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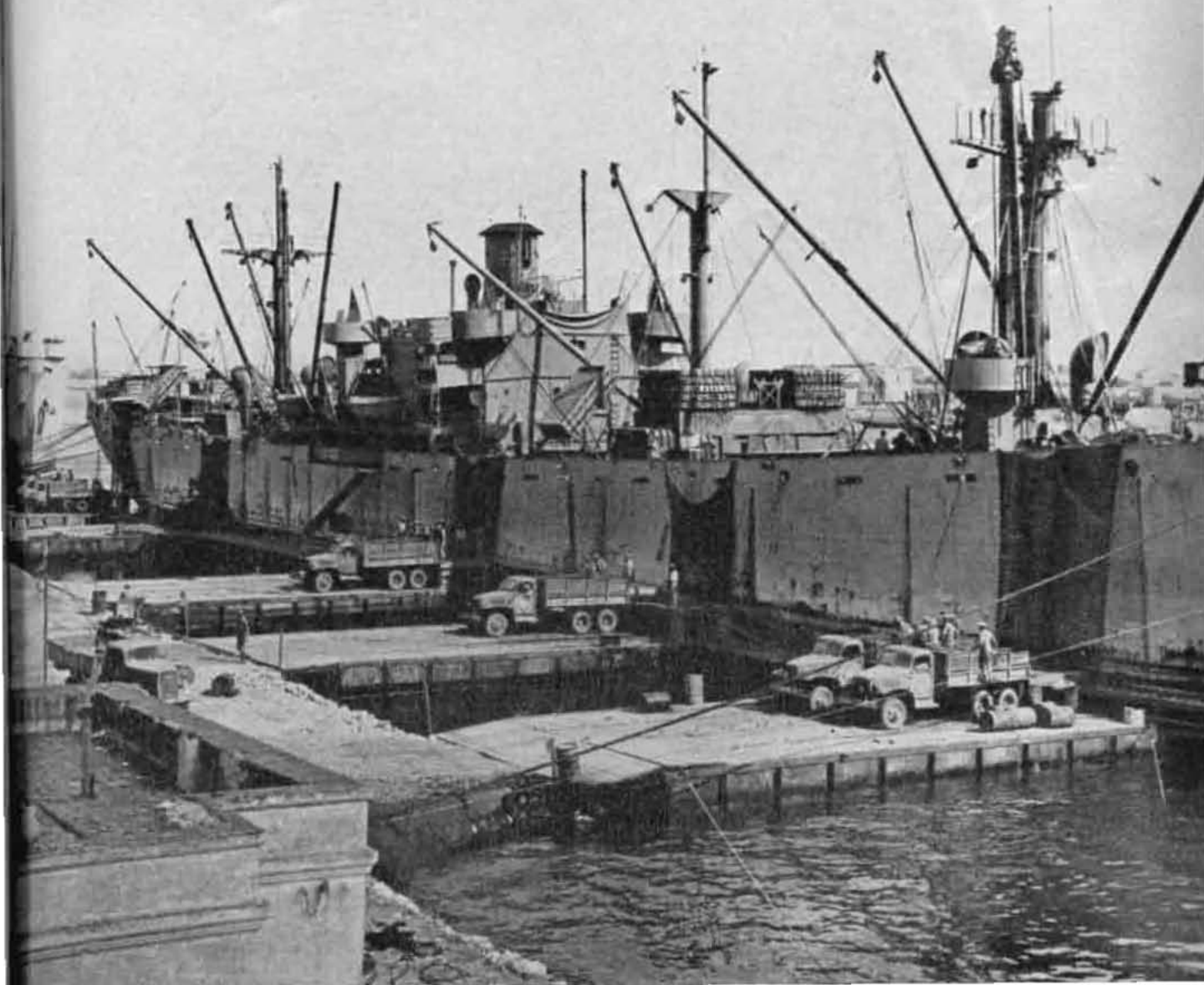


Proceedings of the

MERCHANT MARINE COUNCIL

Published monthly at Coast Guard Headquarters, under the auspices of the Merchant Marine Council, in the interest of safety at sea and the prosecution of the war effort.

CONTENTS

The Cover: A Liberty ship discharging army cargo directly into trucks. (W. S. A. Photo)

COUNCIL ACTIVITIES

FOLLOWING steps taken by the Navy to relax its wartime requirements on merchant shipping in waters considered as not subject to enemy action the Council undertook a study of its own emergency requirements with the view of determining what items could be eliminated. Close liaison is being maintained with the Navy and the War Shipping Administration. It is expected that upon merchant ships navigating the Atlantic outside of European waters return can be made to an almost complete prewar status. In certain European waters the existence of mines has still to be taken into account. No relaxation is contemplated in Pacific waters embraced in the Navy's combat zone.

As a wartime measure, the calcium water lights attached to a portion of ships' ring buoys were prohibited in favor of electric water lights. This change was made because of the risk of igniting oil or gasoline that might have spread upon the surface of the water as a result of a ruptured shell of a tanker or oil-burning vessel. The tankship operators specifically recommended this step and the question of whether to make it a part of the peacetime regulations has been laid before the entire industry for comment.

The present designs of water lights have not proven satisfactory in service and a substantial number of failures have resulted. Accordingly, new specifications have been drawn up which, it is believed, will remedy the situation. These specifications are available at Coast Guard Headquarters. The Council recognized that, in outlawing the calcium light, they were eliminating a valuable daytime signal, in the shape of the smoke that the calcium gave off. The electric light does not act as an aid to locating the buoy in daytime. The Research and Development Division has been given the task of developing a smoke signal for incorporation into the electric water light and furnishing a readily visible day signal.

The recommendations of the Commandant, U. S. Coast Guard, with respect to improvement in design and construction of the improved type life rafts resulting from life raft tests previously reported in the *Proceedings* have been distributed to industry and interested public members for comment. The Engineer in Chief, U. S. Coast Guard, is presently analyzing the comments which have been received and preparing a revision of specifications for submission to the Council.

The Council has given study to an increased provision of detailed specifications for articles requiring Coast Guard approval, with the object of more clearly informing prospective makers as to the requirements for approval. Where such specifications exist, approval will be granted on the certification of the Engineer in Chief that a submitted article meets the specifications. It is expected that this procedure will expedite the handling of new items of equipment at Headquarters and facilitate the securing of approvals. Consideration is also being given to the elimination, in large measure, of specifications from regulations and their issue separately.

Insuring Safe Cargo Gear

DEFECTIVE cargo gear is a source of great potential danger, not only to longshoremen but to the ship's personnel and perhaps to the ship itself. Under hard usage running gear deteriorates rapidly and weaknesses will develop in out-of-the-way spots. If not searched for and remedied, these weaknesses may cause a casualty of serious nature which will occur without the least warning. The only effective precaution is constant vigilance as exercised in frequent and thorough inspections. This is one of the paramount duties of the ship's chief officer.

All cargo gear should be taken down and overhauled periodically—twice a year, at least, and more frequently in the case of ships on short runs. Topping lift blocks should be struck down, pins drawn and greased and sheaves noted for uneven wear. Masthead pad eyes should be inspected at this time. Blocks on the boom should be similarly inspected and the boom gooseneck sighted. Falls should be carefully gone over and if stranded to any extent should be discarded and the good portions used for strongback bridles or davit-guys. All blocks, pins, and swivels should be kept adequately lubricated at all times.

Standing rigging should not be neglected, particularly preventer stays. Their turnbuckle threads should be heavily coated with a nondrying lubricant, like white lead and tallow, and covered with a canvas breeching. Nowadays most standing rigging is cast into sockets, but where eye splices are used they should be carefully examined for corrosion, particularly if parcelled and served. This covering should be cut away at least every 2 years to permit inspection of the splice.

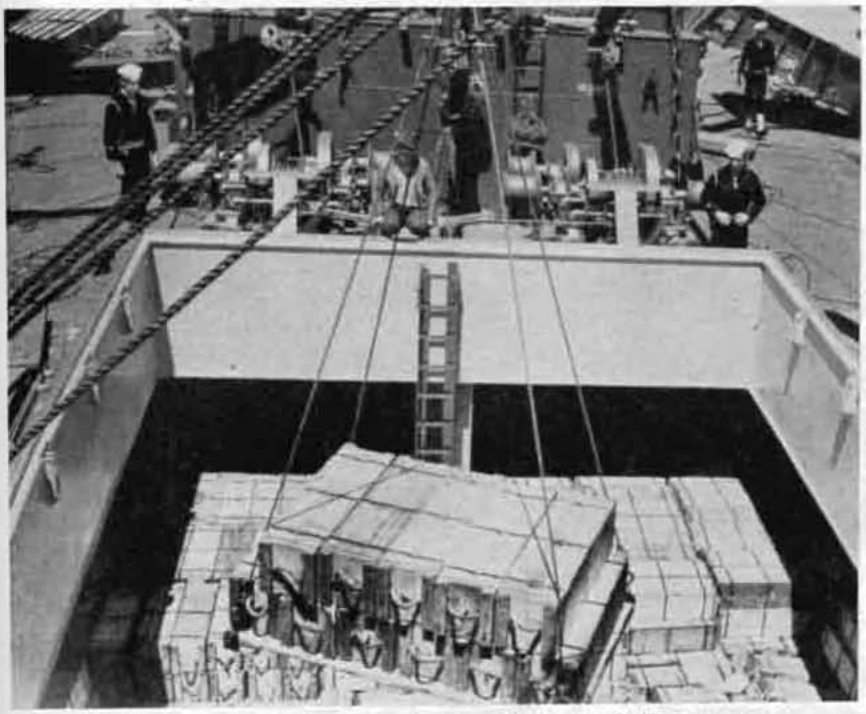
Wooden booms should be examined for checks and where these are serious, they should be payed with marine glue. Ironwork on wooden booms should be examined for fit as well as wear. Topping lift stoppers should be of proper sized chain, frequently inspected. Where wire topping lifts are made fast on a cleat, the turns should be carefully seized together so as to prevent jumping off.

Preventers should always be made fast around the boom head, independent of other gear, and set well taut. Preventers and vangs should lead as nearly as practicable at right angles to the boom. All falls should lead through lizards on the boom, so that a slack fall will not hang in a bight. Double-burton falls should always be shackled to a ring—never to a shackle which might open if the draft is hoisted into a flat catenary. Except for the cargo hook itself, open hooks should not be used anywhere in cargo gear. Do not use a snatch block for even temporary purposes if it is possible to use a regular block.

Strongback bridles should be of such length that each arm of the span makes an angle of not less than 60° with the strongback. The wire splices should be served to prevent hand injuries. Bridle hooks should secure near enough to the ends of the strongback so that men can hook and unhook them without going out on the strongback. Each end of the bridle should be fitted with a short manila pennant, by which the strongback can be guided into position. Strongback sockets should be kept free of dirt and trash to insure that strongback goes all the way home when seated.

Worn or split hatch boards should be discarded, and every effort should be made to prevent damage to such board. Skids or dunnage should be used on tween deck hatch covers when drafts are being landed thereon. Stevedores should not be allowed to use hatch boards for loading platforms or other similar purposes. The boards should be carefully and neatly piled near the hatch but out of the way. A cargo space should never be worked through a section of a hatch—all covers and strongbacks should be removed if it is to be worked at all.

In closing a hatch every board should be in its proper place and should secure the maximum rest upon the strongback lip. Short boards are a menace, but still more dangerous is a hatch, covered with its tarpaulin, but without all of its hatch boards in place. This practice, and that of leaving an open, unworked hatch without lifelines rigged, have been the cause of many fatalities.



The safety of gear should be beyond question with these cargoes.

Water Resistant Matches

By our own legislation, and by international convention, all lifeboats are required to carry a supply of matches in a watertight container. The container serves to keep the matches dry until needed, but, of course, cannot protect them once they are removed for use. In a rainstorm or heavy spray not only are there few dry places about the boat to strike the matches, but they themselves are liable to become soaked and useless almost immediately.

There has been developed recently, for the military services, a water-resistant match, of the strike-anywhere type, which will ignite when wet and will strike upon a moist surface. Even after being immersed for extended periods in water, they will give a substantial percentage of ignitions, and if dried out will regain practically complete effectiveness, according to tests made by the Coast Guard's Research and Development Division.

No changes in present regulations concerning matches will be made but the existence of this new water-resistant type is called to the attention of the marine industry as a desirable improvement. Such matches are available for special marine use.

Wartime Numbering Regulations Amended

THE Acting Commandant, U. S. Coast Guard, Rear Adm. L. T. Chalker, on 29 May 1945, amended the wartime regulations administered by the Merchant Marine Inspection Division, which required numbered motorboats to display large size numbers while on navigable waters of the Atlantic Coast, Gulf Coast, Great Lakes, inland lakes, and on their connecting or tributary waters, and the Red River of the North. Such undocumented vessels found on such waters are also no longer required to have the number painted on the top side for the purpose of aerial identification.

This amendment will not require the owners of such vessels to immediately revert to peacetime requirements, and owners of vessels on the Atlantic Coast, Gulf Coast, Great Lakes, inland lakes, and on their connecting or tributary waters, and the Red River of the North, may continue to display the large size numbers at their discretion, because the Act of June 7, 1918, as amended (46 U. S. C. 288), provides that such numbers shall be displayed in figures not less than 3 inches in height.

With respect to undocumented vessels found on the navigable waters of the Pacific Coast and its tributaries, except inland lakes and their connecting waters, the height of the numbers has not been changed and is still required to be in accordance with the following scale:

Length of vessel:	*Height in inches*
Under 20' 0''	6–8
20' 0'' and under 40' 0''	10
40' 0'' and under 60' 0''	18
60' 0'' and over	24

Portable Lights on Tank Vessels

THE attention of the Coast Guard has often been directed to cases where the improper type of portable extension lights has been used in tank vessel compartments where explosive vapors are likely to be present. Occasionally explosions have occurred, resulting in death and serious injury to the persons nearby, and usually in considerable damage to property.

In the Coast Guard rules and regulations applicable to tank vessels, sections 32.6–1 (d) and 32.6–4 require that portable extension cables and fittings be of an approved type. When electrical equipment is examined for approval, consideration is given to the various locations in which the equipment might be used and to the hazards prevailing in each location. The various spaces aboard ship in which electrical equipment may be used are broken down into four classifications, namely, passenger and crew quarters and public spaces; machinery, dry cargo and work spaces; open decks; and pump rooms and cargo tanks of tank vessels. In general, explosion-proof lights are found satisfactory for use in all types of locations, whereas the vapor-proof lights are not satisfactory for use in spaces containing explosive mixtures. It is essential that extreme care be exercised on shipboard in the use of a portable light to make certain that the one selected is suitable for use in the location concerned.

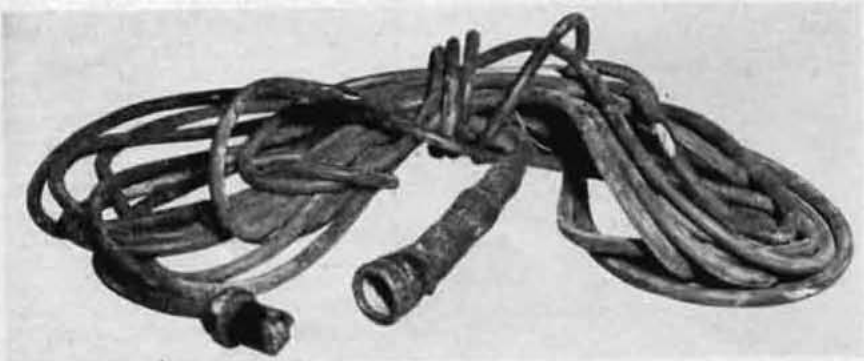
A type of portable explosion-proof light that is approved for use in all locations has an automatic switch which stops the flow of current the instant the glass globe is broken. Above the threads on the handle, there is a springloaded disk which presses against a pin when the globe is screwed down in place. When this pin is depressed, the circuit is closed and current will flow. The disk and the pin are held down by means of the glass globe. When the globe breaks, the pressure on the disk is released, the pin rises and the circuit is opened, thus stopping the flow of electricity and preventing the ignition of any gases present due to electric arc.

In addition to the fact that on occasions the personnel on tank vessels have used a portable light not suitable for the location concerned, it has also been noted that more attention should be paid to the condition of the equipment taken with them when entering one of these compartments. This becomes readily apparent upon examination of some of the defective portable equipment which has been found in use.

In picture No. 1, one of these cables is shown with the rubber insulation cracked and torn. The poor repair job performed on the connection of the cord to the light socket is also evident. Once the outer rubber covering becomes brittle and cracks, the insulating qualities of this covering are gone. The cotton braid beneath cannot be relied upon to provide adequate insulation. The life of such a cord has passed, and its use should no longer be permitted. When the rubber covering has been cut, or repair jobs, such as the socket connection shown in the picture, are required, the items should be repaired by a capable electrician. No electric extension cords or lights should be used when they are of home-made construction or when the repairs are performed by a person unskilled in such work. The use of this type of light in spaces containing explosive mixtures is almost sure to cause trouble. It should be noted that no provisions are made on the socket for the attachment of a globe or guard.

Picture No. 2 shows a portable vapor-proof light and extension cord in the exact condition as it was being used in a tank vessel compartment possibly containing explosive vapors. The extension cord should have been discarded since the insulation in this case had become brittle and was cracked in many places. The use of the vapor-proof light without a guard was extremely poor practice since an explosion could have resulted if the glass globe had broken. Even though this vapor-proof light had been equipped with a guard and with a good extension cord, it should not have been used in a space likely to contain an explosive mixture. Such a vapor-proof light and cord, when in good condition and properly equipped, should only be used in or near compartments entirely free of explosive vapors.

The individual who is supervising the men working in or near tank vessel compartments should make certain that these extension lights are correctly supported when in use so that they are not likely to fall and break. The need of properly securing the portable electric equipment while the individuals are working was



Picture No. 1: Defective cable.

evidenced only recently by a casualty wherein improper securing of a portable electric light resulted in the death of one man and injury to two others. The portable light being used was inadequately secured to a transverse beam and, as a result, the light fell to the bottom of the tank and the glass broke, igniting the explosive vapors.

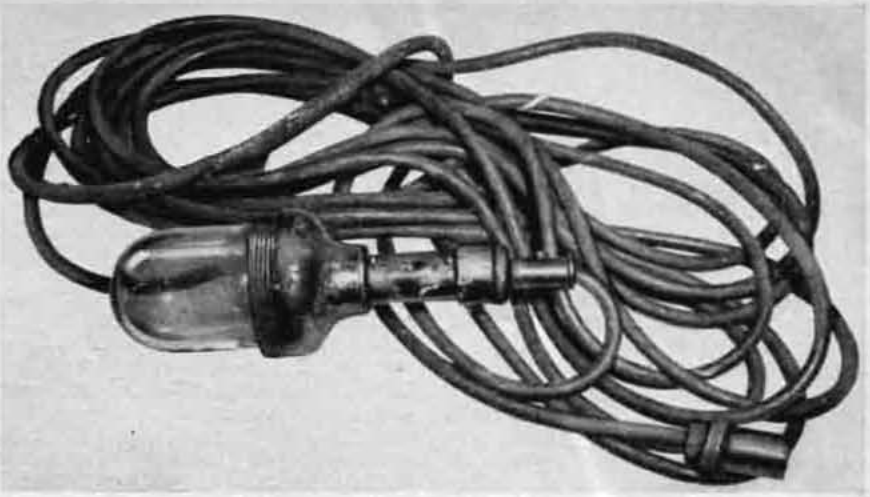
In view of the foregoing, ships' personnel should make certain that the following conditions are satisfied before plugging in a portable extension light:

1. Is the light approved for the compartment in which it is to be used and for the hazards prevailing therein?

2. Is the light equipped with a glass globe?

3. Is the light equipped with a guard?

4. Are the light and extension cord in good mechanical and electrical condition, with no cracks or tears in the insulation?



Picture No. 2: Unsafe portable light.

5. Has the light been properly secured so as to prevent its falling?

If these conditions are checked by the men working in or near tank vessel compartments and by individuals who are supervising the workmen, many casualties of the above nature will be avoided in the future.

Kapok Life Preservers

ALNAV 110, dated 28 May 1945, indicated Navy policy for conserving kapok life preservers in view of the present critical shortage of kapok. The Alnav is quoted as follows:

"Life preserver issues indicate exhaustion kapok stock pile by end 1945. More careful issues and use kapok life preservers imperative. Their availability can be prolonged by ships and supply activities returning all reclaimable kapok pads and worn-out life preservers to continental supply depots for reprocessing. Keep kapok dry in transit and storage."

Prime Japara and Private Estates kapok from Java, which constituted the bulk of our flotation-quality kapok supply, are still unobtainable since Java has not yet been recaptured. Although extensive development work has been conducted for the purpose of securing substitute buoyant material, sufficient quantities are not yet available. The result is, as stated in the May issue of the Proceedings of the Merchant Marine Council, that our existing stock pile of kapok is insufficient to meet requirements for the balance of 1945.

Steps were taken by the Committee on Design and Testing of Life Preservers, composed of representatives of the Army, Navy, War Shipping Administration, Maritime Commission, War Production Board, and Coast Guard to facilitate the reclaiming of kapok from life jackets approved by the Coast Guard, in that Coast Guard Models 1, 2, and 3 (C. G. Dwg. No. F–49–6–1, sheets 1 and 2, and specification dated 10 June 1944) were designed to utilize removable pads. Faced, as we are, with the fact of inadequate supplies of kapok for the year, it is apparent that action must be taken by operators and ship personnel to conserve kapok by insuring adequate attention to the care and maintenance of life jackets so as to facilitate reclaiming.

It is important that torn or soiled jackets be kept as dry and clean as possible and be made available for reprocessing. In this connection the following procedure is suggested in the reclaiming of kapok:

Suitable kapok:

a. Kapok taken from life preservers is suitable for reclaiming and reprocessing; except that all soiled, discolored, powdered, oil-soaked, badly damaged and badly lumped portions, or parts showing other abnormalities as compared to new kapok, shall be discarded.

b. Kapok taken from pillows, mattresses, hassocks, or other such articles is not suitable.

Processing:

Reclaimed kapok shall be processed by teasing in a machine using the air-blow method. Machines using beaters or violent agitation which breaks down the fibers or causes undue powdering or pulverizing will not be permitted.

Test of reclaimed kapok:

Reclaimed kapok shall, before being mixed with new kapok, pass the same buoyancy test as for new kapok; i. e., support a ratio of not less than 48 pounds per cubic foot when tested in the manner set forth in paragraph E–5 of Navy Department Specification 27K1.

Mixing with new kapok:

Reclaimed kapok shall be thoroughly mixed in the air-blowing machine with new kapok in the ratio of one part reclaimed kapok to one part new kapok.

Finally, it is to the interest of motorboat operators to take care of buoyant cushions in use on their boats, inasmuch as the use of flotation-quality kapok, including reclaimed kapok, is reserved by WPB Conservation Order M–85, as amended, for use in life preservers and life belts on vessels engaged in the war effort.

LESSONS FROM CASUALTIES

Fuel Oil Tank Explosion

The rules and regulations applicable to tank vessels have recently been amended by the addition of a new section which states that riveting, welding, burning or like fire-producing operations shall not be undertaken within or on the boundaries of bulk cargo spaces or in spaces adjacent thereto, until an inspection has been made to determine that such operations can be undertaken with safety. It is further stated that such inspections shall be made and evidenced by the issuance of a gas-free certificate by a certified gas chemist or by some other authorized person. Although this regulation is not applicable to cargo vessels, the same hazard prevails on such vessels when fire-producing operations are undertaken on or near fuel oil tanks or other tanks containing combustible or inflammable liquids.

Only recently an explosion occurred on a Liberty ship, killing two men and injuring five others. The vessel on which the casualty occurred was one of a group of Liberty-type vessels which were in a shipyard for operational repairs and for conversion work in preparation for the carrying of troops. One of the items called for in the specifications was the construction of a steel medical locker which was to be formed by the erection of three sides against the existing engine-room bulkhead. The locker was to be secured by welding the bottom edges of the three sides to the No. 3 port deep-tank top.

Prior to commencing this work, the No. 3 port and starboard deep tanks were partially emptied by gravitation. This process removed all but approximately 100 barrels of fuel oil from each tank. This transfer of fuel oil was not a precautionary measure as a result of the contemplated hot work but constituted a part of normal shipboard operations. The chief engineer was not aware that any hot work was contemplated near these tanks.

The erection of the medical locker was started without any apparent attempt being made to ascertain the contents of the adjoining compartments. The sides were erected and tack welded without mishap. It was while the bottom edges of the sides were being welded to the tank top that sufficient heat was generated for the ignition of the explosive vapors in the fuel oil tank. The explosion which followed tore a hole in the ship's hull below the water line and also opened up the fuel tank into the machinery space. It was in this space that two men were killed and three were injured by the force of the explosion. The machinery space was flooded and the vessel settled to the bottom with a slight port list in approximately 25 feet of water.

Prior to and during the erection of the medical locker on the fuel oil tank top, there apparently existed among all individuals concerned an indifference as to whether the tank was gas-freed or not. No attempt was made to ascertain the contents or the condition of the tank to insure that it was safe to perform hot work thereon. Since similar work had previously been performed on other Liberty ships without gas-freeing the tanks, and since no casualty had occurred, caution was apparently disregarded. Each individual in a supervisory capacity assumed that the man above him had taken care of the necessary details to insure safe operation, and no check was made to confirm the individual's own belief.

It was further revealed in the investigation of this casualty that some individuals had the erroneous opinion that as long as the hatches and manhole plates were bolted down securely and the sounding pipes were plugged, it was safe to work on the outside of oil tanks without gas-freeing the interior. They felt that it was only necessary to secure such certificates when tanks were open or when work was to be performed on the inside of the tanks. This is entirely fallacious, since the heat generated by welding and burning will be transmitted by the steel plates and, in this manner, it is possible for tank boundaries to become heated to the ignition point of the fuel oil vapors inside the tank, at which time an explosion will occur. It must be remembered that combustible materials will ignite when they are heated to the ignition point, regardless of whether the heat is provided by an open flame, spark, or by conduction.

Tanks which have been used for the carriage of inflammable or combustible liquids are a potential danger when hot work is contemplated within or on the boundaries of the space or in spaces adjacent thereto. When fire-producing work is contemplated on or near any tanks containing or having contained an inflammable or combustible liquid, make certain that it is safe for the performance of such work. The sad part of this case is that two men lost their lives, with five others being injured. These men were no doubt expert in their line, and the loss of their services in the war effort will be felt. In addition, the services of the vessel will not be available for war use for some time to come, and the ship will occupy a berth in our already overcrowded repair yards. Cases like this can be avoided by proper direction and supervision by those in charge.

Caution, Poison

In the February 1945 issue of the Proceedings of the Merchant Marine Council there appeared an article entitled "Liquid Death" which vividly depicted the foolhardiness of some seamen in their endeavor to secure an intoxicating drink and of their complete ignorance of the disastrous effects of some of the mixtures. This has been brought to the attention of the Coast Guard again by a recent casualty wherein the drinking of methyl alcohol, or wood alcohol as it is often called, resulted in the death of five men and the hospitalization of another in a serious condition.

Some members of the crew had gathered together in one of the staterooms to enjoy a few drinks. The ingredients for the drinks were methyl alcohol procured from the engine storeroom and fruit juices obtained from the steward. Several drinks were mixed for those members present and with the passing by of other individuals, it wasn't long before approximately half of the crew had taken at least one drink of the concoction.

One of the newcomers while mixing himself a drink noticed that on the gallon jug of methyl alcohol there was a red label reading "Caution, Poison" with the sign of the skull and crossbones underneath. Immediately he questioned the instigator of the drinking party as to the contents of the jug. The reply was that he was sure that the alcohol was not poisonous because it had been tested prior to its use. A spoonful of the alcohol had been burned and since there was no residue after the burning, the giver of the party had come to the wholly false conclusion that it was safe to drink and that the skull and crossbones label had been placed on the jug merely to deter its use as a beverage. The newcomer was not satisfied with this statement and, after advising those men present in the room that the alcohol they were drinking was poisonous, he left. The warning made no impression, however, and the drinking continued.

The following morning several members of the crew complained of severe headaches and stomach cramps but none of them seemed to consider their condition as serious. During the afternoon the heavier drinkers ap-

peared to be in a drunken stupor but they continued to do their work about the ship. In the early evening some of the individuals were found groaning and in a dazed condition. They soon fell into coma and died without regaining consciousness.

The amazing fact is that some of the ship's officers participated in this drinking party and that they paid no heed to the label and its warning that the contents were poisonous. Licensed officers are supposed to possess qualities of leadership as well as to exercise good judgment, but those concerned were certainly devoid of both.

All these prevalent fallacious beliefs that the toxic properties of wood alcohol can be removed by filtering through a loaf of bread and that a liquid is not poisonous if there is no residue after burning a little on a spoon, should be discarded at once. Methyl or wood alcohol is a deadly poison and there is nothing that can be done on shipboard or elsewhere to remove or lessen its poisonous qualities. Denatured alcohol is likewise poisonous. This liquid is obtained by adding to ethyl or grain alcohol a denaturant which makes the liquid dangerous to drink. The containers of these two alcohols should be labeled as poison and such a label should be respected. It must be remembered that labels are used for the purpose of describing the contents and are not used to deceive people. Death by methyl alcohol is an agonizing one. If you value your life, avoid drinking it.

Cranking Lifeboat Engines

In the present day of self-starters on gasoline engines, both automobile and marine, the trick of hand-cranking an engine has either been forgotten or never learned. Nevertheless, many of our motor lifeboats must be started by means of a crank and this can be a danger as was discovered by a ship's officer who suffered a broken arm in the process. It may, therefore, be appropriate to emphasize the simple rules which an older generation of automobile drivers learned from their first Ford.

First, retard the spark (if possible) to its fullest extent. This reduces the likelihood of a kick-back, caused by ignition before the piston has made its full compression stroke.

Second, crank by pulling upwards, rather than by pressing down or by endeavoring to spin the crank. In case of a kick-back the crank will be pulled from the hand, instead of driven upwards against the arm. While the clutch of the crank is designed to disengage when the engine turns in its proper direction it will not do so in a kick-back.

Third, the thumb should be on the same side of the crank handle as the fingers so that if a kick-back should occur near the top of the crank stroke, the handle will whip out of the grasp without injury to hand or arm.

These are simple rules to follow and may save a painful injury in a struggle with a balky engine.

Foreign Matter in Bearings

Engine trouble was recently experienced on a vessel as a result of dirt and steel shavings blocking the oil supply to the after bearing of the high speed pinion on the low pressure turbine, causing the bearing to become overheated, resulting in bulging and fracture of the metal. It was evident that the dirt and steel shavings had been left in the oil system or gear casing during the period of installation, and apparently in a place where it could not be forced to pass through the strainers or purifiers. It would appear that the oil system had not been properly cleaned or flushed out before being put into operation.

To avoid the recurrence of casualties of this nature, extreme caution should be exercised by the engineering personnel attached to the vessel to see that all parts prior to installation are clean and free of extraneous material. The bearings, shafts, and gear casings should be thoroughly cleaned, and all oil lines should be blown out with compressed air. Although such lubricating systems are provided with adequate strainers and purifiers, these lubricating oil filters will not protect the bearings and shaft from foreign substances which have entered the system at a point beyond the strainers. This foreign material gets onto the bearings and shafts at the time of installation or repairs when the gear casings are removed. To insure proper operation and efficient lubrication, responsible persons should make certain that all parts are thoroughly cleaned and flushed out before the shaft is put into place and the gear casing is bolted down.

Hearing Units

COAST GUARD Merchant Marine Hearing Units and Details investigated a total of 4,048 cases during the month of April 1945. From this number hearings resulted involving 147 officers and 1,083 unlicensed men. In the case of officers one license was revoked, 35 were suspended, 69 were suspended on probation, 7 were voluntarily surrendered, 12 hearings were closed with admonitions, and 31 cases were dismissed. Of the unlicensed personnel 31 certificates were revoked, 277 were suspended on probation, 436 were voluntarily surrendered, 24 hearings were closed with admonitions, and 65 cases were dismissed.

Remote Control Valves

THE Regulations require that the bilge suction lines on passenger vessels be fitted with a screw-down check valve or a stop check lift valve in the compartment which it serves. The object of this arrangement is to prevent the compartment from being flooded in the event of the pipe being severed or otherwise damaged by collision or grounding in any other compartment. These valves are not required on freight vessels but are often fitted as an additional safety measure. The load line rules require that a screw-down valve be fitted inside the forepeak bulkhead to the forepeak suction line in order to guard against flooding any of the holds in case this line is damaged. This rule also only applies to passenger vessels but is almost universally fitted to forepeak suction lines on freight vessels as well. A similar valve is nearly always fitted to the afterpeak tank even though not required by any of the rules and regulations. The Regulations also require that shut off valves shall be installed at the bulkhead of deep tanks, peak tanks, or settling tanks, which may be used for the storage of fuel oil and where filling or suction pipes are at a level where the pipes may be exposed to a head pressure from the tank. This latter class of shut off valves must be fitted on all types of ships, both passenger and freight. All of these valves must be operable from a space above the bulkhead deck.

Recently valves as described in the preceding paragraph have been found on Liberty ships and certain other cargo vessels to have been left open until, in many instances, they have been frozen in the open position. As stated above, not all of these valves are required on freight vessels but where fitted, it is obvious that they should be maintained in an operating condition.

In several of the instances cited above, uninjured compartments on vessels have been flooded when a ship has suffered war damage, and when, by the shutting of the valves described, the damage could have been confined to one hold. In some cases none of the ships' officers knew the purpose of these valves or that they even existed.

Every ship's officer should be familiar with the layout of his ship and with the purpose for which all valves and fittings are installed. It is sheer negligence for an officer to see a valve of this nature on deck or in some shelter deck and not ascertain what it is for, particularly in times like the present, when ships are still subject to mine damage in European waters and are subject to all the dangers of enemy attack in the Pacific.

In order to insure that these valves remain in working condition the valve stems should be greased and the valves should be operated at every opportunity. Care should be taken that deck cargo is not stowed in such a manner as to prevent their operation. Remember that the ability to close one of these valves may mean the difference between flooding and not flooding a cargo hold. This in turn may mean the difference between a ship's sinking or being brought into port. Marine inspectors are being directed to pay particular attention to these valves in annual and reinspections and ships' officers may expect to have their knowledge of this part of the ship checked up on.

Relaxation of Wartime Controls

IN the Appendix of this issue of the *Proceedings* will be found extracts from the Federal Register of June 8, 1945, having to do with the relaxation of wartime Coast Guard requirements on the Atlantic and Gulf Coasts. Chief of these is a General License, issued by the Commandant, which in effect removes all serious restrictions upon the operation of pleasure craft and fishing vessels within the applicable waters. In these areas no individual movement licenses will hereafter be required.

Restricted, prohibited, and danger areas still exist, as published in *Notices to Mariners* and usually shown upon coastal charts. Operators of small craft should avoid these areas, which may be used for bombing and strafing practices or otherwise be perilous to the trespasser. No vessel is permitted to approach within 100 feet of any military installation or waterfront facility except upon legitimate business. Anchorage regulations, of course, must be complied with at all times.

The Air Raid and Black-Out Regulations applying to vessel in harbor, and to the port facilities themselves are abolished on the Atlantic and Gulf Coasts and the Coast Guard no longer stations its personnel as guards at piers or facilities nor uses patrol craft as guards from the water side. The use of identification cards for personnel going aboard merchant vessels is eliminated, except for longshoremen doing explosives loading and for the licensed and certificated men actually employed upon the vessels.

Ships and piers are still vital. (W. S. A. Photo)

The fact that the Atlantic and Gulf Coasts can now be considered as safe from enemy attack does not mean that the ports located thereon, with their waterfront facilities, do not remain vital abutments for our bridge of ships supplying the Pacific war. The use of these facilities to the utmost will be necessary until VJ-day. With the withdrawal of Coast Guard and Navy personnel from guard and protective duties the responsibility for the safety of vital facilities rest more heavily upon the steamship organization and the facility operator. The Coast Guard is sure that this responsibility will continue to be taken seriously.

APPENDIX

Amendments to Regulations

TITLE 33—NAVIGATION AND NAVIGABLE WATERS

Chapter I—Coast Guard, Department of the Navy

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

GENERAL LICENSES

Pursuant to the authority vested in the Commandant, U. S. Coast Guard, by § 6.18 of this part, and finding that it would not be inimical to the national war effort or to the safety and protection of vessels or the territorial waters, General Licenses Nos. 1, 2, 3, and 4 (§§ 6.200–6.203 of this part) are superseded and repealed and new General Licenses Nos. 1 and 2 are issued as follows, effective upon publication in FEDERAL REGISTER.

§ 6.201. *General License No. 1.*—(a) All vessels exclusive of those covered by § 6.19 of this part which are now in or which may hereafter enter the local waters of the United States as defined in § 6.1 (b) of this part bordering on or emptying into the Great Lakes and their connecting waters, the Atlantic Ocean, or the Gulf of Mexico are hereby generally licensed to move within or to depart from such local waters by crossing the international boundary between the United States and Canada or to operate in the waters of the Atlantic Ocean or Gulf of Mexico subject to the terms and conditions prescribed in paragraph (b).

(b) This general license is granted subject to the following terms and conditions:

(1) No vessel may operate under the terms of this license unless it complies with the instructions and directions of the Captain of the Port having jurisdiction over the waters within which such vessel operates.

(2) Operation within restricted, prohibited or anchorage areas shall be in accordance with regulations governing such areas as provided for under Subpart C.

(3) The Captain of the Port, subject to the approval of the District Coast Guard Officer, may exclude individual vessels from this general license upon notification to the owners, agents, masters, or operators thereof: *Provided*, That any vessel so excluded may be granted an individual license under the provisions of §§ 6.15 or 6.16 of this part.

(4) No vessel which is not a common carrier primarily engaged in the transportation of passengers for hire over regularly scheduled routes may have an enemy alien on board in any capacity: *Provided*, That an enemy alien may be on board a common carrier primarily engaged in the transportation of passengers for hire over regularly scheduled routes only in the capacity of passenger.

(5) This general license may be revoked by the Commandant of the Coast Guard whenever he finds that its continuance in force would be inimical to the interests of the war effort or to the safety and protection of vessels or the territorial waters of the United States.

(6) This general license does not provide authority for the operation of any vessel which has heretofore been denied an individual movement license for local waters or which has heretofore been excluded from the benefits of a general license for local waters issued by the Captain of the Port: *Provided*, That any such vessel may be issued an individual license under the terms of §§ 6.15 or 6.16 of this part, or may be granted the privileges of this general license by written order of the Captain of the Port or of the Commandant of the Coast Guard.

(7) The issuance of this general license does not in any manner relieve any vessel covered thereby, or its owner, master, or operator from compliance with the provisions of any other applicable law or regulation.

§ 6.202 *General License No. 2.*—(a) All vessels which are now in or which may hereafter enter the local waters of the United States as defined in § 6.1 (b) of this part bordering on or emptying into the Pacific Ocean are hereby generally licensed to move within, but not to depart from such local waters subject to the terms and conditions prescribed in paragraph (b).

(b) This general license is granted subject to the following terms and conditions:

(1) No vessel may operate under the terms of this license unless it complies with the instructions and directions of the Captain of the Port having jurisdiction over the waters within which such vessel operates.

(2) Operation within restricted, prohibited or anchorage areas shall be in accordance with regulations governing such areas as provided for under Subpart C.

(3) The Captain of the Port, subject to the approval of the District Coast Guard Officer, may exclude individual vessels from this general license upon notification to the owners, agents, masters, or operators thereof: *Provided*, That any vessel so excluded may be granted an individual license under the provisions of § 6.16 of this part.

(4) No vessel which is not a common carrier primarily engaged in the transportation of passengers for hire over regularly scheduled routes may have an enemy alien on board in any capacity: *Provided*, That an enemy alien may be on board a common carrier primarily engaged in the transportation of passengers for hire over regularly scheduled routes only in the capacity of passenger.

(5) This general license may be revoked by the Commandant of the Coast Guard whenever he finds that its continuance in force would be inimical to the interests of the war effort or to the safety and protection of vessels or the territorial waters of the United States.

(6) This general license does not provide authority for the operation of any vessel which has heretofore been denied an individual movement license for local waters or which has heretofore been excluded from the benefits of a general license for local waters issued by the Captain of the Port: *Provided*, That any such vessel may be issued an individual license under the terms of § 6.16 of this part, or may be granted the privileges of this general license by written order of the Captain of the Port or of the Commandant of the Coast Guard.

(7) The issuance of this general license does not in any manner relieve any vessel covered thereby, or its owner, master, or operator from compliance with the provisions of any other applicable law or regulation.

Dated: May 31, 1945 (10 F.R. 6843–6844, 8 June 1945).

PART 10.—AIR RAID AND BLACK-OUT REGULATIONS FOR VESSELS, HARBORS, PORTS, AND WATERFRONT FACILITIES

Pursuant to Executive Order No. 9074 (7 F.R. 1587) and in accordance with the provisions of the Act of July 9, 1943, 57 Stat. 391, the Air Raid and Black-Out Regulations for Vessels, Harbors, Ports, and Waterfront Facilities are amended as follows, effective upon publication in the FEDERAL REGISTER:

Section 10.1 to 10.13 inclusive are hereby repealed.

Dated: June 15, 1945 (10 F.R. 7343–7344, 19 June 1945).

TITLE 46—SHIPPING

Chapter I—Coast Guard: Inspection and Navigation

Subchapter D—Tank Vessels

PART 31—INSPECTION AND CERTIFICATION

GENERAL INSPECTION REPORTS AND PROCEDURE

Section 31.6–1. *Annual reports of inspectors—TB/ALL* is deleted. (10 F.R. 7501, 21 June 1945).

Subchapter F—Marine Engineering

PART 51—MATERIALS

STEEL CASTINGS

Section 51.17–12 (c) is amended to read as follows:

§ 51.17–12. *Finish*—* * *

(c) *Repair by welding*—Defects which do not impair the strength of the castings may be repaired by welding. The defects shall be removed to solid metal prior to any welding, and when so required by the inspector, the castings in this condition shall be submitted to him for approval prior to proceeding with the repairs.

PART 52—CONSTRUCTION

HEADS

Section 52.5–2 (a) is amended to read as follows:

§ 52.5–2. *Materials and workmanship.*—(a) Steel plate used in the fabrication of heads shall be either flange or firebox quality complying with the applicable sections of the regulations. Flanged or dished heads for Class I or Class II pressure vessels, except those exempted in note below, shall, after forming, be stress relieved in accordance with § 56.20–13 of this chapter, even though the entire vessel is not required to be stress relieved.

NOTE.—It is not mandatory in fresh and salt water service systems that flanged or dished heads be stress relieved for use on compression tanks with an air cushion containing liquids operating at temperatures not exceeding 212° F.

EVAPORATORS, HEATERS, TRAPS, SEPARATORS, PRESSURE VESSELS, AND MISCELLANEOUS APPLIANCES

Section 52.16–6 (a) is amended to read as follows:

§ 52.16–6. *Detail requirements*—(a) (1) *Evaporators.*—An approved safety valve set to relieve at a pressure not exceeding that for which the shell is designed shall be fitted to evaporators other than the following:

(i) Evaporators of the coil or tube type designed to operate with a steam inlet pressure not exceeding 10 pounds per square inch gauge.

(ii) Evaporators of the atmospheric type designed for vapor discharge direct to a distiller with no shut-off valve in the discharge line. The distiller connected to atmospheric evaporators shall be fitted with a vent to obviate a build-up in pressure. In no case shall the vent be less than 1½ inches in diameter.

(2) *Unfired pressure vessels.*—Each unfired pressure vessel, except evaporators as provided in (a) (1), shall be protected by a relief valve, the capacity rating of which shall prevent loading in excess of design pressure.

NOTE.—For certain pressure vessels containing liquids or vapors not in excess of 212° F., the Commandant may authorize the substitution of a bursting or rupture disc where the installation of a relief valve is impracticable. This shall not apply to vessels containing lethal or noxious substances.

PART 56—FUSION WELDING

RULES FOR CONSTRUCTION OF FUSION-WELDED DRUMS OR SHELLS OR MARINE BOILERS AND PRESSURE VESSELS

Section 56.20–12 (o) is amended to read as follows:

§ 56.20–12. *Reinforced fusion-welded connections.*—* * *

(o) Where Class II pressure vessels are required to be stress relieved, all nozzle connections and other attachments when joined by fusion welding shall be stress relieved. Where Class II pressure vessels as a whole are not required to be stress relieved, unreinforced nozzle connections and other attachments when joined by fusion welding are not required to be stress relieved. Where nozzles are reinforced with pads which have a thickness greater than that of the shell or head to which they are attached, the nozzle connection shall be stress relieved.

Section 56.20–12 (p) is deleted.

PART 57—SUPPLEMENTARY DATA AND REQUIREMENTS

Section 57.21–3 is amended by deleting the last sentence of paragraph (c).

Section 57.21–3 (e) is amended to read as follows:

§ 57.21–3. *Fusible plugs.*—* * *

(e) *Marking of fusible plugs.*—The name or initials of the manufacturer shall be stamped on the face of the casing for identification, and all plugs shall be numbered in accordance with the number of the heat from which the plugs were filled. For instance, the first pouring shall be number 1, and all plugs filled from this heat shall be numbered 1; the next pouring shall be number 2, and all the plugs filled from this heat shall be numbered 2, etc. The heat number shall be plainly stamped on the large end of the filling. When more than 500 plugs are poured from one heat, same shall be subdivided into lots of not more than 500 plugs. When the heat is subdivided, the number of the lot shall also be plainly stamped on the large end of the filling. The first lot of the heat shall be numbered 1; the next lot 2, etc. The heat and lot numbers shall be not less than 1/12 inch in height (10 F. R. 7123, 14 June 1945).

Section 153.22 is amended to read as follows:

§ 153.22. *Removal of calcium water lights.*—All calcium type self-igniting water lights shall be removed from all ocean and coastwise vessels and tank vessels and shall be replaced with approved electric water lights. On and after October 1, 1945, such electric water lights shall comply with the current U. S. Coast Guard Specification for Lights (Water); Electric, Floating, Automatic (with Bracket for Mounting).[1] No battery cell shall remain in the water light after seventeen (17) months beyond the date of manufacture appearing on the cell or its jacket. Approved electric water lights not conforming to the above referred to specification which are on board vessels prior to October 1, 1945, may be continued in service provided they are in good and serviceable condition; water lights replaced on and after October 1, 1945, shall comply with the requirements contained in this regulation.

Subchapter G—Ocean and Coastwise: General Rules and Regulations

PART 64—DUTIES OF INSPECTORS

Section 64.12. *Annual reports* is deleted (10 F. R. 7501, 21 June 1945.).

Subchapter H—Great Lakes: General Rules and Regulations

PART 83—DUTIES OF INSPECTORS

Section 83.11. *Annual reports* is deleted (10 F. R. 7501, 21 June 1945).

Subchapter I—Bays, Sounds, and Lakes Other Than the Great Lakes: General Rules and Regulations

PART 101—DUTIES OF INSPECTORS

Section 101.11. *Annual reports* is deleted (10 F. R. 7501, 21 June 1945).

Subchapter J—Rivers: General Rules and Regulations

PART 120—DUTIES OF INSPECTORS

Section 120.11. *Annual reports* is deleted (10 F.R. 7501, 21 June 1945).

Subchapter O—Regulations Applicable to Certain Vessels and Shipping During Emergency

Section 153.7a (l) is amended to read as follows:

§ 153.7a. *Equipment for life rafts approved on and after March 15, 1943.*—* * *

(l) *Electric water light.*—On and after October 1, 1945, one approved electric water light complying with

[1] A copy of the specifications is on file in the office of the Federal Register, and copies may be obtained upon request from the Commandant (EMM), United States Coast Guard Headquarters, Washington 25, D. C., or any District Coast Guard Officer (10 F. R. 7123, 14 June 1945).

the current U. S. Coast Guard Specification for Lights (Water); Electric, Floating, Automatic (with Bracket for Mounting).[1] No battery cell shall remain in the water light after seventeen (17) months beyond the date of manufacture appearing on the cell or its jacket. Approved electric water lights not conforming to the above referred to specification which are on board vessels prior to October 1, 1945 may be continued in service provided they are in good and serviceable condition; water lights replaced on and after October 1, 1945 shall comply with the requirements contained in this regulation.

Waivers

TITLE 46—SHIPPING

Chapter I—Coast Guard: Inspection and Navigation

Appendix A—Waivers of Navigation and Vessel Inspection Laws and Regulations

MARINE ENGINEERING AND MATERIAL SPECIFICATIONS; FLANGES AND FITTINGS FOR CLASS II PIPING

Vessels engaged in business connected with the conduct of the war.

The Acting Secretary of the Navy having by order dated October 1, 1942 (7 F.R. 7979), waived compliance with the Navigation and Vessel Inspection Laws administered by the U. S. Coast Guard in the case of any vessel engaged in business connected with the conduct of the war to the extent and in the manner that the Commandant, U. S. Coast Guard, shall find to be necessary in the conduct of the war; and

The United States Maritime Commission, Washington, D. C., having indicated that the efficient prosecution of the war would be impeded by the application of certain vessel inspection regulations in 46 CFR, Part 55, as amended, which requires that manufacturers of flanges and fittings shall file with the Commandant an affidavit that their products furnished for use on vessels subject to the jurisdiction of the Coast Guard conform to all requirements of marine engineering regulations, that all flanges and fittings shall be made of materials conforming with the marine engineering regulations and material specifications, and that all flanges and fittings shall be legibly marked with the manufacturer's name or registered trade-mark and the primary service pressure rating;

Now, therefore, upon request of the United States Maritime Commission, I hereby find it to be necessary that for vessels engaged in business connected with the conduct of the war there be waived compliance with the vessel inspection regulations in 46 CFR, 55.19–3 (a) and (b) and (s) (1) to the extent necessary to permit the installation of flanges and fittings used in connection with Class II piping only, which are not covered by manufacturers' affidavits filed with the Commandant, which are not made of materials conforming with the marine engineering regulations and material specifications, and which are not marked in accordance with the marine engineering regulations, on U. S. Maritime Commission vessels of designs EC2–S–C1, Z–EC2–S–C5, EC2–S–AW1, VC2–S–AP2, C1–M–AV1 Mod., VC2–S–AP3, and VC2–S–AP5: *Provided*, That such flanges and fittings are found by Coast Guard inspectors to be suitable in all other respects. Dated: May 26, 1945 (10 F. R. 6314, 30 May 1945).

COMMANDANT, U. S. COAST GUARD

DELEGATION OF AUTHORITY TO EFFECTUATE WAIVERS

Amendment of order of Acting Secretary of the Navy dated October 1, 1942, conferring authority to effectuate waivers on Commandant, U. S. Coast Guard.

Pursuant to the authority of section 501 of the Second War Powers Act (Act of March 27, 1942, c. 199, Title V, sec. 501, 56 Stat. 180, 50 Appendix U.S.C., Sup. III, 635), and the act of December 20, 1944, c. 614, 58 Stat. 827, and deeming such action necessary in the conduct of the war, *It is ordered*, That the last paragraph of the order of the Acting Secretary of the Navy, dated 1 October 1942 (F.R. Doc. 42–9999; 7 F.R. 7979) is hereby amended so as to read as follows:

By virtue of the authority vested in me by the provisions of section 501 of the Second War Powers (Act of March 27, 1942, c. 199, Title V, sec. 501, 56 Stat. 180, 50 Appendix U.S.C., Supp. III, 635), and the act of December 20, 1944, c. 614, 58 Stat. 827, I hereby waive compliance with the navigation and vessel inspection laws and regulations administered by the United States Coast Guard, to such extent and in such manner and upon such terms as the Commandant, United States Coast Guard, shall find to be necessary in the conduct of the war, either upon his own initiative or upon the written recommendation of the head of any other Government agency.

Nothing herein shall impair the continuing effectiveness of waivers heretofore effectuated pursuant to the said order dated October 1, 1942, prior to its amendment by this order.

Dated: June 5, 1945 (10 F.R. 6848, 8 June 1945).

24-FOOT METALLIC LIFEBOATS (COAST GUARD BUILT-IN-TANK TYPE) MANUFACTURED BY GLOBE AMERICAN CORPORATION

Vessels engaged in business connected with the conduct of the war.

The Acting Secretary of the Navy having by order dated October 1, 1942 (7 F.R. 7979), waived compliance with the Navigation and Vessel Inspection Laws administered by the U. S. Coast Guard in the case of any vessel engaged in business connected with the conduct of the war to the extent and in the manner that the Commandant, U. S. Coast Guard, shall find to be necessary in the conduct of the war; and

The United States Maritime Commission, Washington, D. C., having indicated that the efficient prosecution of the war would be impeded by the application of certain vessel inspection regulations in 46 CFR, Parts 37, 59, and 60, which require that metallic lifeboats be constructed of steel having a minimum tensile strength of not less than 50,000 pounds per square inch and that the keel shall be in one length when such lifeboats are to be used on vessels engaged in business connected with the conduct of the war;

Now, therefore, upon request of the United States Maritime Commission, I hereby find it to be necessary in the conduct of the war that the vessel inspection regulations in 46 CFR 37.1–1, 37.2–1 to 37.2–19, inclusive, 59.13, 59.15, 60.10, and 60.12 be waived to the extent necessary to permit the use on board vessels connected with the conduct of the war of certain 24-foot metallic lifeboats, Numbers 6212 to 6292, inclusive, manufactured by the Globe American Corporation, Kokomo, Indiana, when lifeboats 6212 to 6292, inclusive, are made in certain parts with 14 gage U. S. S. steel sheets having a minimum thickness of .072 inch and an average tensile strength of 42,000 pounds per square inch, and having the keel made of two steel bars welded together with a double "V" full butt weld, as follows:

Boat Serial Numbers—6212 to 6292, inclusive.

Units Affected—81.

MATERIALS PERMITTED

(a) Nos. 1, 2, 3, and 4 sheets, bow and stern, port and starboard; 16 steel sheets per unit.

(b) Keels may be in 2 lengths when welded together in the center by qualified welders using a double "V" full butt weld and approved deep penetrating welding electrodes.

The changes in construction requirements for these lifeboats shall not alter any tests that may be given such lifeboats by the Coast Guard during inspection at the plant or on shipboard.

Dated June 11, 1945.

CAST-IRON FOUR-WAY VALVES IN PIPING TO HYDRAULIC STEERING GEAR

MARINE ENGINEERING AND MATERIAL SPECIFICATIONS

Vessels engaged in business connected with the conduct of the war.

The Acting Secretary of the Navy having by order dated October 1, 1942 (7 F. R. 7979), waived compliance with the Navigation and Vessel Inspection Laws administered by the U. S. Coast Guard in the case of any vessel engaged in business connected with the conduct of the war to the extent and in the manner that the Commandant, U. S. Coast Guard, shall find to be necessary in the conduct of the war; and

The United States Maritime Commission, Washington, D. C., having indicated that the efficient prosecution of the war would be impeded by the application of certain vessel inspection regulations in 46 CFR, Part 55, as amended, which prohibits the use of cast iron in the construction of valves and fittings for working pressures exceeding 125 pounds per square inch on vessels subject to the jurisdiction of the Coast Guard;

Now, therefore, upon request of the United States Maritime Commission, I hereby find it to be necessary in the conduct of the war that for vessels engaged in business connected with the conduct of the war there be waived compliance with the vessel inspection regulations in 46 CFR 55.19–3 (1) to the extent necessary to permit the installation of four-way cast iron valves in the piping to the hydraulic steering gear on U. S. Maritime Commission vessels of design C1–M–AV1.

Dated June 11, 1945 (10 F.R. 7057, 13 June 1945).

Equipment Approved by the Commandant

BUOYANT CUSHION FOR MOTORBOATS

15" x 15" x 2" Typha filled buoyant cushion (Specification dated 31 May 1945); Approval No. B–267, manufactured by Velvograph Co., 625 Broadway, New York 12, N. Y. (For use on motorboats of classes A, 1, and 2, not carrying passengers for hire for the duration of the National Emergency and 6 months thereafter.) (10 F. R. 7784, 26 June 1945.)

DISENGAGING APPARATUS FOR LIFEBOATS

Rottmer type releasing gear (Release Hook Assembly Dwg. No. 5–A 1A, dated 9 June 1945) (maximum working load of 10,200 pounds per hook), submitted by Kargard Boat & Engine Co., Marinette, Wis. (10 F. R. 7784 26 June 1945.)

LIFEBOATS

26' x 8' 3⅜" x 3' 7¼" metallic motor-propelled lifeboat (43-person peacetime capacity, 32-person wartime capacity) (Construction and Arrangement Dwg. No. 2985, dated 23 March 1945, revised 14 April 1945, and Specifications dated 3 May 1945), submitted by Welin Davit & Boat Corp., Perth Amboy, N. J. (10 F. R. 6790, 6 June 1945.)

20' x 6.5' x 2.6' metallic oar-propelled lifeboat (20-person peacetime capacity, 13-person wartime capacity) (General Arrangement Dwg. No. G–363, dated 14 May 1945), submitted by C. C. Galbraith & Son Inc., 99 Park Place, New York, N. Y. (10 F. R. 7151, 14 June 1945.)

14' x 5' x 2.2' metallic oar-propelled lifeboat (for use on inland waters only) (capacity, nine persons) (General Arrangement Dwg. No. G–359, dated 23 March 1945), submitted by C. C. Galbraith & Son Inc., 99 Park Place, New York, N. Y. (10 F. R. 7784, 26 June 1945.)

28' x 9' x 4' metallic oar-propelled lifeboat (59-person peacetime capacity) (General Arrangement Dwg. No. G–355, dated 5 March 1945), submitted by C. C. Galbraith & Son Inc., 99 Park Place, New York, N. Y. (10 F. R. 7784, 26 June 1945.)

LIFE PRESERVERS

Model No. 2 adult kapok life preserver (C. G. Dwg. No. F–49–6–1, and Specification dated 10 June 1944), Approval No. B–266, manufactured by Mebane-Royall Co., Mebane, N. C. (For general use.) (10 F. R. 6790, 6 June 1945.)

LIFE RAFTS

24-person improved type life raft, plywood construction with metal air tanks (General Arrangement Dwg. No. 8040–D–1, dated 24 March 1944), submitted by Colvin-Slocum Boats, Inc., Amesbury, Mass. (10 F. R. 6790, 6 June 1945)

24-person improved type life raft, plywood and metal construction filled with Styrofoam and cork (General Arrangement Dwg. No. LR–10, dated 15 May 1945, Alt. 1), constructed by Barry Manufacturing Co., 44 West 63d Street, New York, N. Y., for Leyde & Leyde, Falls Church, Va. (10 F. R. 7784, 26 June 1945.)

LUMINOUS MARKING FOR INTERIOR ACCOMMODATIONS

Luminous marking, designated Type C, submitted by Century Lighting Inc., 419 West 55th Street, New York 19, N. Y., attached with Mikah adhesive 45172, manufactured by National Starch Products Co., 270 Madison Avenue, New York 16, N. Y.

Luminous marking, designated Type C, without adhesive, submitted by Century Lighting Inc., 419 West 55th Street, New York 19, N. Y., attached with adhesive 16–211–J, manufactured by Casein Co., 350 Madison Avenue, New York 17, N. Y.

Luminous marking, designated Type C, without adhesive, submitted by Century Lighting Inc., 419 West 55th Street, New York 19, N. Y., attached with Mikah adhesive Q–2241, manufactured by National Starch Products Co., 270 Madison Avenue, New York 16, N. Y.

Luminous marking, designated Type C, without adhesive, submitted by Century Lighting Inc., 419 West 55th Street, New York 19, N. Y., attached with Mytee Bond adhesive 3750, manufactured by Slomon's Laboratories, 31–27 Thomson Avenue, Long Island City, N. Y.

Luminous marking, designated Lytape PL–15–20R, without adhesive, submitted by E. P. Lynch Co., 92 Weybossett Street, Providence 3, R. I., attached with Mikah adhesive 45172, manufactured by National Starch Products Co., 270 Madison Avenue, New York 16, N. Y.

Luminous marking, designated Everglow Type B, submitted by Hall Vesole Co., 2350 University Avenue, St. Paul, Minn., attached with B–60 adhesive, manufactured by Luminous Safety Products Co., 168 West 23d Street, New York 11, N. Y. (10 F. R. 7151, 14 June 1945.)

SKATES FOR LIFEBOATS

Laminated hardwood skates for lifeboats (General Arrangement Dwg. No. 4A, dated 20 April 1945, Alt. 1, dated 7 May 1945), submitted by Kargard Boat & Engine Co., Chicago, Illinois. (10 F. R. 6790, 6 June 1945.)

TELEPHONE SYSTEMS

Sound powered telephone equipment, 8 stations maximum, splashproof, Types II, III, IV, V, VI, VII, and VIII (Dwg. No. 70–516–2, dated 12 June 1942, Alt. 7, dated 23 February 1945); Sound powered telephone, 17 stations maximum, splashproof, Types II, III, IV, V, and VI (Dwg. No. 70–516–3, dated 28 November 1944, Alt. 0); Sound powered telephone, 8 stations maximum, watertight, Types B and P (Dwg. No. 70–517–3, Sheets 1 and 2, dated 20 April 1942, Alt. 7, dated 30 June, 1943), submitted by Henschel Corp., Amesbury, Mass. (10 F. R. 7233, 15 June 1945.)

AFFIDAVITS

It is required by the Marine Engineering regulations that manufacturers submit affidavits before they manufacture items of equipment in accordance with these regulations for use on vessels subject to inspection by the Coast Guard. These affidavits are kept on file at Coast Guard Headquarters and a list of approved manufacturers is published for the information of all parties concerned. The affidavits received and accepted during the period from May 16, 1945 to June 15, 1945, are as follows.

Alloy Steel Products Co., Linden, N. J., valves and fittings.

Briggs Clarifier Co., 1339 Wisconsin Avenue NW., Washington 7, D. C., filters.

Chiksan Co., Brea, Calif., swivel joints.

Dearborn Chemical Co., 310 S. Michigan Avenue, Chicago 4, Ill., fittings.

Judd Valve Co., 108 Green Street, Brooklyn, N. Y., valves.

Price-Pfister Mfg. Co., 2923–3011 Humboldt Street, Los Angeles 31, Calif., valves and fittings.

Triboro Brass Foundry, 234 Rider Avenue, The Bronx, N. Y., castings.

Wiljack Co., 1128 Mission Street, South Pasadena, Calif., valves.

ITEMS SUITABLE FOR MERCHANT MARINE USE

ACCEPTABLE FUSIBLE PLUGS

The Marine Engineering Regulations require that fusible plug manufacturers who desire to have their products approved for marine service shall submit samples for testing from each heat to the Commandant. If the sample fusible plugs pass the test satisfactorily, the manufacturer is notified and then the plugs may be used on vessels subject to inspection by the Coast Guard. If the sample fusible plugs submitted do not pass the test, a fee of $20 for each sample submitted is required and must be paid to the National Bureau of Standards, Washington, D. C. For the information of all parties concerned, a list of approved heats which have been tested and found acceptable during the period from May 16, 1945 to June 15, 1945 is as follows:

The Lunkenheimer Co., Cincinnati, Ohio, heat No. 214.

ELECTRICAL APPLIANCES

For the use of Coast Guard personnel in their work of inspecting merchant vessels ,the following items of electrical equipment have been examined. This list is not intended to be an all-inclusive list of miscellaneous electrical equipment; accordingly, items not included may also be satisfactory for marine use.

Manufacturer and description of equipment	Location apparatus may be used				Date of action
	a	b	c	d	
Conlan Electric Corp., Brooklyn, N. Y.:					
Door switch, waterproof, 15 amperes, 125 volts, catalog No. 1036, drawing No. 1036, sheets 1 to 12 inclusive (no alteration No.)	x	x	x	...	5–24–45
Deckhead fixture, type CG, waterproof, 60 watts maximum, catalog No. 1004, drawings Nos. 1004 and 1004–1, alteration O	x	x	x	...	6–13–45
Curtis Lighting, Inc., Chicago, Ill.:					
Signaling searchlight, 12 inches, Navy model 95001, Curtis model CL–42, drawings Nos. D–10180–1, alteration 2; D–10180–2, alteration 2; D–10180–3, alteration 3, and B–21293, alteration 1	x	x	x	...	5–30–45
Hammel-Dahl Co., Providence, R. I.:					
Tank level indicator panel, drawing No. 641, (no alteration No.)	x	x	...	...	5– 2–45
Tank level transmitter, drawing No. 636, (no alteration No.)	x	x	...	...	5– 2–45
Henschel Corp., Amesbury, Mass.:					
Shaft speed indicating equipment:					
Indicator, drawing No. 10–652–1, alteration 6	x	x	...	...	5–29–45
Indicator, drawing No. 10–1058, alteration 2	x	x	...	...	5–29–45
Indicator, with 8 figure counter, drawing No. 10–1002, alteration 2	x	x	...	...	5–29–45
Transmitter, with 8 figure counter, drawing No. 10–1001–1, alteration 2	x	x	...	...	5–29–45
Rudder angle indicating equipment:					
Indicator, drawing No. 10–1088, alteration 3	x	x	...	...	5–29–45
Indicator, drawing No. 10–1053, alteration 1	x	x	...	...	5–29–45
Transmitter, drawing No. 10–1051, alteration 1	x	x	...	...	5–29–45
Contact maker for low level fuel indicator, waterproof, drawing No. 60–128–2, alteration 2	x	x	x	...	5–29–45
Steering transmitter, 12 inches, pedestal mounted, drawing No. 10–1059, alteration 2	x	x	x	...	5–29–45
Steering control switch, waterproof, drawing No. 60–140, alteration 3	x	x	x	...	5–29–45
Whistle control panel, 115 volts, direct current, drawing No. 10–694–2, alteration 1	x	x	...	...	5–29–45
Leviton Manufacturing Co., Brooklyn, N. Y.: Mogul socket, bakelite, catalog No. 4052	...	...	...	...	5– 1–45
Murlin Manufacturing Co., Philadelphia, Pa.: Ceiling lighting fixture, nonwatertight, two 60-watt lamps maximum, fixture No. 957, alteration 1	...	x	...	...	6–14–45
The Norco Co., Los Angeles, Calif.: Cable clamp, drawing No. N. S. C. 101, alteration 0	x	x	x	...	6–14–45
The Oakford Co., Inc., New York, N. Y.:					
Lighting fixtures:					
Berth light, nonwatertight, 40 watts maximum, design No. 555, drawing No. 2179, alteration 1	x	...	...	...	5–31–45
Cargo light, portable, 100 watts per light maximum, designs Nos. 824–4 light and 825–5 light, drawing No. 2183, alteration 3	x	x	...	...	5–31–45
Gauge light, waterproof, 100 watts maximum, design No. 321, drawing No. 2237, alteration 0	x	x	x	...	5–31–45
Gauge light, waterproof, 100 watts maximum, design No. 320, drawing No. 2235, alteration 0	x	x	x	...	5–31–45
Cargo light, 300 watts maximum for use as a portable cargo light only and not to be used as an only source of illumination in a cargo space, design No. 830, drawing No. 354, sheets 1 and 2, alteration 5	x	x	...	...	6–14–45
Submarine Signal Co., Boston, Mass.: Fathometer, drawing No. 4032–B, sheets 1 to 4, inclusive (no alteration No.)	x	x	...	...	5– 2–45
The Vapor Recovery Systems Co., Compton, Calif.: Terminal tube, female, straight type, "VAREC" figure No. 1004, drawing No. D–741 (no alteration No.)	x	x	x	...	6– 6–45
Zinsmeyer Co., Los Angeles, Calif.:					
Navigation light panel, drawing No. MT–62, alteration of 3–6–45	x	x	...	...	5–22–45
Navigation light panel, drawing No. MT–59, sheets 1 and 2, alteration 0	x	x	...	...	5–28–45

a. Passenger and crew quarters and public spaces.
b. Machinery, cargo, and work spaces.
c. Open decks.
d. Pump rooms of tank vessels.

Merchant Marine Personnel Statistics

MERCHANT MARINE LICENSES ISSUED DURING MAY 1945

DECK OFFICERS

Region	Master										Chief mate										Second mate									
	Ocean		Coast-wise		Great Lakes		B. S. & L.		Rivers		Ocean		Coast-wise		Great Lakes		B. S. & L.		Rivers		Ocean		Coast-wise		Great Lakes		B. S. & L.		Rivers	
	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R
Atlantic coast	24	77	----	9	1	1	10	19	2	2	125	9	2	4	----	----	----	4	----	----	205	10	----	----	----	----	----	----	----	----
Gulf coast	2	17	----	2	----	----	4	1	3	6	29	4	----	----	----	----	1	----	----	----	37	2	----	----	----	----	----	----	----	----
Great Lakes and rivers	----	4	----	2	4	26	1	1	4	8	1	1	----	1	----	----	----	1	3	4	4	3	----	----	----	----	----	----	----	----
Pacific coast	14	42	5	----	----	1	3	8	----	----	62	4	3	----	----	----	8	5	----	----	99	8	----	----	----	----	----	----	----	----
Total	40	140	5	13	5	28	18	29	9	16	217	18	5	5	----	----	9	10	3	4	345	23	----	----	----	----	----	----	----	----

Region	Third mate										Pilots						Master mate				Total		
	Ocean		Coast-wise		Great Lakes		B. S. & L.		Rivers		Great Lakes		B. S. & L.		Rivers		Uninspected vessels, high seas				Original	Renewal	Grand total
	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R			
Atlantic coast	291	8	----	----	----	3	----	----	----	----	3	----	39	105	----	2	----	5	1	1	703	259	962
Gulf coast	15	1	----	----	----	----	----	----	----	----	----	----	21	30	----	----	----	----	----	----	112	63	175
Great Lakes and rivers	2	1	----	----	----	----	----	----	----	----	1	13	21	51	11	11	----	----	----	----	52	127	179
Pacific coast	104	4	----	----	----	----	----	----	----	----	----	----	18	51	----	----	----	7	----	----	316	130	446
Total	412	14	----	----	----	3	----	----	----	----	4	13	99	237	11	13	----	12	1	1	1,183	579	1,762

ENGINEER OFFICERS

Region	Chief engineer, steam				First assistant engineer, steam				Second assistant engineer, steam				Third assistant engineer, steam			
	Ocean		Inland		Ocean		Inland		Ocean		Inland		Ocean		Inland	
	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R
Atlantic coast	69	105	3	30	105	28	----	3	211	34	----	2	408	20	----	----
Gulf coast	18	15	2	3	28	6	1	2	41	4	----	----	26	5	----	----
Great Lakes and rivers	13	13	6	43	6	3	3	25	6	2	2	10	9	1	----	1
Pacific coast	37	46	----	10	75	12	----	3	109	8	----	1	149	9	----	----
Total	137	179	11	86	214	49	4	33	367	48	2	13	592	35	----	1

Region	Motor vessels								Uninspected vessels				Totals		
	Chief engineer		First assistant engineer		Second assistant engineer		Third assistant engineer		Chief engineer		Assistant engineer		Original	Renewal	Grand total
	O	R	O	R	O	R	O	R	O	R	O	R			
Atlantic coast	15	49	7	11	7	11	336	1	----	1	----	----	1,161	295	1,456
Gulf coast	4	7	7	3	2	1	7	----	----	----	----	----	136	46	182
Great Lakes and rivers	5	19	1	5	1	2	4	1	----	----	----	----	56	125	181
Pacific coast	12	21	3	9	11	----	107	4	----	4	1	----	504	127	631
Total	36	96	18	28	21	14	454	6	----	5	1	----	1,856	593	2,450

ORIGINAL SEAMEN'S DOCUMENTS ISSUED, MONTH OF MAY 1945

Region	Continuous discharge book	Certificate of identity	A. B., green, 3 years [1]	A. B., green, 9 months emergency [1]	A. B., blue, 18 months, 12 months [1]	A. B., blue, 6 months, emergency [2]	A. B., blue, 6 months, emergency [2]	Lifeboat, 12–24 months [4]	Lifeboat, 6–12 months emergency [3]	Q.M.E.D., 6 months	Q.M.E.D., emergency	Radio operators	Certificate of service	Tanker man	Staff officer	Total
Atlantic coast	52	5,550	69	550	32	45	1	1,740	0	274	1,026	313	4,856	7	208	14,723
Gulf coast	92	656	16	68	4	5	0	545	0	40	173	19	486	15	29	2,148
Pacific coast	19	3,513	26	235	64	12	0	864	0	200	588	22	2,702	3	109	8,357
Great Lakes and rivers	1,829	206	15	22	17	27	0	64	0	39	79	4	1,910	13	8	4,233
Total	1,992	9,925	126	875	117	89	1	3,213	0	553	1,866	358	9,954	38	354	29,461

[1] Unlimited.
[2] Great Lakes, lakes, bays, and sounds.
[3] Tugs and towboats and freight vessels under 500 tons (miscellaneous).
[4] 12 months deck or 24 months other departments.
[4] 6 months deck or 12 months other departments.

NOTE.—There were 326 Panamanian Employment Cards issued.

WAIVERS OF MANNING REQUIREMENTS FROM 1 MAY TO 31 MAY, 1945

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

Region	Number of vessels	Deck officers substituted for higher ratings	Engineer officers substituted for higher ratings	Able seamen substituted for deck officers	Ordinary seamen substituted for able seamen	Qualified members of engine department substituted for engineer officers	Wipers or coal passers substituted for qualified members of engine department	Wipers, coal passers or cadets substituted for engineer officers	Ordinary seamen or cadets substituted for deck officers	Total
Atlantic coast	687	206	397	16	1,163	42	143	8	19	1,994
Gulf coast	160	70	88	8	281	16	21	4	4	492
Pacific coast	253	193	238	28	1,142	89	231	18	22	1,961
Great Lakes	244	3	7	1	507		185			703
Total	1,344	472	730	53	3,093	147	580	30	45	5,150

CREW SHORTAGE REPORTS FROM 1 MAY TO 31 MAY, 1945

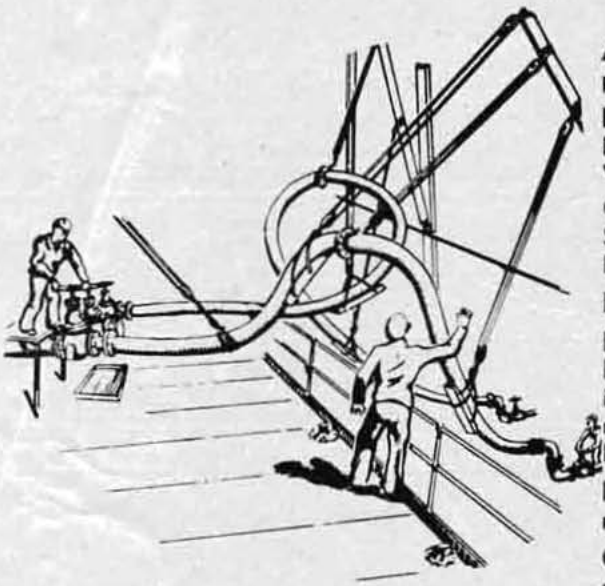
These Reports Submitted in Accordance With Navigation and Vessel Inspection Circular No. 34, Dated 1 May 1943

Region	Number of vessels	Ratings in which shortages occurred												Total
		Chief mate	Second mate	Third mate	Radio	Able seamen	Ordinary seamen	Chief engineer	First engineer	Second engineer	Third engineer	Qualified member engine department	Wiper or coal passer	
Atlantic coast	21			1		7	3		2		2	6	5	26
Gulf coast	13		1	1		4	2		1	1	1	7	5	23
Pacific coast	3			1							1		1	3
Great Lakes	102			4		64	20		3	1	7	73	33	205
Total	139		1	7		75	25		6	2	11	86	44	257

COST GUARD DISTRIBUTION
A, B, C, D, E.

TIPS FOR TANKERS

3 When loading cargo



A. See that all scuppers on the main deck are plugged.

B. SECURELY CLOSE AND LASH ALL PUMP ROOM SEA VALVES AND STERN DISCHARGE VALVES [if any].

C. Agree in advance with the Terminal Cargo Superintendent what the MAXIMUM LOADING RATE is to be.

D. Start loading at reduced loading rate.

E. Inspect cargo hose, setting of valves [especially STERN DISCHARGE VALVES if any], flow of oil into proper tanks and harbor surface near pump room sea valves, BEFORE INCREASING LOADING RATE.

F. Increase loading rate gradually to agreed maximum.

G. Make same inspection to assure satisfactory condition at maximum loading rate.

H. Make frequent inspection of harbor surface near pump room sea valves and in way of cargo tanks, between ship and dock and under stern.

I. WHILE LOADING:

[a] Do not permit other jobs or persons to unnecessarily divert attention away from the loading operation.

[b] Be certain that the most experienced man supervises the most important part of the loading operation, namely, REGULATION OF THE FLOW OF OIL.

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