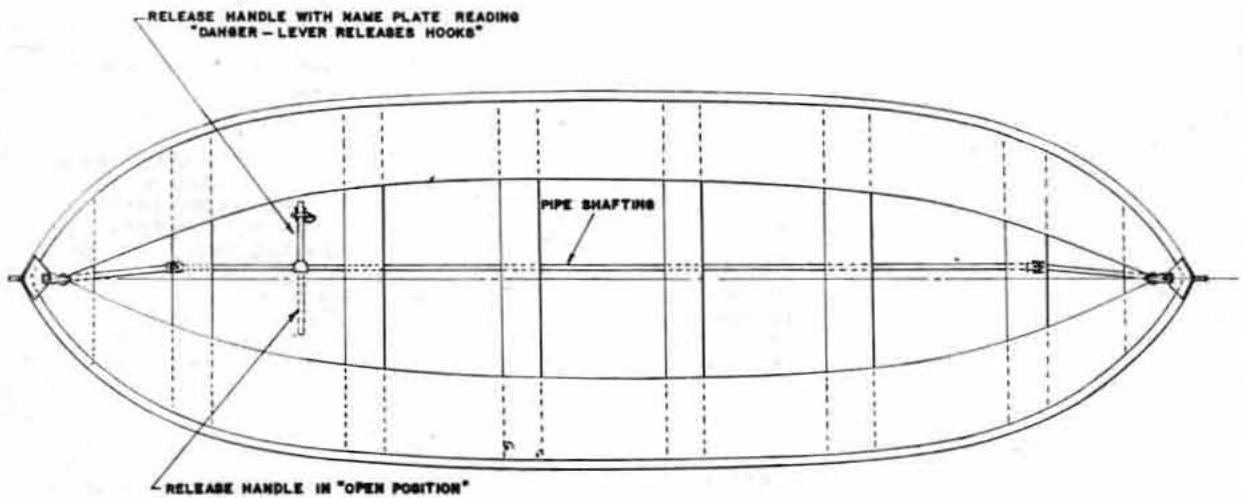
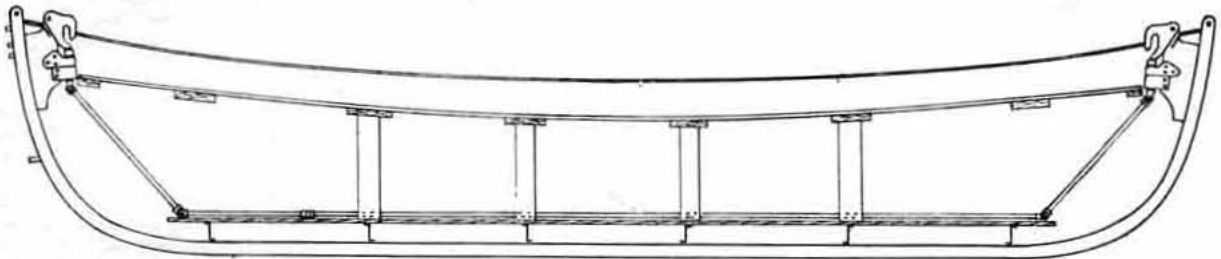
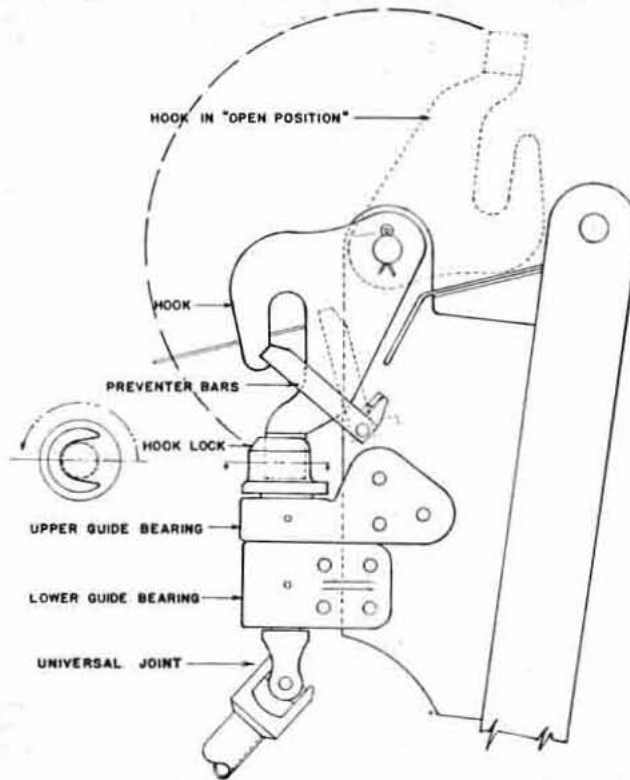
Lateral sensitivity is the property of a range which determines the rapidity with which the two lights of the range open up as a vessel moves laterally from the range line, thus indicating to the mariner that he is off the center line.

A Mississippi River type buoy is a lightweight unlighted buoy of unique design developed for use on rivers and now used in many inland areas.

A shot is a unit of measurement of chain equal to 15 fathoms long.

Proper lubrication of wire rope will prevent the core from becoming dry and the wires from corroding.

LIFEBOAT RELEASING GEAR



NUMBERED AND UNDOCUMENTED VESSELS

The table below gives the cumulative total of undocumented vessels numbered under the provisions of the act of June 7, 1918, as amended (46 U. S. C. 288), in each Coast Guard district by customs ports for the quarter ending March 31, 1952.

Coast Guard District	Customs port	
1 (Boston)	(4) Boston	16,890
	(1) Portland, Maine	11,660
	(2) St. Albans	2,938
	(5) Providence	4,742
		36,230
2 (St. Louis)	(45) St. Louis	15,587
	(12) Pittsburgh	2,521
	(34) Pembina	91
	(35) Minneapolis	5,648
	(40) Indianapolis	3,858
	(42) Louisville	3,909
	(43) Memphis (part)	8,178
	(46) Omaha (part)	506
	(47) Denver	6
		40,304
3 (New York)	(10) New York	49,458
	(6) Bridgeport	9,301
	(11) Philadelphia	20,864
		79,623
5 (Norfolk)	(14) Norfolk	16,656
	(13) Baltimore	23,973
	(15) Wilmington, N. C.	8,833
		49,462
7 (Miami)	(18) Tampa (part)	23,839
	(16) Charleston	1,983
	(17) Savannah	3,411
	(49) San Juan	482
	(51) St. Thomas	96
		29,811
8 (New Orleans)	(20) New Orleans	20,487
	(18) Tampa (part)	779
	(19) Mobile	8,413
	(21) Port Arthur	4,068
	(22) Galveston	10,948
	(23) Laredo	2,152
	(24) El Paso	5
	(43) Memphis (part)	76
		46,928
*9 (Cleveland)	(41) Cleveland	6,506
	(7) Ogdensburg	2,576
	(8) Rochester	4,664
	(9) Buffalo	4,121
	(36) Duluth	2,482
	(37) Milwaukee	3,497
	(38) Detroit	16,303
	(39) Chicago	5,323
		45,472
11 (Long Beach)	(27) Los Angeles	9,154
	(25) San Diego	1,797
	(26) Nogales	109
		11,060
12 (San Francisco)	(28) San Francisco	20,941
		20,941
13 (Seattle)	(30) Seattle	16,065
	(29) Portland, Oregon	8,300
	(33) Great Falls	419
		24,784
14 (Honolulu)	(32) Honolulu	3,731
		3,731
17 (Juneau)	(31) Juneau	7,190
		7,190
Grand total		395,536

*The Ninth Coast Guard District's cumulative total represents a reduction of 48,165 numbered vessels. This decrease in the number of boats is due to the elimination from the records of all outboard motorboats of 16 feet or less in length heretofore required to be numbered but presently exempt from the provisions of the Numbering Act.

Council Activities

(Continued from page 130)

Commandant. Amendments to regulations will also be published in the Appendix in future issues of the "Proceedings," or if space limitations prohibit such action, then appropriate references to where such regulations may be obtained will be published.

JULY PUBLIC HEARING IS ANNOUNCED

The Merchant Marine Council will hold a public hearing on Tuesday, July 22, 1952, commencing at 9:30 a. m., daylight saving time, in Room 2020, Coast Guard Headquarters, Thirteenth and E Streets NW., Washington, D. C., for the purpose of receiving comments, views and data on proposed changes in the navigation and vessel inspection regulations.

The Revised Statutes containing the basic authority for vessel inspection regulations have been amended many times and other laws have been passed which supplement or complement the Revised Statutes, as well as the many conventions and treaties which have been ratified since 1872 which have a direct bearing on the vessel inspection requirements. At the present time it is difficult to determine what requirements are applicable to the various types of vessels in the merchant marine. Since it is necessary to revise many of the vessel inspection regulations in order to implement the 1948 Convention for Safety of Life at Sea, it is proposed to accomplish a revision of the format of the regulations, as well as a revision of the requirements at the same time. It is felt that the division of the general rules and regulations for vessel inspection by classes of waters now leads to confusion and misunderstandings as to what requirements are applicable to a particular type of vessel. The proposed revision in format will separate the requirements according to type of vessel. The requirements for a particular type of vessel will set forth limitations according to the waters navigated, such as oceans, coastwise waters, Great Lakes, bays, sounds, and lakes other than the Great Lakes, and rivers. This method of approach was used in connection with the requirements for tank vessels and has been found to be very satisfactory.

This agenda, due to its size, has been divided into eight volumes; each volume representing one specific subject. The agenda for this public hearing has been mailed to persons and organizations who have expressed a continued interest in the subjects under administrative scrutiny and

have requested that copies be furnished them. Upon request, the agenda will be furnished by the Commandant (CMC), United States Coast Guard, Washington 25, D. C., so long as they are available. After the supply of agenda is exhausted copies will be available for reading purposes only in Room 4104, Coast Guard Headquarters, or at the offices of the various Coast Guard District Commanders.

Can USCG Help?

(Continued from page 132)

with enforcing laws that Congress has passed. In a very real sense, then, it is *you*, and all boat owners and the boat users, who make the laws that govern boating.

Now—in pointing out to you this one fact, that you, that all concerned in any way with boating are the ones who fundamentally control the law—I think that I can summarize for you the conclusions that I came to when I came to think about an extension of the safety program.

First came the obvious platitudes: That safety cannot be built in like a gadget; that safety is not something that you have—it is something you must work for, and when the time comes that you stop working for it—you don't have it; that there are no experts on safety—there are only careful and prudent people who use boats properly and are still alive.

The other realization I came to is this—that, insofar as the Coast Guard's contribution to any safety program is concerned, the Coast Guard is an instrument. While the personnel of the service are ready and willing, and more than willing, both professionally and by personal interest, to assist in every way possible—the ultimate fact is that the Coast Guard is an agency. It has been created by the people to serve the people, and it does not exist independently of *you*—it is your instrument—not just to help you but to be used by you.

As an instrument, it requires use. This means only that there must be cooperation between other organizations interested in safety and the official Government agency. I can think of no better way that our present facilities can be utilized than by the direct and interested cooperation of the Safety Council to make familiar to the general public the nature, the scope, and the manifold functions of the Coast Guard as a preventive influence as well as a rescue service.

We can assure you that in this way the Coast Guard will continue to render the same service to the many more who every year seek pleasure, with safety, afloat.

Your Fact Forum

Q. What is the proper fog signal for a vessel at anchor?

A. A vessel when at anchor shall, at intervals of not more than 1 minute, ring the bell rapidly for about 5 seconds.

Q. When two steam vessels are crossing so as to involve risk of collision which vessel has the right of way?

A. The vessel which has the other on her own starboard side shall keep out of the way of the other.

Q. What is the audible distress signal?

A. A continuous sounding with any fog signal apparatus, or the firing of a gun.

Q. What is the difference between the vertical lettering and the leaning lettering found on a chart?

A. Vertical lettering is used for any factor derived at high water and not affected by the movement of the water. Leaning lettering is used to describe such factors as are parts of the hydrography.

Q. How would you define an estimated position?

A. An estimated position (E. P.) is the best position obtainable short of a fix or a running fix. Usually it is arrived at by applying current to a D. R. position. However, other factors, such as wind and draft, should be considered in establishing an E. P. When a single line of position is obtained, the E. P. at the time of sight must be on that line.

Q. Of what value is the speed and direction triangle?

A. It is the basis for the graphic solution of all relative movement problems.

Q. What is the difference between local civil time and zone time?

A. A ship's local civil time is defined by the longitude at the ship, whereas its zone time is defined by the longitude of the meridian of its time zone.

Q. What is a rhumb line?

A. It is a line on the earth's surface which makes the same angle with all meridians.

Q. How long is a nautical mile?

A. The nautical mile is 6,080 feet, being for practical purposes the length of 1 minute of arc of any great circle, such as a meridian or the equator.

Q. What type allotments are available to seamen?

A. 1. Allotments to grandparents, parents, wife, sister or children.

2. To savings accounts maintained in his own name.

3. For the purchase of savings bonds.

Q. Why is it that the orders "right rudder" and "left rudder" have been adopted for use aboard ship?

A. Because of the possibility of confusion, the use of the words "starboard" and "port" in orders to the helmsman has been prohibited by an Act of Congress. The orders to the helmsman, which must be used instead of those formerly used, are as follows:

(1) "Right rudder," which is an order for the wheel to be turned to the right, so that the rudder and the head of the vessel go to the right.

(2) "Left rudder," which is an order for the wheel to be turned to the left, so that the rudder and the head of the vessel go to the left.

Q. When splicing wire, in which direction should the marlin spike point be?

A. The marlin spike point should always be away from the body.

Q. What is the proper stowage of hatch covers?

A. When not in place, hatch covers should be kept neatly piled away from the hatch coamings but abreast the section where they belong.

Q. What lights should you display on a lifeboat at sea at night?

A. From sunset to sunrise, the boat's lantern should be hoisted as high as possible on the mast or on a spare oar.

Q. What are the general qualifications for certification as able seaman?

A. 1. Must be at least 19 years of age.

2. Pass the prescribed physical examination.

3. Meet the sea service or training requirements required.

4. Satisfactorily pass an examination demonstrating his ability as an able seaman and lifeboatman.

5. Be able to speak and understand the English language as would be required in the rating of able seaman in an emergency aboard ship.

Q. In what direction would your lifeboat be heading if the north star bore broad on your starboard quarter?

A. The lifeboat would be heading about southwest.

Q. Which type of rope is made from the henequin plant?

A. Sisal rope.

LESSONS FROM CASUALTIES

Creating "safety consciousness" is like building character. This is not done by laws, decrees, and commands but by quiet influence, unconscious suggestion, and personal guidance.

PERSONNEL INJURIES (WHAT! AGAIN?)

In the January 1952, issue of "Proceedings of the Merchant Marine Council" there was included a table of serious personnel injuries, comparing various classes of injuries that occurred in fiscal year 1951 to those that occurred in 1950. In the event this issue is not immediately available, the following facts are repeated: There were 344 serious personnel injuries reported in 1951 of which one-third were due to falls. This figure compared favorably with the 320 injuries reported in 1950, one-third due to falls. It was conceded that little could be done to prevent people from falling. In Boy Scout Camp (if memory serves me correctly) swimming class was conducted by the "buddy" system, in which one swimmer is always within reach of his designated companion. Walking class too, on, and from merchant vessels could be conducted in this manner, or does anyone have a more ridiculous suggestion? Don't try to argue, using as a basis for your argument that the deck of a ship presents problems not common to other pedal thoroughfares, because injuries caused by heavy weather, when decks become most treacherous, are listed separately and number only five in each year, leading to the assumption that when decks are obviously not fit for walking, enough care is exercised by the individual to keep him from falling, slipping, tripping, and stumbling, while under favorable conditions caution is neglected.

The end of the fiscal year is the best time to compare casualties, for then improvements, or otherwise, can be noted against previous years' figures. But at this time, picking out reports at random, let us see what trouble the maritime public has gotten into this year. The solutions follow this article.

(1) " * * * it was disclosed * * * that the First Assistant, after doing routine maintenance on a generator, using carbon tetrachloride for cleaning, had been found * * * in the passageway outside his room doubled up with pains, unable to rise, and with labored breathing. * * * It also appears that the Chief Electrician, who had been using carbon tetrachloride, was taken ill, had low temperature and pulse, 'pasty' com-

plexion, and was unable to retain his breakfast."

(2) The Deckhand "was on the forecabin of the tug, working. He took a line to place on the quarter bitt of the two barges on the head of the vessel. He was standing on the gunwale of the barge that had a rail shape along the gunwale. He put the eye of the line on the barge on which he was standing and went to throw the bight of the line on the timber head of the adjacent barge. He stepped back on the rail shape along the gunwale, lost his footing and started to fall forward. He jumped back and fell feet first into the empty coal barge, a distance of approximately 10 feet." The Deckhand received a fracture.

(3) "In the process of shifting a ladder that had been leaning against forward foot of the after stack, and when he was about to place the ladder on the top of the grating (the Coalpasser) stepped back and in doing so stepped into an open scuttle hatch * * * that leads to the car deck, falling 18 feet to the platform below." The Coalpasser sustained three broken ribs and a sprained ankle in addition to cuts and bruises.

(4) The Deck Maintenance "arrived at the dock in a taxicab. He left the cab and started up the ladder carrying a package in his left arm containing six cans of beer. When about 12 to 15 feet from the dock he lost his balance and fell, landing on the dock. * * * The taxicab driver and a friend * * * both stated that the Deck Maintenance had been drinking and was, in their opinion, under the influence of intoxicating liquors." One broken leg.

(5) "Subject, while tying up tow in Calcasieu locks, preparatory to looking through, placed the eye of the 6' manila line over a pile in the tender system with the tow going at dead slow speed, and then attempted to make the free line fast to cavil on the barge but the line became twisted and his foot got caught in the bight, severing the foot at the ankle and throwing him overboard."

(6) "While the ship was in port, the deck engineer was working on the after deck. He crossed over from the port side to the starboard side to No. 4 hatch to repair a winch. As he did so, he turned his right ankle when he stepped over a guard covering a steam

line." Result fractured fifth metatarsal bone.

(7) "The engineer on the 8-12 watch entered the boiler of his own volition, * * * to check on the progress of repairs, and he did not wear safety goggles when he entered. While watching the repairs, a steel chip flew from the tube roller and into his right eye, causing injury to the eye.

(8) "In the afternoon, the radio operator left the vessel for the purpose of shopping. During his shopping tour he purchased a new fishing pole and consumed several beers. Later in the day, he returned to his ship to deposit his newly purchased fishing pole and immediately returned ashore where he devoted his time to drinking beer in a local tavern. He does not remember when he left the tavern or what occurred from the time he left the tavern until he regained consciousness * * * When discovered he was lying on the dock, under the accommodation ladder. From this position it is possible that he fell from the accommodation ladder while attempting to board his vessel. Examination disclosed that he suffered a fractured pelvis, fractured hip, and a fractured femur, accompanied with various bruises."

(9) "Investigation revealed that the Chief Cook, (A), and the Second Cook, (B), were standing at the door between the galley and the pantry engaged in a conversation when (C) approached. After listening for a moment (C) attempted to interject his ideas into the discussion. This was not well received by (B) who advised (C) that he was addressing (A) only. (C) persisted in an indignant manner, whereupon (B) pushed (C) from him with one hand. (C) was caught off balance and fell backward against the pantry sink, his left arm going into the sink which was filled with scalding water used to rinse the mess gear." (Names supplied above are purely fictional.)

(10) "As subject started to descend on port side from the Texas deck to forecabin deck his feet slipped out from under him. He hit on the small of his back * * * and then slid or tumbled to the bottom of the stairway. An hour or so later, after having returned to the Texas deck, the subject again descended to the forecabin deck, this time on the starboard side, and again slipped in a similar

way, again landing on his back and tumbling to the bottom of the stairway." His injury was diagnosed as a bad bruise on the small of the back.

(11) "The Coalpasser and the Third Assistant Engineer had moved two full barrels of oil from aft of midships to a position along the port bulwark, abreast forward side of the after cabins. The barrels had been rolled down the deck, and in the act of upending a barrel to place it in position for stowage, the barrel slipped outboard, both men being caught off balance, both losing their grip on the barrel, causing the barrel to fall downward, striking the Coalpasser on the right foot. He sustained * * * a contusion to the great toe, and the second and third toes were mashed, necessitating amputation of these two toes at the first joint."

(12) "At about 8 a. m. the Deck Maintenance was working on the forward mast, preparing No. 1 boom. After finishing his work on No. 1 boom, he returned to the main deck and had his breakfast. After breakfast, he again went up the foremast to prepare No. 2 boom. As he reached the crosstree, he either missed his hold or slipped, and fell to the mast table and then to the deck. His injuries consisted of a concussion, skull injuries, compound fracture of left elbow, deep lacerations and bruises."

The boys are not really trying anything new, but in many instances the old stand-bys are modified with the result that several novel literal and figurative twists have been developed. There are but very few lines of shipboard endeavors that do not present some form of danger, but the types of accidents which raise the total on the casualty tabulations are those which may be encountered around the house or on the street; the foolish accidents. Again we say, "Watch your step. The leg you break may be your own."

SOLUTIONS TO INJURY PROBLEMS

(to be taken with a grain of salt)

(1) After using carbon "tet" for only 2 hours, you, too, can have that "pasty" complexion.

(2) Placing the eye of the line onto the barge was putting one eye to good use. More than you can say about two other eyes we can think of offhand.

(3) Use a longer ladder.

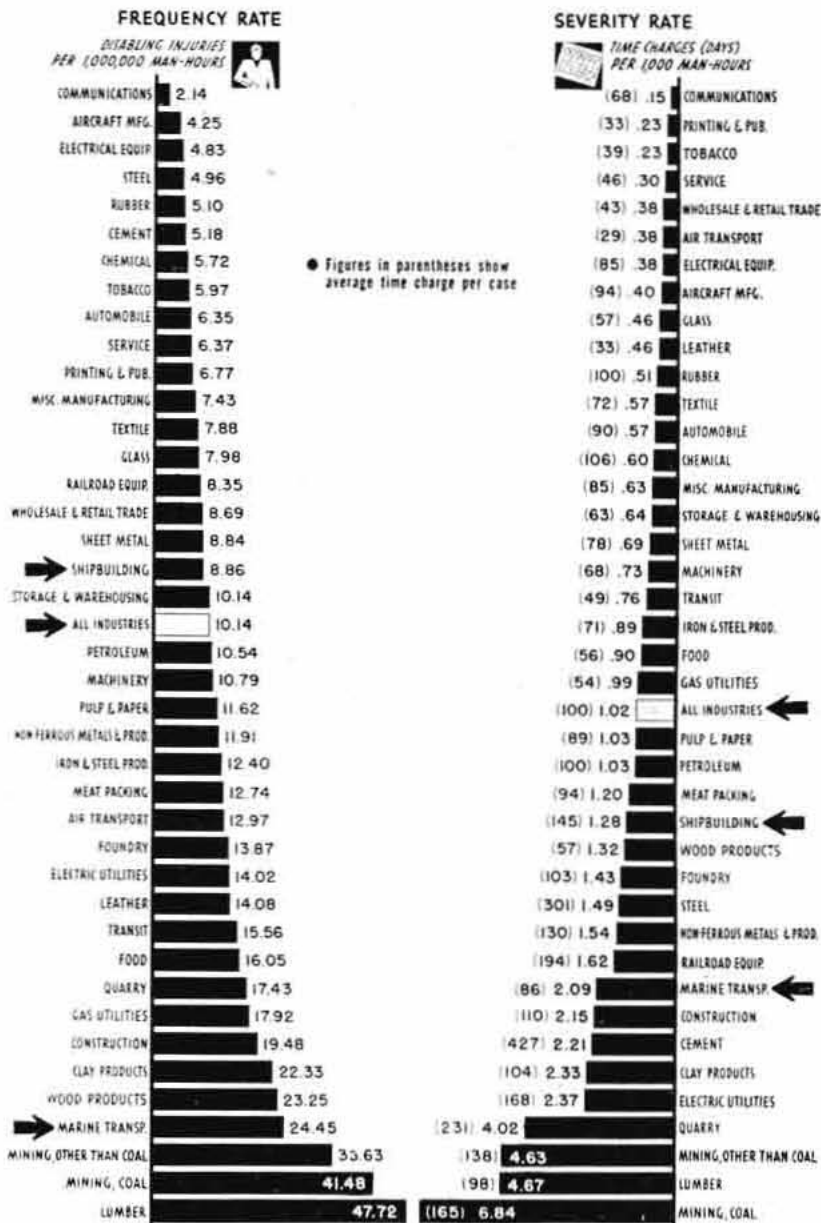
(4) When arriving at the ship with a full cargo to embark, a net designed for the purpose is recommended.

(5) Further serves to illustrate that a man's leg is not a proper fixture on which to secure the bitter end of a line.

(6) It is evident that the guard

ACCIDENT FACTS

1949 INJURY RATES, REPORTERS TO NATIONAL SAFETY COUNCIL



(Courtesy National Safety Council)

satisfactorily protected the steam line from damage for it emerged unscathed. How about a guard for the deck engineer?

(7) The trouble with wearing a perfectly good pair of safety goggles into the boiler is, of course, that they may get broken by steel chips or something.

(8) The effect of fishing poles on radio officers is obvious.

(9) "Too many cooks * * *"

(10) It is apparent that subject exhausted all possibilities towards reaching the forecastle deck from the Texas deck unless there can be found a centerline stairway. One gives you five he wouldn't make it.

(11) "Roll out the barrels" is an act which is supposed to result in a happy ending.

(12) We would like to know what this man had for breakfast before leaping to conclusions.

FURTHER PAINTING OBSERVATIONS

Each month, under the heading entitled "LESSONS FROM CASUALTIES," there appear several case histories of accidents involving vessels and people. The presentation is generally the same in each case and includes a brief discussion of the casualty and either states or implies the error committed and the remedial action to be taken or proper course to be followed to prevent a recurrence of identical casualties. It is unfortunate that such articles cannot be dressed up and colored so as to be found more interesting by the very persons for whom they are intended. It is difficult, if not in poor taste, to thus enliven a tale about how the bos'n lost his leg in the anchor windlass or the fireman was burned about his face and hands. Lessons from casualties must be taken at face value; they are facts; they constitute the experiences of that large group of mariners who have suffered injury. Lessons from casualties are published, as such, that the entire industry may profit from the painful experiences of others.

You probably have guessed it. You are being led up to the subject of "repeaters." Perhaps you, personally, have not been involved in an explosion due to the ignition of inflammable vapors from paint, gasoline, etc., but you have been warned. In this article you will be referred to the April, 1950, issue of the Proceedings of the Merchant Marine Council; some excerpts will be reprinted from the article entitled "Painting Observations." You will be given the facts surrounding a recent flash fire due to the ignition of paint vapors. You will be advised how this casualty happened and why it should not have happened.

From the April, 1950, issue of Proceedings: "In one casualty in a shipyard two men were killed, an arm was blown off a third man, and the fourth man received third-degree burns as a result of an explosion of paint fumes within a tank being prepared for carrying alcohol in bulk. These men were not seamen but employees of a subcontractor working for the shipyard. The tanks of this particular tank ship had been previously dry sandblasted and the men were spray-painting the interior tank surfaces. This particular tank was ventilated by means of ordinary blowers furnished by the shipyard. The evidence does not show whether the blowers were turned off during the time the painters were eating lunch. However, shortly after luncheon several workmen entered the tank and then came back and complained of gases in the

tank. Whereupon two straw bosses went into the tank while two workmen remained outside. Suddenly an explosion occurred which was heard several blocks from the shipyard. The two men in the tank managed to get out unassisted. One came up with his clothes blown or burned completely off, while the other came up with his clothes in shreds and burning. One of the men who was watching had his right arm extended into the manhole and this arm was severed below the elbow. The other man who was watching by the manhole received third-degree burns. First aid was immediately rendered by the ship's crew and the four men were subsequently hospitalized, but the two men who were in the tank later died."

The details of this explosion follow very closely the details of a recent explosion: A dry-cargo Liberty-type vessel was withdrawn from the laid-up fleet and was being reconditioned at an east coast shipyard. A skeleton crew consisting of deck and engineer officers had been assigned, but the repairs were actually being carried out by the shipyard. Four men were assigned to the painting of the deep tanks in No. 1 lower hold and were so engaged at the commencement of the second shift at 1630, at which time, only the night mate and night engineer were on board. Two men were in No. 1 and the other two in No. 2 port deep tanks. Their working gear consisted of paint and spray tools; the lights had been rigged prior to their arrival and were in place at the time. At about 1700, the two men in No. 2 port deep tanks exhausted their supply of paint and both left the tank where they were working to obtain more from the supply tank in No. 1 lower 'tween deck. They heard one of the men who were working in No. 1 port deep tank tell the other that he would finish the painting in that space. At this point "a loud hissing noise, like escaping air" was heard and someone shouted "Fire" as the entire space where these men were, burst into flames. One of the men tried to get out by the forward ladder but found the hatch blocked by hatch covers; he turned to the after ladder and managed to reach the deck but was severely burned on the face and hands. None of the others reached the deck, but

were recovered by a rescue squad. The fire extinguished itself after burning about 2 minutes. The two men who were working in No. 1 port deep tank succumbed that night; the other two who had left No. 2 to replenish their paint supply, lived, but each required long hospitalization.

This casualty was caused by a vapor explosion which started in No. 1 port deep tank. The paint-laden atmosphere was ignited by a portable extension light which was found in the tank after the explosion. From its condition, it was deduced that lacking a vapor globe, the bulb was in some manner broken and the resultant flash supplied the necessary ignition.

Although this article treats of the explosive character of some paint vapors there are other considerations which are important to the painter and concern the toxic qualities of paint—through inhalation of the fumes or by direct contact. As a result of study on the subject, there was drawn up a list of suggestions to overcome these painting hazards which may be encountered on shipboard. This list was published in the aforementioned issue of the Proceedings, and it is noted that strict adherence to the list would probably have prevented subsequent casualties of a similar nature:

1. Adequately ventilate all enclosed compartments in which painting is to be done.
2. Where paint vapors or fumes are known to be explosive, the electrical portable equipment used in painting operations in enclosed compartments should be of the explosion-proof type.
3. Where paint vapors or fumes are known to be explosive or combustible, any type of work within the danger area which may produce flames or sparks should be prohibited.
4. Maintain good housekeeping practices.
5. All packages containing paints, varnishes, lacquers, thinners, or other volatile painting materials should be kept tightly closed when not actually in use. Only the minimum amount of materials should be allowed in the compartment being painted.
6. The exits from the compartment being painted should be clear.
7. Fire-extinguishing equipment should be provided in easily accessible places during paint operations.
8. Persons not actually engaged in painting should be prohibited from the compartment.

**The Human Body
With Proper Care
Will Last a Lifetime**

9. Painters should wear adequate and suitable clothing.
10. No eating, drinking, or storing of food should be allowed in compartments which are being painted.
11. When applying certain paints, the painter should wear a respirator.
12. When a spray gun is used, there is normally a large amount of "flash back" and because of this, the painter should be equipped with an air respirator or hose mask.
13. No smoking should be allowed.

Applying the wisdom of this list to our latest painting casualty it is determined that (1) the compartment was not adequately ventilated; (2) the portable light was not "explosion-proof" and this fact contributed directly to the explosion; (3) an exit from the space was blocked by hatch boards and resulted in a delayed escape for one of the workmen; and (4) although the fire burned itself out quickly, it is doubted that adequate and appropriate fire-extinguishing apparatus was at hand.

In considering the explosive properties of gases and vapors, one fact must be understood: One of the most significant properties of gases is the tendency to expand and to diffuse into space. Gases rapidly distribute themselves to fill all space to which they have access. In diffusing, they penetrate the space which is already occupied by other matter which, for the purpose of this article, may be air. The rate of diffusion varies with each gas. The purpose of raising this point is to clear up a popular misconception that gasoline fumes and many inflammable vapors, being heavier than air, will sink to the bottom of a space and lie there as a layer. The gas, no matter how heavy it is with respect to the weight of air, will immediately start to diffuse and will eventually penetrate all space available, and the proportion of the gas-air ratio from an explosive standpoint, will vary from too rich, at the source of the vapors, to too lean, at the remotest point. Somewhere between these two points lies the explosive range. This argument supports the fact that even though the source of inflammable vapors is in one compartment, an explosion may result through ignition in an adjacent compartment whether the source of ignition be high or low within the compartment.

By keeping in mind these facts, and with the judicious use of common sense, it is hoped that the number of casualties due to vapor explosions may decrease.

MOPE and DOPE



"NOW the old Σδ! * X tells us!"

APPENDIX

Navigation and Vessel Inspection Circular No. 3-52

UNITED STATES COAST GUARD,
WASHINGTON 25, D. C.
March 12, 1952.

Subj: Liberty type vessels, pilothouse port lights, arrangement of.

1. It is essential for safe navigation of Liberty type vessels that the pilothouse port lights be so arranged as to provide maximum vision areas for the persons navigating such vessels. The Liberty type vessels were built during World War II and various arrangements for port lights providing limited vision areas were accepted as part of the blackout requirements. The improvement of the visibility from the pilothouse is considered necessary as a safety measure. This need to increase the visibility from the pilothouse has already been recognized by many shipowners and operators who have submitted plans and requests for changes in port light arrangements.

2. In providing adequate vision areas in the pilothouse for the persons navigating a Liberty type vessel, alterations should not be made which will reduce the efficiency and strength of bulkhead stiffeners. This can be accomplished by inserting port lights in the bulkheads between stiffeners and in the pilothouse doors.

3. In order to have uniformity and not to materially reduce structural strength, additional port light areas in pilothouse on Liberty type vessels should be as follows:

(a) For vessels having only the original three (3) 18" by 13½" windows, an additional four (4) 16" port lights or their equivalent are necessary. They shall be equally spaced on either side of the centerline so as to provide adequate vision and yet will not disturb the existing bulkhead stiffeners.

(b) For vessels whose port light arrangements have been altered from the original plans, no additional port lights are necessary if the total port light area is one thousand (1,000) square inches or more (exclusive of pilothouse door port lights) and so distributed as to provide adequate visibility. If the total port light area is less than one thousand (1,000) square inches, then arrangements to increase such area to one thousand (1,000) square inches or more are necessary.

(c) For vessels with completely fitted out navigating bridges provided with permanent, heated shelters and adequate windows or port lights for visibility at the flying bridge level, no additional port lights need be installed in the pilothouse.

(d) For all vessels, the pilothouse doors which have no port lights or port lights with less than a 9" diameter light, port lights having at least 12" diameter are to be installed. When pilothouse doors have port lights of 9" diameter or larger already installed, no change in the port lights is necessary.

4. There is a sketch on page 147 showing two accepted methods of accomplishing the alterations for additional port lights necessary to improve visibility in the pilothouses of Liberty type vessels.

5. The arrangements described in paragraph 3 are designed to provide improved visibility from the pilothouse without materially affecting the vessel's structural sufficiency. However, other arrangements which will accomplish the desired purpose will be allowed, but prior approval must be obtained from the Officer in Charge, Marine Inspection, in the zone where the changes are to be made.

6. It is essential for safety of life at sea that these alterations be accomplished as soon as possible, and the cooperation of shipowners and operators is requested in order that these changes can be accomplished by January 1, 1953.

By direction of the Commandant.

(S) H. C. SHEPHEARD,
Rear Admiral, U. S. C. G.,
Chief, Office of Merchant
Marine Safety.



Courtesy Maritime Reporter.

Navigation and Vessel Inspection Circular No. 4-52

UNITED STATES COAST GUARD,
WASHINGTON 25, D. C.
March 12, 1952.

Subj: Limit switches and emergency disconnect switches in control circuits of lifeboat winches; list of manufacturers.

1. In Navigation and Vessel Inspection Circular No. 8-51, dated August 22, 1951, regarding limit switches and emergency disconnect switches in control circuits of lifeboat winches, the description regarding new requirements applicable to existing vessels fitted with gravity davits and power operated winches was set forth in detail. In addition, sketches showing various arrangements were enclosed. At the time this circular was distributed various manufacturers were requested to submit samples and drawings of emergency disconnect switches and limit switches suitable for use with lifeboat winches, since it was essential to design or modify electrical equipment to accomplish the intent of the revised regulations in 46 CFR 59.3a (b), 60.21a (b), 76.15a (b), 94.14a (b), and 160.015-3 (k).

2. The following lifeboat winch auxiliary equipment has been approved for use in making the alterations required by the revised regulations, as further explained by Navigation and Vessel Inspection Circular No. 8-51, on certain existing vessels, and on new vessels:

Main Line Emergency Disconnect Switches:

Russell & Stoll Co., Inc., New York, N. Y.

Dwg. No. X-8120, Alt. 9; Cat. No. X-8120-A, 2-pole, 115 volts DC, 12 HP; Cat. No. X-8120-B, 2-pole, 115 volts DC, 12 HP; 240 volts DC, 25 HP; Cat. No. X-8120-C, 3-pole, 220 volts AC, 32 HP; 240 volts AC, 35 HP; 440 volts AC, 65 HP; 600 volts AC, 89 HP.

Piezo Mfg. Corp., New York, N. Y.
Dwg. No. P-953, Alt. D; Type LBSS-AC, 3-pole, 600 volts AC maximum, 30 HP maximum; Type LBSS-DC, 2-pole, 250 volts DC maximum, 25 HP maximum.
Andersen & MacKenzie, New York, N. Y.

Dwg. No. 76, 2-pole, 250 volts maximum; 15 HP, 230 volts DC; 15 HP, 230 volts AC.

Westinghouse Elec. Corp., Pittsburgh, Pa.

Dwg. No. 39-A-5843, Sub. 2, 3-pole, 100 amperes maximum; 20 HP, 120 volts 3-phase; 40 HP, 208/240 volts 3-phase; 50 HP, 380/600 volts, 3-phase; 25 HP, 250 volts DC; S-1632989 (cast iron) and S-1632990 (cast bronze).

Limit Switches, Control Circuit Type, Double-Pole:

General Electric Co., Schenectady, N. Y.

Dwg. No. CR-9440 LS-442-AA, 550 volts, AC or DC, with roller lever.

Piezo Mfg. Corp., New York, N. Y.

Dwg. No. P-981, Alt. C, Type MLS, 600 volts, AC or DC, 5 amperes.

Abelle Elevator Co., Louisville, Ky.

Dwg. No. 4332-2, Alt. 1, Type AL-

30 volts, 10 amperes, 250 volts, AC or DC.

Cutler-Hammer, Inc., Milwaukee, Wis.

Dwg. No. D86-1313, Rev. O, Cat. No. 6884 H1A, 10 amperes, 440 volts AC, and 1.25 amperes, 250 volts DC.

Master switches:

General Electric Co., Schenectady, N. Y.

Dwg. No. CR-585-BIG (when arranged for lifeboat winch service) 440 volts maximum.

Westinghouse Electric Corp., Pittsburgh, Pa.

Dwg. No. 25-B-4672, Sub. 2, Special HDN pushbutton station with starwheel handle (in phenolic enclosure) 440 volts maximum.

Dwg. No. 26-D-5917, Sub. 1, Type HD water and dust tight push-button station star handle (in cast iron enclosure), 440 volts maximum.

Cutler-Hammer, Inc., Milwaukee, Wis.

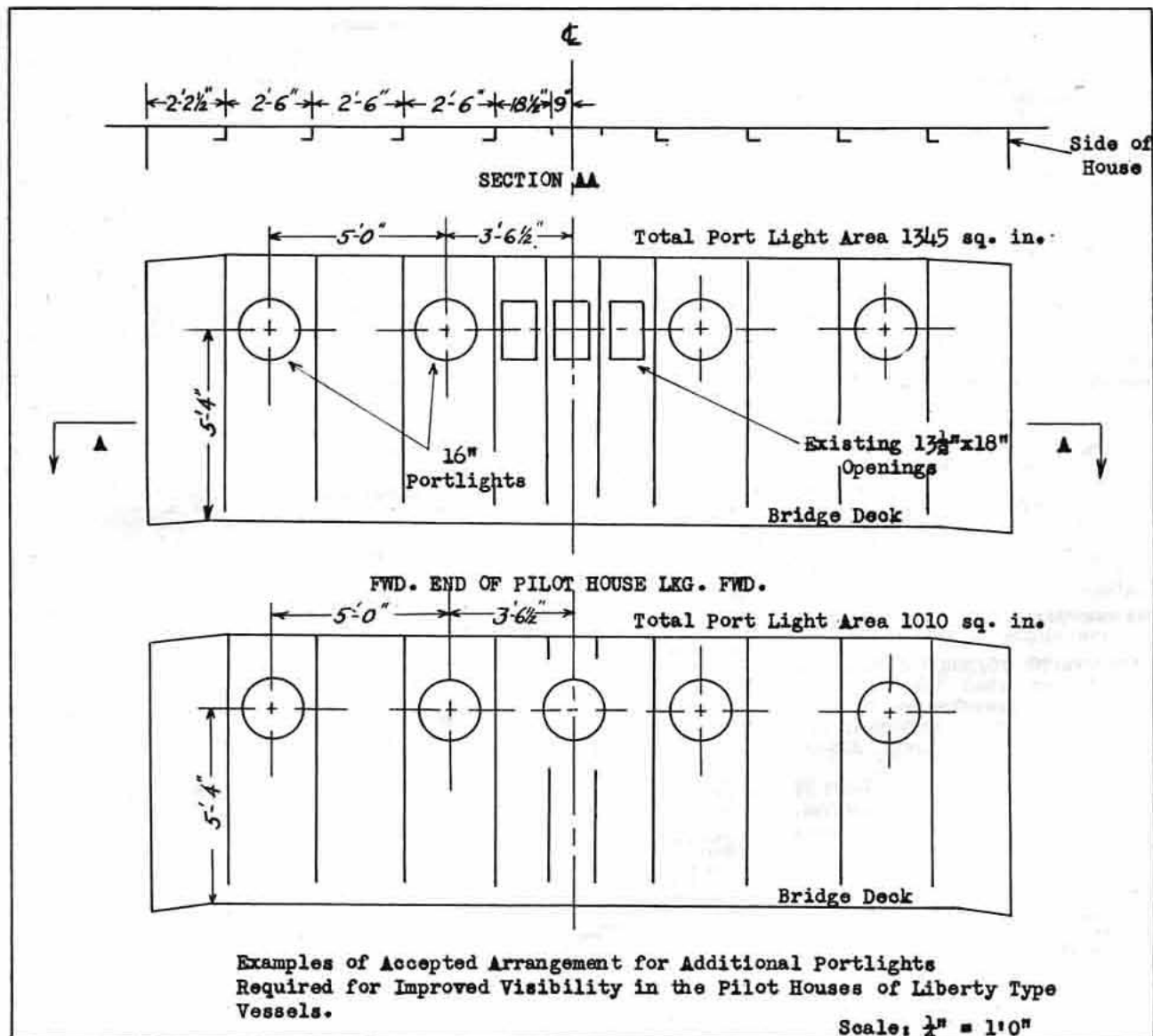
Dwg. No. B086-1273, heavy-duty, spraytight, single element control station, Cat. No. 6981 ED91-44, 440 volts maximum.

C. C. Galbraith & Son Electric Corp., New York, N. Y.

Dwg. No. MS-1, Alt. 0, Master Switch for lifeboat winch controller, 440 volts maximum.

By direction of the Commandant.

(S) H. C. SHEPHEARD,
Rear Admiral, U. S. C. G.,
Chief, Office of Merchant
Marine Safety.



Equipment Approved by the Commandant

ELECTRICAL APPLIANCES

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

[CGFR 52-19]

APPROVAL OF EQUIPMENT

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 in compliance with the authorities cited below, the following approvals of equipment are prescribed and shall be effective for a period of five years from date of publication in the Federal Register unless sooner canceled or suspended by proper authority, except Approval No. 160.008/501/0, which is further limited to the duration of the National Emergency and for six months thereafter:

LIFE PRESERVERS, FIBROUS GLASS, ADULT AND CHILD (JACKET TYPE)

Approval No. 160.005/7/0, Model 52, adult fibrous glass life preserver, U. S. C. G. Specification Subpart 160.005 manufactured by Victory Apparel Manufacturing Corp., 238-50 Passaic Street, Newark 4, N. J.

Approval No. 160.005/8/0, Model 56 child fibrous glass life preserver, U. S. C. G. Specification Subpart 160.005, manufactured by Victory Apparel Manufacturing Corp., 238-50 Passaic Street, Newark 4, N. J.

(R. S. 4405, 4417a, 4426, 4481, 4482, 4488, 4491, 4492, 35 Stat. 428, 49 Stat. 1544, 54 Stat. 164, 166, 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 375, 391a, 404, 474, 475, 481, 489, 490, 396, 367, 526e, 526p, 1333, 50 U. S. C. 1275; 46 CFR 160.005)

Manufacturer and description of equipment	Location apparatus may be used				Date of action
	Passenger and crew quarters and public spaces	Machinery, cargo, and work spaces	Open decks	Pump rooms of tank vessels	
The Adalot Manufacturing Co., Cleveland, Ohio: Ceiling light, w. t., with angle reflector, 1 100-w. lamp max., dwg. No. MERA-0712 rev. B: Cat. Nos. MERA-21712 and MERA-31712.....	x	x	1 x		12/11/51
Cat. Nos. MERA-21712K and MERA-31712K.....	x	x	x		12/11/51
Pendent light, w. t., with dome reflector, 1 100-w. lamp max., dwg. No. MAR-01712 rev. B: Cat. Nos. MAR-21712, MAR-31712 and MAR-41712.....	x	x	1 x		12/11/51
Cat. Nos. MAR-21712K, MAR-31712K and MAR-41712K.....	x	x	x		12/11/51
Pendent light, w. t., with angle reflector, 1 100-w. lamp max., dwg. No. MARA-01712 rev. B: Cat. Nos. MARA-21712, MARA-31712 and MARA-41712.....	x	x	1 x		12/11/51
Cat. Nos. MARA-21712K, MARA-31712K, and MARA-41712K.....	x	x	x		12/11/51
Ceiling light, w. t., with shallow reflector, 1 100-w. lamp max., dwg. No. MED-01712 rev. B: Cat. Nos. MED-21712 and MED-31712.....	x	x	1 x		12/11/51
Cat. Nos. MED-21712K and MED-31712K.....	x	x	x		12/11/51
Ceiling light, w. t., with dome reflector, 1 100-w. lamp max., dwg. No. MER-01712 rev. B: Cat. Nos. MER-21712 and MER-31712.....	x	x	1 x		12/11/51
Cat. Nos. MER-21712K and MER-31712K.....	x	x	x		12/11/51
Ceiling light, w. t., with angle reflector, 1 100-w. lamp max., dwg. No. MERA-01712 rev. B: Cat. Nos. MERA-21712 and MERA-31712.....	x	x	1 x		12/11/51
Cat. Nos. MERA-21712K and MERA-31712K.....	x	x	x		12/11/51
Pendent light, w. t., with shallow reflector, 1 150-w. lamp max., dwg. No. MAD-02714 rev. B: Cat. Nos. MAD-22714, MAD-32714, and MAD-42714.....	x	x	1 x		12/11/51
Cat. Nos. MAD-22714K, MAD-32714K, and MAD-42714K.....	x	x	x		12/11/51
Pendent light, w. t., with dome reflector, 1 150-w. lamp max., dwg. No. MAR-02714 rev. B: Cat. No. MAR-22714, MAR-32714, and MAR-42714.....	x	x	1 x		12/11/51
Cat. No. MAR-22714K, MAR-32714K, and MAR-42714K.....	x	x	x		12/11/51
Ceiling light, w. t., with shallow reflector, 1 150-w. lamp max., dwg. No. MED-02714 rev. B: Cat. Nos. MED-22714, MED-32714, and MED-42714.....	x	x	1 x		12/11/51
Cat. Nos. MED-22714K, MED-32714K, and MED-42714K.....	x	x	x		12/11/51
Ceiling light, w. t., with dome reflector, 1 150-w. lamp max., dwg. No. MER-02714 rev. B: Cat. Nos. MER-22714, MER-32714, and MER-42714.....	x	x	1 x		12/11/51
Cat. Nos. MER-22714K, MER-32714K, and MER-42714K.....	x	x	x		12/11/51
Pendent light, w. t., with shallow reflector, 1 200-w. lamp max., dwg. No. MAD-02716 rev. B: Cat. Nos. MAD-22716, MAD-32716, and MAD-42716.....	x	x	1 x		12/11/51
Cat. Nos. MAD-22716K, MAD-32716K, and MAD-42716K.....	x	x	x		12/11/51
Andersen & MacKenzie, New York, N. Y.: Emergency lifeboat winch disconnect switch, 100 a., 250-v., 2-pole, 15 h. p., 230 v., a. c. or d. c., dwg. No. 76 alt. 0.....	x	x	x		3/6/52
Benson Electric Co., Superior, Wis.: Whistle light (Great Lakes vessels only), w. t., 1 250-w. No. 250 G/FL lamp, dwg. No. 2-3-20C rev. 10/18/51.....	x	x	x		12/7/51
Carpenter Clamping Devices, Los Angeles, Calif.: Cable hanger bracket, type HB661, dwg. No. 3001, alt. 1.....	x	x			3/3/52
Cable hanger, type H660, dwg. No. 3002 alt. 1.....	x	x			3/3/52
Cable clamp, Quicon type, dwg. No. 3004, alt. 1.....	x	x			12/4/51
The Carlisle and Finch Co., Cincinnati, Ohio: Searchlight, incandescent, 19", pedestal base, 1,000-w., 115 v., dwg. No. 2378 alt. 0.....	x	x	x		1/3/52
Control Instrument Co., Brooklyn, N. Y.: Salinity indicator panel, types 55-D-1 and 55-D-2, dwg. No. 23191 alt. 1.....	x	x			12/18/51
Cunningham Manufacturing Co., Seattle, Wash.: Whistle automatic repeat cycle timer, dwg. No. 147-4 alt. 4.....	x	x			12/18/51
Cutler-Hammer, Inc., Milwaukee, Wis.: Master switch for use with lifeboat winches, Cat. No. 6081ED91-44, 230 v., d. c. or 440 v., a. c. max., dwg. No. BM86-1273 rev. A (drain opening and plug or valve to be provided at installation).....	x	x	x		4/10/52
Limit switch for use with lifeboat winches, control circuit type, 2-pole, 250 v., d. c., or 440 v., a. c. max., cat. No. 6884H1A, dwg. No. B86-1313 rev. A (drain opening and plug or valve to be provided at installation).....	x	x			4/10/52
Crouse-Hinds Co., Syracuse, N. Y.: Shore power receptacle and plug, 200 a., 250 v., d. c., 2-pole, 3-wire, dwg. Nos. 5133-D and 7089-D.....	x	x	1 x		3/13/52
Shore power receptacle and plug, 200 a., 440 v. a. c., 3-wire, 4-pole, dwg. Nos. 4883-D and 7088-D.....	x	x	1 x		3/13/52
The Electric Tachometer Corp., Philadelphia, Pa.: Shaft revolution indicator, type D 16 (with illumination), dwg. No. 1565 alt. 0.....	x	x			12/14/51

1 Great Lakes vessels only.

Manufacturer and description of equipment	Location apparatus may be used				Date of action
	Passenger and crew quarters and public spaces	Machinery, cargo, and work spaces	Open decks	Pump rooms of tank vessels	
Federal Enterprises, Inc., Chicago, Ill.: Siren, model AX, explosion-proof, 110-125 v., a. c. or d. c., dwg. No. 820612A alt. 0				x	12/3/51
Horn, model 41X, explosion-proof, 250 v., d. c., max., dwg. No. 8242D8A alt. 0				x	2/29/52
C. C. Galbraith & Son Electric Corp., New York, N. Y.: Master switch for use with lifeboat winches, splashproof, 440 v., max. (drain opening and plug or valve to be provided at installation), dwg. No. MS-1 alt. 0	x	x	x		12/27/51
Henschel Corp., Amesbury, Mass.: Shaft speed transmitter, with 8 figure counter, types I and II, dwg. No. 14-100 alt. 2	x	x			2/14/52
Shaft speed indicator, dwg. No. 14-101 alt. 1	x	x			1/31/52
Running light panel, automatic, 5-circuit-115 v., a. c., or d. c., dwg. No. 40-086 alt. 3	x	x			3/25/52
Shaft speed indicator, type B-bulkhead mounted, red illumination, type P panel mounted, without illumination, dwg. No. 14-102 alt. 1	x	x			2/7/52
Running light panel, semi-automatic, 115 v., a. c., types I, II, III, and IV, dwg. No. 40-042-6 alt. 1	x	x			3/6/52
Rudder angle indicator, 120 v., a. c., Type I with dial illumination, type II without dial illumination, dwg. No. 10-1052-5 alt. 1	x	x			3/25/52
Rudder angle transmitter, 115 v., a. c., dwg. No. 10-1090-1 alt. 1	x	x			3/25/52
Hose-McCann Telephone Co., Brooklyn, N. Y.: Connection box, 11-circuit, w. t., dwg. No. 24 alt. 0		x			3/7/52
Lovell-Dressel Co., Inc., Arlington, N. J.: Pump room bulkhead fixture, w. t., Cat. No. 4150, 1 100-w. lamp max., Cat. No. 4151, 1 150-w. lamp max., dwg. No. M-5182 alt. 3	x	x	x		1/10/52
Receptacle, n. w. t., 3-wire grounding type, 15 a., 125 v. Cat. No. 1685 single receptacle, Cat. No. 1687 double receptacle, dwg. No. 6E alt. 0	x				1/10/52
Blinker light, 6 TS-11 lamps, Cat. No. 950 MC; and anchor light, 1 60-w. lamp max., Cat. No. 970; dwg. No. M-5376 alt. 5	x	x	x		4/3/52
Ceiling light, w. t., 1 100-w. lamp max., Cat. No. 848, dwg. No. M-5455 alt. 1	x	x			2/1/52
Receptacle, 3-wire, 10 a., 125 v., Cat. No. 1770, dwg. No. M-5300 alt. 1	x	x	x		2/25/52
Pushbutton, desk and table mounting, n. w. t., 250 v., a. c., max., dwg. No. M-5476 alt. 1, Cat. Nos. 881 and 882	x				3/7/52
Receptacle, plug, w. t., 2-wire, 3-pole, grounded, Cat. No. 3800, 10 a., 250 v., 20 a., 125 v., dwg. No. M-5460 alt. 3	x	x	x		3/18/52
Receptacle, double, w. t., 2-pole, 3-wire, grounded, Cat. No. 3836, 10 a., 250 v., 20 a., 125 v., dwg. No. M-5469 alt. 1	x	x	x		3/18/52
Switch and single receptacle, w. t., 2-pole, 3-wire grounded receptacle; Cat. No. 3805 with 1-pole switch; Cat. No. 3806 with 2 pole switch; 10 a., 250 v., max.; dwg. No. M-5470 alt. 1	x	x	x		3/18/52
Switch and double receptacle, w. t., 2-pole, 3-wire, grounded receptacle, Cat. No. 3808 with 1-pole switch, Cat. No. 3809 with 2-pole switch, 10 a., 250 v., max., dwg. No. M-5471 alt. 1	x	x	x		3/18/52
Switch and single receptacle, w. t., angle type, 2-pole, 3-wire, grounded, Cat. No. 3855 with 1-pole switch, Cat. No. 3856 with 2-pole switch, 10 a., 250 v., max., dwg. No. M-5472 alt. 1	x	x	x		3/18/52
Switch and double receptacle, w. t., angle type, 2-pole, 3-wire grounded, Cat. No. 3858 with 1-pole switch, Cat. No. 3859 with 2-pole switch, 10 a., 250 v., max., dwg. No. M-5473 alt. 1	x	x	x		3/18/52
Receptacle, single, w. t., angle type, 2-pole, 3-wire grounded, Cat. No. 3888, 10 a., 250 v., 20 a., 125 v., dwg. No. M-5465 alt. 1	x	x	x		3/18/52
Receptacle, double, w. t., angle type, 2-pole, 3-wire, grounded, Cat. No. 3839, 10 a., 250 v., 20 a., 125 v., dwg. No. M-5466 alt. 1	x	x	x		3/18/52
Receptacle, single, w. t., 2-pole, 3-wire, grounded, Cat. No. 3814, 10 a., 250 v., 20 a., 125 v., dwg. No. M-5468 alt. 1	x	x	x		3/18/52
Marine Electric Corp., Brooklyn, N. Y.: Engine order telegraph wrong direction indicator panel, dwg. No. W. D. A. 100 alt. 2	x	x			12/3/51
Wheelhouse-engine room communicator, dwg. Nos. W. B. C. 100, 101, and 102 alt. 0	x	x			2/12/51
E. W. Mink & Associates, Inc., Dayton, Ohio: Mirror light, n. w. t., 2 40-w. lamps max., fixture No. B-5667, dwg. No. 51D757 rev. 0	x				12/4/51
Mirror light, n. w. t., 2 40-w. lamps max., fixture No. B-5650, dwg. No. 51D535 rev. B	x				12/4/51
Ceiling light, n. w. t., 2 60-w. lamps max., fixture No. C-10423, dwg. No. 563-A rev. 6	x				12/18/51
Ceiling light, n. w. t., 2 60-w. lamps max., fixture No. C-10424, dwg. No. 564-A rev. 9	x				12/18/51
Ceiling light, n. w. t., 2 60-w. lamps max., fixture No. C-10444, dwg. No. 648, rev. 8	x				12/18/51
Cove light, n. w. t., 2 48" fluorescent lamps per section, fixture No. B-5660, dwg. Nos. 51G588 rev. A and 51D667 rev. B	x				12/28/51

BUOYANT CUSHIONS, KAPOK, STANDARD

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

Approval No. 160.007/115/0, Standard kapok buoyant cushion, U. S. C. G. Specification Subpart 160.007, manufactured by Restwell Mattress Co., 234 West Kellogg Boulevard, St. Paul 2, Minn.

Approval No. 160.007/116/0, Standard kapok buoyant cushion, U. S. C. G. Specification Subpart 160.007, manufactured by The American Pad & Textile Co., Greenfield, Ohio, for Wood-Stream Outdoor Products, 200 East Ohio Street, Pittsburgh 12, Pa.

(R. S. 4405, 4491, 54 Stat. 164, 166, as amended; 46 U. S. C. 375, 489, 526e, 526p; 46 CFR 25.4-1, 160.007)

BUOYANT CUSHIONS, NON-STANDARD

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

Approval No. 160.008/501/0, 15" x 15" x 2" rectangular buoyant cushion, 24-oz. Typha (processed cattail floss), dwg. dated January 21, 1952, manufactured by The Safeguard Corp., Box 66, Station B, Cincinnati, Ohio.

NOTE: Approved for the duration of the National Emergency and for six months thereafter or 5 years, whichever occurs first.

Approval No. 160.008/506/0, 14" x 18" x 2" rectangular buoyant cushion, 22-oz. kapok, American Pad & Textile Co. dwg. No. B-66 dated January 23, 1942, revised March 6, 1946, manufactured by The American Pad & Textile Co., Greenfield, Ohio, for Wood-Stream Outdoor Products, 200 East Ohio Street, Pittsburgh 12, Pa.

Approval No. 160.008/507/0, 15" x 16" x 2" rectangular buoyant cushion, (R. S. 4405, 4491, 54 Stat. 164, 166, as amended; 46 U. S. C. 375, 489, 526e, 526p; 46 CFR 25.4-1, 160.008)

BUOYS, LIFE RING, CORK OR Balsa WOOD

Approval No. 160.009/39/0, 30-inch balsa wood ring life buoy, dwg. No. 501, dated December 1, 1951, manufactured by Kamor Manufacturing Corp., 426 Great East Neck Road, West Babylon, N. Y.

(R. S. 4405, 4417a, 4426, 4482, 4488, 4491, sec. 11, 35 Stat. 428, 49 Stat. 1544, 54 Stat. 164, 166, 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 375, 391a, 395, 404, 475, 481, 489, 526e, 526p, 1333, 50 U. S. C. 1275; 46 CFR 25.4-1, 33.01-5, 33.40-1, 59.56, 60.49, 75.53, 94.53, 113.46, 160.009)

Manufacturer and description of equipment	Location apparatus may be used				Date of action
	Passenger and crew quarters and public spaces	Machinery, cargo, and work spaces	Open decks	Pump rooms of tank vessels	
E. W. Mink & Associates, Inc., Dayton, Ohio—Con. Wall fixture No. B-5677, n. w. t., 4 60-w. and 1 40-w. luminaire lamps, dwg. No. 320841 rev. 0	X				3/26/52
Marine Moisture Control Co., Long Island City, N. Y.: Gear case dehydrator, condensing type, Model 8, dwg. No. A-1035 rev. 12/4/51	X	X			2/11/52
Murlin Manufacturing Co., Philadelphia, Pa.: Galley range light, w. t., 3 60-w. lamps max., dwg. No. 1523 alt. 0	X	X			12/5/51
Berth lights, n. w. t., 1 40-w. lamps max., dwg. No. 1513/1513A alt. 0	X				12/20/51
Galley range light, w. t., 9 60-w. lamps max., dwg. No. 1529 alt. 0	X	X			1/18/52
Ceiling light, w. t., 2 60-w. lamps max., dwg. No. 586-2 alt. 1	X	X			1/18/52
Ceiling light, type 8, n. w. t., 1 40-w. lamps max., dwg. No. 1530 alt. 0	X				2/14/52
Strip light, type 14, n. w. t., 8 60-w. lamps max., dwg. No. 1531 alt. 0	X				2/14/52
Galley range light, w. t., 4 60-w. lamps max., dwg. No. 1524 alt. 0	X	X			2/25/52
Piezo Manufacturing Co., New York, N. Y.: Limit switch for use with lifeboat winches, control circuit type, 2-pole, type MLS, 600 v., max., dwg. No. P-981 alt. C (drain opening and plug or valve to be added at installation)	X	X	X		2/13/52
Pilot Marine Corp., New York, N. Y.: Salinity indicator panel, 7-cell, type 7C51, dwg. No. PM-3701, rev. 0	X	X			1/9/52
Raytheon Manufacturing Co., Waltham, Mass.: Radar-range electronic cooking oven, Model 1150, dwg. No. C-84-924-00-6 rev. 2	X	X			2/14/52
Raymond Rosen Engineering Products, Inc., Philadelphia, Pa.: Running light indicator panel, 5-circuit, 115 v., a. c., dwg. No. 6-0531 alt. D	X				12/26/51
Russell & Stoll Co., Inc., New York, N. Y.: Receptacle plug, 2-wire, 10 a., 125 v., Cat. No. 452, dwg. No. B-8527 alt. 0	X	X	X		12/12/51
Receptacle plug, 3-wire, 10 a., 125 v., Cat. No. 1453, dwg. No. B-8528 alt. 0	X	X	X		12/12/51
Emergency lifeboat winch disconnect switch; Cat. No. X-8120-A, 2-pole, 115 v., d. c., 12 h. p.; Cat. No. X-8120-B, 2-pole, 115 v., d. c., 12 h. p., 240 v., d. c., 25 h. p.; Cat. No. X-8120-C, 3-pole, 220 v., a. c., 32 h. p., 240 v., d. c., 35 h. p., 440 v., a. c., 65 h. p., 600 v., a. c., 89 h. p.; dwg. No. X-8120 alt. 9 (drain opening and plug or valve to be added at installation)	X	X	X		2/20/52
The Simes Company, College Point, N. Y.: Table lamp, type G, n. w. t., dwg. No. 44408 alt. 1	X				12/7/51
Floor lamp, type I, n. w. t., dwg. No. 44409 alt. 1	X				12/7/51
Desk light, type A, n. w. t., 1 100-w. lamp max., dwg. No. 44406 chg. 2	X				12/14/51
Desk light, type B, n. w. t., 1 100-w. lamp max., dwg. No. 44407 chg. 2	X				12/14/51
Table lamp, n. w. t., dwg. No. 44408 rev. 7/8/51	X				12/14/51
Sperry Gyroscope Company, Great Neck, Long Island, N. Y.: Gyro-pilot with hydraulic power unit, typical installation, dwg. No. 67323 rev. 0; steering stand head No. 608715, stand No. 608716-1, wheel No. 670950 and bracket No. 672637; hydraulic power unit No. 311983; motors Nos. 674094, 674093, 674095, and 674092; controllers Nos. 715088, 715087, 670971, and 715541	X	X			4/7/52
Welin Davit & Boat, Division of Continental Copper & Steel Industries, Inc., Perth Amboy, N. J.: Limit switch for use with lifeboat winches, control circuit type, Type AL-30V, 2-pole, 550 v., max., Abell Elevator Co., dwg. No. 4332-2 rev. 2 (drain opening and plug or valve to be provided at installation)	X	X	X		3/10/52
Emergency lifeboat winch disconnect switch, 100 a.; type A, 2-pole, 12½ h. p., 125 v., d. c., 25 h. p., 250 v. d. c.; type B, 3-pole, 20 h. p., 120 v. 3-p. h., 40 h. p., 208/240 v., 3-p. h., 50 h. p., 380/600 v., 3-p. h.; dwg. No. 3243-22 dated 2/26/52	X	X	X		3/7/52
Westinghouse Electric Corp., Pittsburgh, Pa.: Emergency lifeboat winch disconnect switch, 100 a., 600 v., a. c., or 250 v., d. c., 3-pole; 20 h. p., 120 v., 3-p. h.; 40 h. p., 208/240 v., 3-p. h.; 50 h. p., 380/600 v., 3-p. h.; 25 h. p., 250 v., d. c.; S-1632089—cast iron enclosure; S-1632090—cast bronze enclosure; dwg. No. 39-A-5843 sub. 2	X	X	X		3/6/52
Master switch for use with lifeboat winches, Type HD with star wheel handle, 2-unit type, dwg. No. 26-D-5917 sub. 1	X	X	X		2/20/52
Wheeler Reflector Co., Boston, Mass.: Floodlight, w. t., 1 200-w. lamp max., Cat. No. S-2512—porcelain steel housing, No. S-2512-B—brass housing, dwg. No. SK-35951 alt. 3	X	X	X		1/11/52

WINCHES, LIFEBOAT

Approval No. 160.015/27/1, Type B17N lifeboat winch. Approval is limited to mechanical components and for a maximum working load of 17,200 pounds pull at the drums (8,600 pounds per fall), identified by general arrangement dwg. No. 2114-N dated December 1, 1941, and revised August 29, 1951, manufactured by Welin Davit and Boat Division of Continental Copper & Steel Industries, Inc., Perth Amboy, N. J. (Supersedes Approval No. 160.015/27/0, published in the Federal Register, July 31, 1947.)

(R. S. 4405, 4417a, 4426, 4488, 4491, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 375, 391a, 404, 431, 489, 1333, 50 U. S. C. 1275; 46 CFR 33.10-5, 59.3a, 60.21, 76.15a, 94.14a, 160.015)

DAVITS, LIFEBOATS

Approval No. 160.032/121/0, aluminum gravity davit, Type G165A, approved for maximum working load of 33,000 pounds per set (16,500 pounds per arm), using 2 part falls, identified by arrangement dwg. No. 3324-6, revised May 11, 1951, manufactured by Welin Davit and Boat Division of Continental Copper & Steel Industries, Inc., Perth Amboy, N. J.

(R. S. 4405, 4417a, 4426, 4488, 4491, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 375, 391a, 404, 481, 489, 1333, 50 U. S. C. 1275; 46 CFR 160.021)

LIFEBOATS

Approval No. 160.035/271/0, 22.0' x 6.75' x 2.92' steel, oar-propelled lifeboat, 25-person capacity, identified by construction and arrangement dwg. No. 22-1B dated October 16, 1950, and revised January 24, 1952, manufactured by Marine Safety Equipment Corp., Point Pleasant, N. J.

Approval No. 160.035/284/0, 16.0' x 5.5' x 2.38' aluminum, oar-propelled lifeboat, 12-person capacity, identified by construction and arrangement dwg. No. 16-3, dated October 17, 1951, and revised February 4, 1952, manufactured by Marine Safety Equipment Corp., Point Pleasant, N. J.

(R. S. 4405, 4417a, 4426, 4481, 4488, 4491, 4492, 35 Stat. 428, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 375, 391a, 396, 404, 474, 481, 489, 490, 1333, 50 U. S. C. 1275; 46 CFR 33.01-5, 59.13, 76.16, 94.15, 113.10, 160.035)

LINE-THROWING APPLIANCE, IMPULSE-PROJECTED ROCKET TYPE

Approval No. 160.040/1/1, Kilgore Towline Rocket Appliance Model GR 52 CK, impulse-projected rocket type line-throwing appliance, rocket assembly dwg. No. KM 1901 dated November 28, 1949, Rev. No. 3 dated September 15, 1950, buoyant rocket

It's good to be lucky—Better to be safe

assembly dwg. No. KM 1906 dated April 10, 1950, Rev. No. 1 dated September 15, 1950, Cartridge assembly dwg. No. FXC-201 dated August 17, 1951, revision No. 1 dated February 14, 1952, appliance assembly dwg. No. KM 1911 dated November 28, 1949, Rev. No. 1 dated March 10, 1950, manufactured by Kilgore, Inc., International Flare-Signal Division, Westerville, Ohio. (Supersedes Approval No. 160.040/1/0 published in the Federal Register dated November 11, 1950.)

(R. S. 4405, 4417a, 4426, 4481, 4488, 4491, sec. 11, 35 Stat. 428, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 375, 391a, 396, 404, 474, 475, 481, 489, 1333, 50 U. S. C. 1275; 46 CFR 160.040)

LIGHTS (WATER): ELECTRIC, FLOATING, AUTOMATIC

Approval No. 161.001/6/0, automatic floating electric water light (with bracket for mounting), identified by dwg. No. 607, Alt. 1, manufactured by Pomill Manufacturing Corp., 17 Battery Place, New York, N. Y.

(R. S. 4405, 4417a, 4426, 4488, 4491, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 404, 481, 1333, 50 U. S. C. 1275; 46 CFR 161.001)

Dated: March 27, 1952.

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

[F. R. Doc. 52-3800; Filed, Apr. 2, 1952;
8:51 a. m., 17 F. R. 2898-4/3/52.]

AFFIDAVITS

The following affidavits were accepted during the period from March 15 to April 15, 1952:

Gulf Foundry and Machine Co.,
Mobile, Ala., Flanges, valves, and castings.

Penn Brass & Copper Co., Erie,
Penn.; Tubing (nonferrous).

FUSIBLE PLUGS

The Marine Engineering Regulations and Material Specifications require that manufacturers submit samples from each heat of fusible plugs to the Commandant for test prior to plugs manufactured from the heat being used on vessels subject to inspection by the Coast Guard. A list of approved heats which have been tested and found acceptable during the period from March 15 to April 15, 1952, is as follows:

H. Greenberg's Sons, 765 Folsom St.,
San Francisco, Calif.; Heat Nos. 165 and 166.

H. B. Sherman Manufacturing Co.,
Battle Creek, Mich.; Heat Nos. 764 and 765.

Merchant Marine Personnel Statistics

MERCHANT MARINE OFFICER LICENSES ISSUED

February 1952

DECK

Grade	Original	Renewal
Master:		
Ocean	45	142
Coastwise	3	16
Great Lakes	14	52
Bays, sounds and lakes	2	51
Rivers	10	37
Radio officer licenses issued	75	
Chief mate:		
Ocean	46	43
Coastwise	1	3
Mate:		
Great Lakes		
Bays, sounds and lakes	3	5
Rivers	7	9
Second mate:		
Ocean	47	53
Coastwise		
Third mate:		
Ocean	45	48
Coastwise		
Pilots:		
Great Lakes	110	128
Bays, sounds and lakes	60	156
Rivers	59	66
Master: Uninspected vessels	1	3
Mate: Uninspected vessels		
Total	528	812
Grand total		1,340

ENGINEER

Grade	Original	Renewal
STEAM		
Chief engineer:		
Unlimited	30	204
Limited	33	178
First assistant engineer:		
Unlimited	52	65
Limited	32	34
Second assistant engineer:		
Unlimited	72	105
Limited	7	20
Third assistant engineer:		
Unlimited	117	88
Limited	19	5
MOTOR		
Chief engineer:		
Unlimited	2	45
Limited	14	82
First assistant engineer:		
Unlimited	5	13
Limited	2	2
Second assistant engineer:		
Unlimited	6	12
Limited	2	2
Third assistant engineer:		
Unlimited	56	84
Limited		
Chief engineer: Uninspected vessels	4	3
Assistant engineer: Uninspected vessels	3	
Total	456	942
Grand total		1,398

INVESTIGATING UNITS

Coast Guard Merchant Marine Investigating Units and Merchant Marine Details investigated a total of

ORIGINAL SEAMEN'S DOCUMENTS ISSUED

February 1952

Type of document	Atlantic coast	Gulf coast	Pacific coast	Great Lakes and rivers	Total
Staff officer	53	8	32	3	96
Continuous discharge book		6			6
Merchant mariner's documents	2,184	686	1,010	429	4,309
AB any waters, unlimited	82	30	71	10	193
AB any waters, 12 months	60	21	69	14	164
AB Great Lakes, 18 months	2	3		5	10
AB tugs and towboats, any waters		1	1		2
AB bays and sounds					
AB seagoing barges					
Lifeboatman	83	9	124	9	225
Q. M. E. D.	208	42	76	70	486
Radio operators	5		4	1	10
Certificate of service	2,050	668	1,001	345	4,064
Tankerman	4	22	3	72	101

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

NOTE.—The last 11 categories indicate number of endorsements made on United States merchant mariner's documents.

WAIVER OF MANNING REQUIREMENTS

Waivers	Atlantic coast	Gulf coast	Pacific coast	Great Lakes	Total
Deck officers substituted for higher ratings	13	2	1		16
Engineer officers substituted for higher ratings	57	3	5		65
O. S. for AB	467	95	104		666
Wiper or compassers for Q. M. E. D.	280	39	100		419
Total waivers	817	139	210		1,166
Number of vessels	386	96	109		591

NOTE.—In addition, individual waivers were granted to permit the employment of 70 able seamen holding certificates for "any waters—12 months" in excess of the 25 percent authorized by statute.

731 cases during the month of February 1952. From this number, hearings before examiners resulted involving 18 officers and 106 unlicensed men. In the case of officers, no license was revoked, 8 were suspended without probation, 6 were suspended with probation granted, 2 licenses were voluntarily surrendered, 1 was dismissed after hearing, and 1 hearing was closed with an admonition. Of the unlicensed personnel 18 certificates were revoked, 22 were suspended without probation, 32 were suspended with probation granted, 13 were voluntarily surrendered, 4 hearings were closed with admonitions and 14 cases were dismissed after hearing.

FROM **U.S.P.S.** TEN COMMANDMENTS



YOU MUST: Never overload your boat.
At all times be especially careful
about nonswimmers and children.

YOU MUST: Carry life preservers for
every person aboard. Be sure they
are worn on deck in rough weather.



YOU MUST: Always be courteous, careful
and competent. Watch your wash, slow
down to 4 mph in harbors. Avoid swim areas.

KEEP AWAY: from large vessels. They are
not as maneuverable as smaller craft.



KEEP AWAY from sailboats - smaller ones
may be swamped by wash from a power boat.

-- and larger sailing yachts
do not have the maneuverability
of a power boat.



YOU MUST: Never make a turn at high
speed. Small craft can easily be and
have been swamped by their own wash.

**General Safety Committee -
UNITED STATES POWER SQUADRONS**