

PROCEEDINGS OF THE MERCHANT MARINE COUNCIL UNITED STATES COAST GUARD

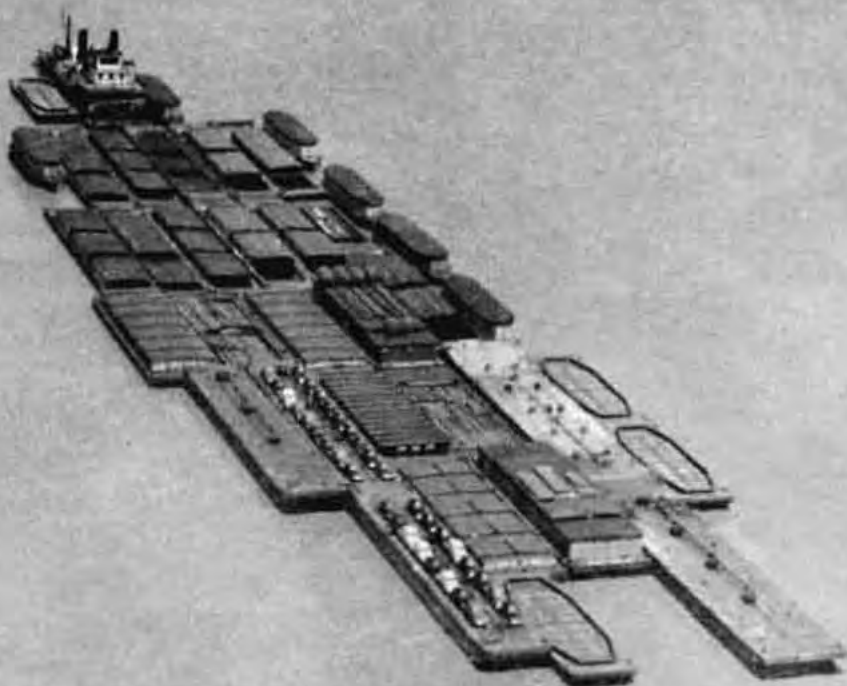


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Mention of source will be appreciated.

The Merchant Marine Council of the United States Coast Guard

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Captain JOSEPH A. KERRINS,
U. S. C. G., *Secretary*

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

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Cover Picture: Aerial view of the Steamer INDIANA in the vicinity of Sycamore Chute, Tenn., River Mile 735 AHP, bound downstream with 35 barges in tow; courtesy Department of the Army, Memphis District, Corps of Engineers.	
Distribution (SDL 38):	
A: a, b, c, d (2 ea.); remainder (1 ea.).	
B: c (14 ea.); g, 1 (5 ea.); f (4 ea.); e, h (3 ea.); d (2 ea.); remainder (1 ea.).	
C: All (1 ea.).	
D: All (1 ea.).	
E: m (1 ea.).	
List 141M.	

Shipping on the Western Rivers

Since early colonial days that great drainage system which serves an area covering more than half of the United States has played a most important role in the development of our country. The Mississippi, the Missouri, the Ohio Rivers, together with their scores of tributaries, comprise more than 12,000 miles of navigable waterways over which generation after generation has transported its raw materials and finished products destined to markets both at home and abroad.

Before the advent of steam, traffic was chiefly "one way"—downstream. Countless rafts, composed of logs and piled high with home-grown produce, were navigated at the mercy of the currents, incapable of making the return voyage upstream. The hazards of unmarked shoals, Indians, and river pirates were indeed great, but even then the rivers enjoyed a monopoly over and above all other avenues of transportation. In the early 1820's, human ingenuity and American enterprise overcame many obstacles and produced the packet steamboat.

Able, then, to provide two-way carriage of both freight and passengers, the great central basin entered upon a golden age of exploitation and prosperity. And so for a century the steam paddle boat ruled the rivers, but not without competition. For railway feeder lines branched out, became parallel and offered a more expeditious service to passengers and less bulky items of freight. Unable to

hold its own in the struggle for passenger ascendancy, the packet bowed, retrenched into excursion traffic. But in the movement of heavy bulk cargoes steamboats held fast to their advantage.

At the dawn of the twentieth century, a new type made its appearance on the western rivers—the pusher towboat. With this innovation, tows could be made up to meet increasing demands with resultant economy of operation. The age of the packet boat was now coming to a close. In the 1920's, a new mode of propulsion was brought into being with the perfection of Diesel power driving a screw propeller, providing reduced requirements of personnel, superior cruising radius, and savings in fuel costs. Steam and paddle wheel were forced to yield.

Significantly, too, as oil became important as a source of heat and power, shipment of bulk oil cargoes from the West and from producing areas in the South enhanced the utility of western rivers in the transportation of oil to the great metropolitan and industrial areas of the Middle West. So old man river is still the focus of transportation economy throughout the navigable portion of the country he drains. And his growing importance from the standpoint of shipping alone is reflected in river operations during 1948.

Even as late as 1948 the rule which steam once enjoyed asserted itself to remind the modern operator that its power is not yet dead. An example of

this occurred during the month of January when Nation-wide attention was focused on a New Orleans-St. Louis race between the steamer *Kokoda* and the Diesel vessel *Helena*, both operated by the Federal Barge Lines. The *Kokoda* was the winner by a large margin; however, unfavorable weather and river conditions combined to slow up the affair so that neither vessel made time in any way comparable with that later chalked up by the new Diesel towboat *Harry Truman* and its integrated tow. The victory of the *Kokoda*, nevertheless, was a matter of satisfaction to the proponents of steam power and reflected credit on her captain and crew.

During 1948, 65 new Diesel boats (vessels are "boats" in the vernacular of the riverman), ranging from 110- to 5,400-horsepower, were placed in service on the rivers. No new steamboats were placed in service. Twenty-one boats went out of service during 1948, five of which were Diesel and the remainder steam. The average horsepower of the new towboats now being placed in service is much greater than a few years ago. Now it is not unusual for a new towboat to be in the 3,000-horsepower range or higher.

The development of high-speed tows consisting of a towboat and two or matched barges, intended to operate at a much higher speed than the typical river tow, was continued. The experiments involve the use of lighter weight and higher speed Diesel engines, while the barges are of large size and of streamlined construction to lessen water resistance. Thus, coupling barges together with a towboat forms a carrier of uniform beam, virtually a single vessel, known as the *integrated tow*. The most sensational addition of the year was undoubtedly the *Harry Truman* with her integrated tow. The head of the towboat is square to fit against the square-headed integrated barges. She is 100 by 54 feet, powered by two General Motors Diesels of 1,600 horsepower each, and has many modern devices including radar, automatic steering, fathometer, radio telephone, and air-conditioned quarters. The integrated tow consists of five barges, each 166.5 by 54 by 11 feet; one medium barge, 83 by 54 by 11 feet; and three small barges, each 27 by 54 by 11 feet. The towboat, nine barges, and a bow piece fit together into an integrated tow 1,200 by 54 feet in size, capable of carrying about 12,000 tons.

In general, it may be said that the integrated tow with modern high-power well-equipped towboat more than triples the speed of ordinary tows with conventional barges. For



The *Harry Truman* on the lower Mississippi River pushing an integrated tow; courtesy Industrial Aerial Photos, New Orleans, La.

example, the *MV Harry Truman* (Federal Barge Lines), arrived in St. Louis after a 1,051-mile run from New Orleans with a 5,800-ton integrated tow in the remarkable time of 4 days and 19 hours. An upstream speed of 10 miles an hour (over the ground) was required to establish this record, and it was predicted that the *Truman* might make 18 miles an hour downstream.

Following the success of two articulated automobile carriers, the *Commercial Clipper* and *Commercial Express*, constructed for Commercial Barge Lines by the St. Louis Shipbuilding Corp., the Dravo Corp. was building a huge integrated tow for the Ashland Oil & Refining Co., which attains the imposing dimensions of 975 by 105 by 11 feet, and includes 15 barges carrying 140,000 barrels of crude oil; a larger cargo than previously moved by any oil tow. Such a carrier represents, in capacity, a train of 588 railway tank cars. The barges of this new fleet have their piping below hatches so that a deck cargo may be carried on the downstream trip.

While new towboats were being added to the Mississippi and tributaries, many operators undertook a program of re-engining which greatly increased available horsepower, often doubling the towing ability of existing craft. Diesel proponents pointed out that in few, if any, cases were the engines replaced because of failure or wear, but primarily to secure increased work from the same hull by taking advantage of the latest Diesel developments.

As a result of successful experiments in the application of radar to river navigation throughout the previous year, 1948 saw an appreciation by operators of its saving in time lost by reason of fog and other conditions

of reduced visibility. This regard was marked by the installation of radar on an estimated 60 vessels of the river fleet during the year—an indication that the use of electronics devices will increase.

There are many unique problems involving use of radar on rivers, among which are the following:

- Detection of bridge piers.
- Resolution of lock walls.
- Immediate interpretation of rate of movement changes in very restricted channels.
- Identification of the topography to assist in running crossings and locating channels.
- Excessive vibration on Diesel tows of high horsepower.

These problems have given rise to experiments in the use of radar beacons to mark bridge piers, reflector buoys to mark approaches to bridges and locks. Manufacturers are constantly improving their equipment and attempting to overcome other difficulties.

Construction of new barges continues, being apparently limited only by the supply of steel available for that purpose. New barge construction is characterized by adaptation to the specific class of cargo to be carried, with due regard for two-way utility.

Passenger traffic can no longer be considered an index to the importance of river transportation. But not all of the romance of yesteryear has left the river. The outstanding event of the year in the passenger field was the inaugural trip of the *Delta Queen* under the banner of the Greene Line Steamers. This marvelous steamer operated from Cincinnati to Cairo during the summer, and then went into the New Orleans trade until the

end of the season. Rivermen said that a quality of passenger service was made available that had never before been seen on the western rivers. The Greene Line opened a St. Louis office on April 8, and the steamer *Gordon C. Greene* operated out of that port for the most of the season. The *Della King*, sister-ship of the *Delta Queen*, was up for sale in 1948 and, on September 8, the high bid for her was \$24,000 offered by a Seattle bidder. Late in the season came news that the Hudson River Day Line was quitting business, and that its four fine passenger steamers were for sale. The year closed with speculation still rife as to whether one of these vessels might be brought around from New York and placed in excursion service at Cincinnati. A former LCI, now the excursion *MV Dolphin*, arrived in Pittsburgh and was scheduled to enter the passenger trade.

The only showboat on tour in 1948 was the *Majestic*, which was under the guidance of Dr. G. Harry Wright of Kent State University, Kent, Ohio. Dr. Wright is writing a book on showboats.

Statistics of tonnage carried during 1948 on the Mississippi River system are not yet available. However, the indications are that there was no change in the previous trend of increasing freight volume.

A kind Providence did not hand out this vast system of natural waterways on a silver platter without making man work for it. Throughout the history of the Mississippi and tributaries there have been periods of drought and flood with the river on the rampage in springtime and too dry for navigation over a great portion of its length in the summer. Winter icing has denied navigation to the upper reaches during the winter months.

To prolong the area and seasons of navigation, the Corps of Engineers, Department of the Army, has constructed a series of locks and dams above Cairo on the Ohio and above St. Louis on the Mississippi. (On the Tennessee River development has been vested in the TVA.) The engineers have linked the Mississippi with the Great Lakes via the Illinois River and made possible access to Chicago and St. Paul-Minneapolis by dredging a 9-foot channel. These devices are manifold. They permit a more uniform flow of water year-around, reduce the number and extent of floods and droughts, and increase soil conservation. They provide deep-water navigation and hydroelectric power.

But a river like the Mississippi is not easily tamed. Man is not yet able to overcome entirely its tremendous dynamic power nor correct its whim-

sical meandering course. Floods still have to be fought, their victims transported to places of safety. Skillful pilots and crews are required to avoid countless shoals; their burden minimized by careful marking of hazards to navigation. The Coast Guard's task is an active one designed to minimize hazards to navigation, to enforce safety rules, encourage safe operation and to save life and property.

With increased speed, power, and size of tows careful inspection of vessels and certification of their personnel must be carried out. Inspection services must be promptly rendered and at ports convenient to shipping. In the Second Coast Guard District, embracing generally all the navigable rivers above the confluence of the Arkansas and Mississippi, nine field Marine Inspection Offices have been established. These are located at Cairo, Cincinnati, Dubuque, Louisville, Memphis, Nashville, Pittsburgh, Point Pleasant, and St. Louis.

With the transition from steam to Diesel, the number of towboats subject to inspection is steadily decreasing; however, this decrease in propelled vessel inspection activity is offset by a material increase in the number of tank barges subject to inspection.

During 1948 the Marine Inspection Staff of the Second Coast Guard District conducted 941 annual inspections of vessels (including barges), 1,943 miscellaneous vessel inspections, and 150 inspections of new construction. 397 original licenses and 771 renewals were issued.

To aid river pilots in meeting increased demands of speed and volume, the Coast Guard maintains approximately 9,800 aids to navigation on the waterways within the boundaries of the Second Coast Guard District. Such aids have been established on the Mississippi, Missouri, Illinois, Ohio, Monongahela, Allegheny, Kanawha, Cumberland, and Tennessee Rivers to mark channels of nine or more feet depth, excepting the Missouri where project depth is 6 feet. These activities are carried out on a large geographical scale, spanning roughly an area from Pittsburgh to Sioux City and from Minneapolis to Baton Rouge.

To care for this far-flung system of aids, the Second District maintains a fleet of 11 cutters and 6 buoy boats with supporting depots located at St. Louis, Mo., Sewickley, Pa., Point Pleasant, W. Va., Owensboro, Ky., Paducah, Ky., Paris, Tenn., Sheffield, Ala., Chattanooga, Tenn., Vicksburg, Miss., Memphis, Tenn., Gasconade, Mo., Florence, Nebr., Dubuque, Iowa,

and Peoria, Ill. The main depot is located at St. Louis. Here materials are repaired and distributed to stock piles at minor depots until placed in service by tenders. Aids in need of repair are assembled for return to the main depot; except where work can be performed at the subdepot.

Keeping the Illinois Waterway open to navigation during the winter ice season has been a task of the Coast Guard, for which an annual appropriation is made available to the service. To accomplish this, Coast Guard ice plows are pushed by powerful chartered towboats under contract with the Federal Barge Lines, a Government agency. Such an operation is an economic necessity to the North Central States from a standpoint of petroleum shipments. Consequently, barge shipments must pass through the Illinois Waterway without interruption, and it has been kept open. The volume of shipping passing through the Illinois Waterway during the ice season of 1948 exceeded that of similar periods in previous years.

Flood relief is an important task of the Coast Guard, one requiring constant alertness during the flood season and a well-coordinated plan of action. Agencies with whom operations must be closely tied are American Red Cross, Corps of Engineers and other branches of the Armed Forces, United States Weather Bureau, and local governments. The role of the Coast Guard involves the actual rescue of persons, livestock, and other property. To effect prompt, efficient relief, the Coast Guard maintains in readiness 370 rescue boats and 105 outboard motors. This equipment is distributed throughout the district, with a reserve component held at St. Louis for prompt dispatch to whatever area requires reinforcing. Seventy-five of the boats are motor dinghies, M-1 type invasion craft, mounted on trailers for ready transport. Personnel are detailed to operate the boats wherever necessary. Flood relief expenses incurred by the Coast Guard are borne by the American Red Cross.

Not all traffic on the western rivers is commercial. Thousands of yachts and pleasure craft use the waters as source of healthful sport. To promote safe operation of these craft, the Coast Guard has sponsored an organization of boat owners known as the Coast Guard Auxiliary. They may be said to augment the regular Coast Guard. The Auxiliary is a group of patriotic citizens deeply concerned with the safety of small boats. In this regard, their program of courtesy inspection of pleasure craft and the education of the boating public in general by courses of lectures con-

tributes materially to the safety of pleasure boating on the rivers. They are of very material assistance in the patrol of the numerous regattas occurring throughout the district, which could not be satisfactorily patrolled by the existing regular Coast Guard without considerable reduction in the performance of assigned duties. In this important duty of promoting safety among the boating public, members of the Auxiliary donate their services without remuneration.

ACCIDENT PREVENTION FOR PASSENGER AND CARGO VESSELS

A safety handbook regarding accident prevention for passenger and cargo vessels has been issued by the United States Protection and Indemnity Agency, 116 John Street, New York 7, N. Y., for the use of shipowners and operators whose policies are written in companies represented by the Marine Office of America.

This booklet treats exhaustively of the subject as pertains to day to day

operations on passenger and cargo vessels. The material is based on actual accident experiences, causes, effects, and results in their operation. The aim of the booklet is to include such material of a practical nature as may assist masters and officers of passenger and cargo vessels to better understand the economic, mechanical, and human problem involved. Many years of experience in passenger and cargo vessel operations are contained in the suggestions for the prevention of accidents.

LESSONS FROM CASUALTIES

FAILURES OF LAMINATED PHENOLIC RESIN TYPE STERN TUBE BEARINGS

Further investigation of the recent failures in propeller and tube shaft liners of merchant vessels has produced findings which should be of interest to owners and operators of vessels fitted with stern tube bearings of the laminated phenolic resin type. The attendant problems in connection with the current tail shaft liner failures attributable to the use of laminated phenolic bearings were discussed at a recent meeting held under the auspices of the American Bureau of Shipping.

The characteristic type of failure associated with phenolic resin bearings indicated that cracks in the liners started at the outer surface and progressed inward. In almost all cases wherein such sleeve failures developed with the use of synthetic bearings there had been evidence of charred staves. It was suggested that the overheating of the shaft liner due to bearing friction was a principal cause of liner failure, possibly aggravated by sudden quenching of the liner when the water coolant was restored. Synthetic resin material manufacturers strongly agree that a positive supply of water should be pumped into the bearings. The charring of the staves was sufficient evidence that the bearings were obtaining no water or were steaming-out to an extent indicating inadequacy of the water supply. It was agreed that when water coolant is used it is essential to have a positive circulation of water through the stern tube. In order to accomplish this the water service to the stern tube should be used at all times when the shaft is turning over. It was felt that a small trickle of water inboard through the stern gland, which is customary practice with lignum vitae bearings, is not enough to prevent overheating of the synthetic bearings.

An experiment was cited in which water had been supplied at one end of

a test bearing only, with the thought that it would be carried in and would circulate to the far end. A circulating flow was not established and the bearing overheated at the far end. In order to overcome the head of water on the stern tube a pressure of at least 10 to 12 pounds per square inch should be maintained. A "rule of thumb" was mentioned by one bearing manufacturer as a measure of adequate water supply, in terms of a net pressure of 5 pounds per square inch in a line one-twelfth of the shaft diameter feeding water into the lantern ring just outboard of the packing gland.

It was pointed out in connection with one group of liner failures that the bearings had been packed with a hard grease not soluble in water, which choked the water grooves and was packed nearly solid in the stern tube recess between the inboard and outboard bearings. The bearings were not arranged for grease gunning and after the lubricating properties of the grease were gone the hard metallic soap remained to prevent any possibility of water circulation. Where grease is used during installation of the tail shaft it was recommended that the grease be of the water soluble type.

It was the opinion of all those present at the meeting that conformance with the following recommendations should greatly reduce liner failures of the characteristic type associated with the use of laminated phenolic resin bearings:

(1) It is important during operation to provide a positive and adequate supply of water at all times when phenolic type bearings are used.

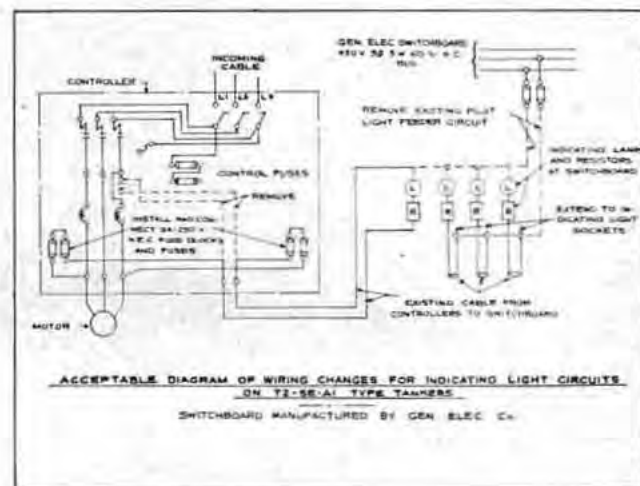
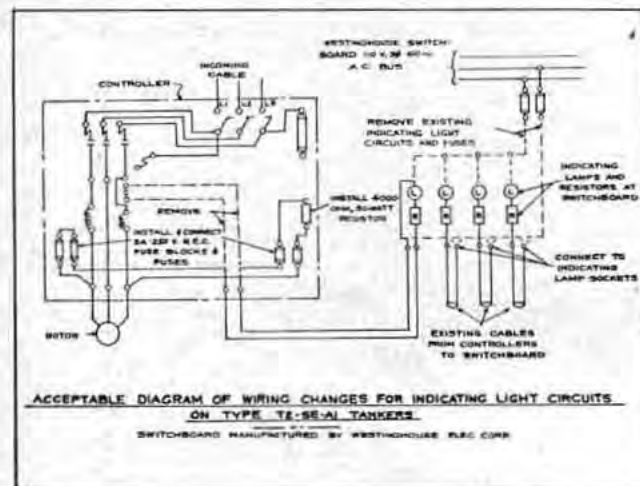
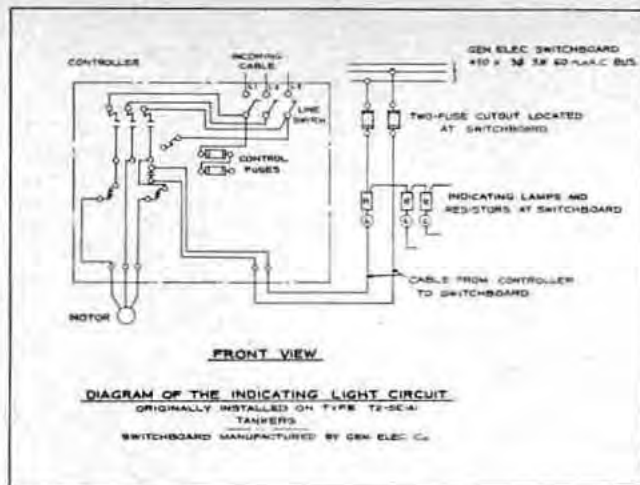
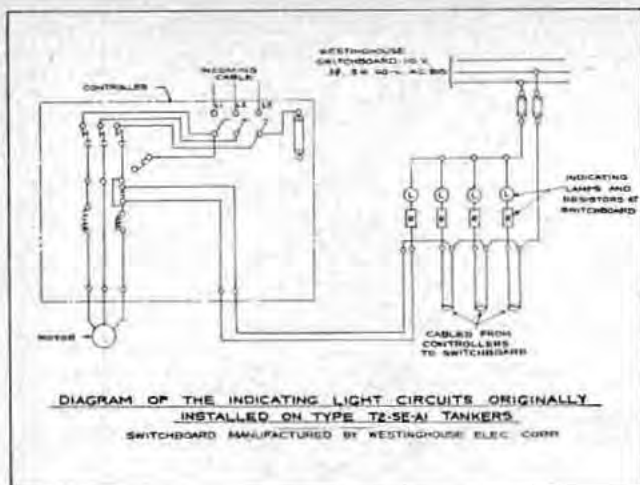
(2) Water grooves should be of sufficient width and depth to insure an adequate supply of water to the bottom of the bearing under the conditions of maximum allowable wear-down.

(3) Bearings should be installed in accordance with the specific instructions furnished by each manufacturer with the material for each installation.

ACCEPTABLE REARRANGEMENTS OF INDICATING LIGHT CIRCUITS ON CONTROL PANELS

Navigation and Vessel Inspection Circular No. 10-48, February 1949 "Proceedings," page 53, and "Electrocution on Shipboard" under Lessons from Casualties in the same issue gave notice of a hazard existing on T-2 tankers in that there are indicating lights on the switchboard whose circuits are completed through auxiliary contacts within the respective motor controller. The opening of a line switch within the controller fitted with such an auxiliary contact, or opening the disconnecting device in the power circuit on the switchboard, will not completely deenergize the motor controller as might reasonably be supposed. Accordingly, in this case there is a 440-volt potential across the contacts on the panel unless power has been removed therefrom by both opening the circuit breaker controlling power to the equipment and by disconnecting the supply to the indicating light circuit. This hazard also exists on certain other types of vessels.

Navigation and Vessel Inspection Circular No. 10-48 recommended that the indicating circuits be rearranged electrically to eliminate this hazard. The Marine Department of the Standard Oil Co. of New Jersey has submitted two such wiring rearrangements, one each for General Electric and Westinghouse switchboards. These rearrangements are acceptable and are shown in the following diagrams for the information of others concerned:



APPENDIX

Navigation and Vessel Inspection Circular No. 6-49

UNITED STATES COAST GUARD,
Washington 25, D. C., May 2, 1949.

FAULTY PISTOL PROJECTED PARACHUTE RED FLARE DISTRESS SIGNALS MANUFACTURED UNDER COAST GUARD APPROVAL NO. 160.024/5/0 BY SIGNAL MANUFACTURING CO., LOS ANGELES, CALIF.

1. During a regular annual inspection at Baltimore, Md., a number of pistol projected parachute red flare distress signals manufactured by the Signal Manufacturing Co., Los

Angeles, Calif., for use as life-saving equipment on merchant vessels were found to be faulty since the flares would not fit the signal pistol with which they were to be used. A study of the distress signals manufactured under Approval No. 160.024/5/0 indicated that the manufacturing methods used did not provide uniform signals and that many of them could not fit into a signal pistol with a chamber board to the minimum diameters allowed by Coast Guard specifications.

2. Corrective measures have been taken by the Coast Guard and the manufacturer to insure conformity with the specification in future production of parachute red flare distress signals. The Signal Manufacturing Co. is having all distributors check the supplies of signals on hand and re-

questing the return of all those found to be faulty.

3. In order to insure that the parachute red flare distress signals manufactured under Approval No. 160.024/5/0 by the Signal Manufacturing Co., which may be on board merchant vessels under the jurisdiction of the Coast Guard, will fit the signal pistols, it is requested that all persons having any of these signals try them in the signal pistol with which they are to be used. If the distress signals do not fit the signal pistol, then they should be returned immediately to a dealer or distributor. The manufacturer will replace all defective distress signals returned by distributors.

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

Navigation and Vessel Inspection Circular No. 7-49

UNITED STATES COAST GUARD,
Washington 25, D. C., May 12, 1949.

ELIMINATION OF FIRE HAZARDS ON EXCURSION VESSELS

1. The elimination of fire hazards and the use of proper safety measures for emergencies are considered of utmost importance in the interest of safety of life. The indoctrination of officers and crews of excursion vessels in the essentials of safe operation as well as constant vigilance by such officers and crews are necessary to maintain the excellent record of safety already established.

2. Particular attention is directed to the requirements for fire and boat drills and sanitary inspections of crew and passenger quarters. The fire drills shall be carried out as though an emergency exists and by directing the fire-fighting crews to a different part of the vessel at each drill.

3. To eliminate fire hazards it is recommended that the following precautions be taken:

(a) Maintain a thorough daily inspection of the vessel by master or officers and remove every potential fire hazard.

(b) Keep stocks of inflammable novelties for sale to passengers to a minimum and where possible keep only such quantities on board which can be sold within a day or two.

(c) Dispose of excelsior or other inflammable packing material immediately after the package or container is first opened.

(d) Sweep out daily the storerooms and lockers used for stowage of novelties.

(e) Prohibit smoking in storerooms or lockers used for stowage of novelties.

(f) Keep decks clear under and behind all objects to prevent accumulation of waste paper, rags, packing materials, and other fire hazards.

(g) Use trash containers of metal construction with tight sides and bottoms and self-closing covers in toilet rooms, concession stands, passenger spaces, and crew accommodations.

(h) Use metal containers with self-closing covers for all cleaning rags, whether used or unused.

(i) Hang up all mops and swabs, handles down.

(j) Keep all clothing in crew quarters in lockers or properly hung up.

(k) Keep soiled and greasy clothing from accumulating in the bottom of lockers or under and behind bunks.

4. By constantly eliminating potential fire hazards many dangerous fires can be prevented. As past experience has shown, the difference between a small fire and a major disaster may be only a matter of seconds—WHEN THE FIRE STARTS.

5. Navigation and Vessel Inspection Circular No. 3-47 is hereby canceled.

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

Equipment Approved by the Commandant

[CGFR 49-15]

By virtue of the authority vested in me as Commandant, United States Coast Guard, by R. S. 4405, and 4491, as amended; 46 U. S. C. 375, 489; and section 101 of Reorganization Plan No. 3 of 1946 (11 F. R. 7875, 60 Stat. 1097, 46 U. S. C. 1), as well as the additional authorities cited with specific items below, the following approvals of equipment are prescribed and shall be effective for a period of five years from date of publication in the Federal Register unless sooner canceled or suspended by proper authority:

BUOYANT CUSHIONS, NON-STANDARD

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

Approval No. 160.008/408/0, 15" x 15" x 2" rectangular buoyant cushion, 20 oz. kapok, flexible plastic film cover and straps, stitched seams, Dwg. No. 4-4-49, manufactured by the Atlantic-Pacific Manufacturing Corp., 124 Atlantic Avenue, Brooklyn 2, N. Y. (54 Stat. 164, 166; 46 U. S. C. 526e, 526p; 46 CFR 25.4-1, 160.008).

BUOYS, LIFE, RING, CORK OR Balsa WOOD

Approval No. 160.009/31/0, 30-inch cork ring life buoy, U. S. C. G. Specification 160.009, manufactured by C. J. Hendry Co., 27 Main Street, San Francisco, Calif. (R. S. 4417a, 4426, 4482, 4488, 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, 391a, 396, 404, 475, 481, 526e, 526p, 1333, 50 U. S. C. 1275; 46 CFR 25.4-1, 33.7-1, 59.56, 60.49, 76.53, 94.53, 113.46, 160.009).

SEA ANCHORS, LIFEROAT

Approval No. 160.019/9/0, Type B Sea Anchor, U. S. C. G. Dwg. No. MMI-562 and specification dated November 1, 1943, rev. August 24, 1944, manufactured by McIlwaine Canvas Co., 247 West Sixth Street, San Pedro, Calif. (R. S. 4417a, 4426, 4488, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended;

46 U. S. C. 367, 391a, 404, 481, 1333, 50 U. S. C. 1275; 46 CFR 33.3-1, 33.3-2, 59.11, 76.14).

BOILERS, HEATING

Approval No. 162.003/8/1, Model Crane 20 cast iron heating boiler, maximum working pressure 15 pounds per square inch, manufactured by Crane Co., 836 South Michigan Avenue, Chicago 5, Ill. (Supersedes Approval No. 162.003/8/0, published in Federal Register July 31, 1947.)

Approval No. 162.003/9/1, Model Crane 16 cast iron heating boiler, maximum working pressure 15 pounds per square inch, manufactured by Crane Co., 836 South Michigan Avenue, Chicago 5, Ill. (Supersedes Approval No. 162.003/9/0, published in Federal Register July 31, 1947.)

Approval No. 162.003/11/1, Model Crane 14 cast iron heating boiler, maximum working pressure 15 pounds per square inch, manufactured by Crane Co., 836 South Michigan Avenue, Chicago 5, Ill. (Supersedes Approval No. 162.003/11/0, published in Federal Register July 31, 1947. (R. S. 4417a, 4418, 4426, 4433, 4434, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 391a, 392, 404, 411, 412, 1333, 50 U. S. C. 1275; 46 CFR, Part 52.)

FIRE EXTINGUISHERS, PORTABLE, HAND, CARBON-TETRACHLORIDE TYPE

Approval No. 162.004/32/1, Phister No. 1/2, 2-quart carbon tetrachloride hand portable fire extinguisher, assembly Dwg. No. 195, dated March 31, 1948; name plate Dwg. No. BB-1/2-NY, Rev. March 15, 1948, manufactured by The Phister Manufacturing Co., 621-627 East Pearl Street, Cincinnati, Ohio. (Supersedes Approval No. 162.004/32/0, published in the Federal Register of July 31, 1947.) (R. S. 4417a, 4426, 4479, 4492, 49 Stat. 1544, 54 Stat. 165, 166, 346, 1028, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 391a, 404, 463a, 472, 490, 526e, 526p, 1333, 50 U. S. C. 1275; 46 CFR 25.5-1, 26.3-1, 27.3-1, 34.5-1, 61.13, 77.13, 95.13, 114.15.)

VALVES, PRESSURE VACUUM RELIEF

Approval No. 162.017/61/0, Butterworth type 1H-1 pressure vacuum relief valve, single unit, enclosed pattern, spring loaded, fitted with spring lifting lever, bronze body, Dwg. No. PV 206, dated February 16, 1949, approved for 3", 4", 5", and 6" inlet sizes, for use with inflammable and combustible liquids of Grade A or lower in closed venting system, manufactured by Butterworth System, Inc., Bayonne, N. J. (R. S. 4417a, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 391a, 50 U. S. C. 1275; 46 CFR 32.7-4.)

**INDICATORS, BOILER WATER LEVEL,
SECONDARY TYPE**

Approval Nos. 162.025/9/1, 162.025/10/1, and 162.025/11/1, Model Nos. E600, E600A and E600B, respectively; Dwg. No. B-6612; Reliance Eye-Hye secondary boiler water gauge, remote reading level indicator; manufactured by The Reliance Gauge Column Co., 5902 Carnegie Avenue, Cleveland, Ohio. (Supersedes Approval Nos. 162.025/9/0, 162.025/10/0, and 162.025/11/0, published in Federal Register of July 31, 1947.)

Approval Nos. 162.025/12/1, 162.025/13/1, and 162.025/14/1, Model Nos. E601, E601A and E601B, respectively; Dwg. No. B-6613; Reliance Eye-Hye secondary boiler water gauge, remote reading level indicator; manufactured by The Reliance Gauge Column Co., 5902 Carnegie Avenue, Cleveland, Ohio. (Supersedes Approval Nos. 162.025/12/0, 162.025/13/0, and 162.025/14/0, published in Federal Register of July 31, 1947.)

Approval Nos. 162.025/15/1, 162.025/16/1, 162.025/17/1, 162.025/18/1, Model Nos. E400, E400A, E400B and E400C, respectively; Dwg. No. D-6610; Reliance Eye-Hye secondary boiler water gauge, remote reading level indicator; manufactured by The Reliance Gauge Column Co., 5902 Carnegie Avenue, Cleveland, Ohio. (Supersedes Approval Nos. 162.025/15/0, 162.025/16/0, 162.025/17/0, 162.025/18/0, published in Federal Register of July 31, 1947.)

Approval Nos. 162.025/19/1, 162.025/20/1, 162.025/21/1, 162.025/22/1, Model Nos. E401, E401A, E401B and E401C, respectively; Dwg. No. B-6611; Reliance Eye-Hye secondary boiler water gauge, remote reading level indicator; manufactured by The Reliance Gauge Column Co., 5902 Carnegie Avenue, Cleveland, Ohio. (Supersedes Approval Nos. 162.025/19/0, 162.025/20/0, 162.025/21/0, 162.025/22/0, published in Federal Register of July 31, 1947.)

Approvals Nos. 162.025/23/1 and 162.025/24/1, Model Nos. E900 and E900A, respectively; Dwg. No. B-6614; Reliance Eye-Hye secondary boiler water gauge, remote reading level indicator, manufactured by The Reliance Gauge Column Co., 5902 Carnegie Avenue, Cleveland, Ohio. (Supersedes Approval Nos. 162.025/23/0 and 162.025/24/0, published in Federal Register of July 31, 1947.)

Approval Nos. 162.025/25/1 and 162.025/26/1, Model Nos. E901 and E901A, respectively; Dwg. No. B-6615; Reliance Eye-Hye secondary boiler water gauge, remote reading level indicator; manufactured by The Reliance Gauge Column Co., 5902 Carnegie Avenue, Cleveland, Ohio. (Supersedes Approval Nos. 162.025/25/0 and 162.025/26/0, published in Federal Register of July 31, 1947.)

Approval No. 162.025/33/1, Model No. E-2000; Dwg. No. B-6618; Reliance Eye-Hye secondary boiler water gauge, remote reading level indicator; manufactured by The Reliance Gauge Column Co., 5902 Carnegie Avenue, Cleveland, Ohio. (Supersedes Approval No. 162.025/33/0, published in Federal Register March 25, 1948.)

Approval No. 162.025/35/1, Model No. E-2001; Dwg. No. B-6619; Reliance Eye-Hye secondary boiler water gauge, remote reading level indicator; manufactured by The Reliance Gauge Column Co., 5902 Carnegie Avenue, Cleveland, Ohio. (Supersedes Approval No. 162.025/35/0, published in Federal Register March 25, 1948.)

Approval No. 162.025/36/0, Model No. E-1500; Dwg. No. B-6616; Reliance Eye-Hye secondary boiler water gauge, remote reading level indicator; manufactured by The Reliance Gauge Column Co., 5902 Carnegie Avenue, Cleveland, Ohio.

Approval No. 162.025/37/0, Model No. E-1501; Dwg. No. B-6617; Reliance Eye-Hye secondary boiler water gauge, remote reading level indicator; manufactured by The Reliance Gauge Column Co., 5902 Carnegie Avenue, Cleveland, Ohio. (R. S. 4417a, 4418, 4426, 4433, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 391a, 392, 404, 411, 1333, 50 U. S. C. 1275; 46 CFR, Part 52.)

**FIRE EXTINGUISHING SYSTEMS,
SEMI-PORTABLE**

Semi-portable foam fire extinguishing system for cargo spaces of tank vessels, Pyrene Air-Foam hose application type, one unit consisting of Pyrene foam dual proportioning tank, Model PPT10D-3 (Assembly Dwg. No. D-9966, Rev. January 9, 1946, Name Plate Dwg. No. B-15673, dated December 1, 1948, indicating that tank is to be filled with Pyrene Foam Compound PPR5H or PPR5L), with Pyrene foam playpipe, Model PP35SF, (Assembly Dwg. No. C-9929, dated May 6, 1944), approved for a superficial liquid area not exceeding 600 square feet; multiple units may be used to protect greater areas in the ratio of one unit for each 600 square feet or fraction thereof to be protected, manufactured by Pyrene Manufacturing Co., 560 Belmont Avenue, Newark 8, N. J. (R. S. 4417a, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 391a, 50 U. S. C. 1275; 46 CFR 34.3-2.)

Dated: April 26, 1949.

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

[F. R. Doc. 49-3402; Filed, Apr. 29, 1949;
8:54 a. m., Apr. 30, 1949, 14 F. R. 2149]

[CGFR 49-19]

By virtue of the authority vested in me as Commandant, United States Coast Guard, by R. S. 4405 and 4491, as amended; 46 U. S. C. 375, 489; and section 101 of Reorganization Plan No. 3 of 1946 (11 F. R. 7875, 60 Stat. 1097, 46 U. S. C. 1), as well as the additional authorities cited with specific items below, the following approvals of equipment are prescribed and shall be effective for a period of five years from date of publication in the Federal Register unless sooner canceled or suspended by proper authority:

BUOYANT CUSHIONS, KAPOK, STANDARD

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

Approval No. 160.007/80/0, standard kapok buoyant cushions, U. S. C. G. Specification 160.007, manufactured by J. and C. Specialties, Sheboygan, Wis. (54 Stat. 164, 166; 46 U. S. C. 526e, 526p; 46 CFR 25.4-1, 160.007).

BUOYANT CUSHIONS, NON-STANDARD

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

Approval No. 160.008/410/0, 15" x 15" x 2", rectangular buoyant cushion, 40 oz. fibrous glass, Dwg. dated March 28, 1949, and specifications dated April 13, 1949, manufactured by Resist-All Products, Inc., 828 St. Charles Avenue, New Orleans, La. (54 Stat. 164, 166; 46 U. S. C. 526e, 526p; 46 CFR 25.4-1, 160.008).

SIGNALS, DISTRESS, FLARE, RED, HAND

Approval No. 160.021/2/0, hand red flare distress signal, 5,000 candlepower, 1 minute burning time, identified by Kilgore Manufacturing Co.'s general arrangement Dwg. No. CXC-115, dated April 18, 1949, and Detail Dwg. No. CXC-116, dated April 16, 1949, submitted by Coston Supply Co., Inc., 31 Water Street, New York, N. Y.

Approval No. 160.021/3/0, hand red flare distress signal, 5,000 candlepower, 1 minute burning time, identified by general arrangement Dwg. No. CXC-115, dated April 18, 1949, and detail Dwg. No. CXC-116, dated April 16, 1949, submitted by International Flare Signal Division of Kilgore Manufacturing Co., Westerville, Ohio. (R. S. 4417a, 4426, 4488, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 391a, 404, 481, 1333, 50 U. S. C. 1275; 46 CFR 160.021).

**SIGNALS, DISTRESS, SMOKE, ORANGE,
FLOATING**

Approval No. 160.022/2/0, Floating orange smoke distress signal, Model

OS-5, identified by Dwg. Nos. OS-5-1, OS-5-2, and specifications Nos. OS-5-3, OS-5-4, and OS-5-5, all dated August 18, 1948, submitted by Superior Signal Co., South River, N. J. (R. S. 4417a, 4426, 4488, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 391a, 404, 481, 1333, 50 U. S. C. 1275; 46 CFR 160.022).

SIGNALS, DISTRESS, SMOKE, ORANGE, HAND

Approval No. 160.037/1/0, hand held orange smoke distress signal, identified by Kilgore Manufacturing Co.'s general arrangement Dwg. No. CXC-117, dated April 18, 1949, and detail Dwg. No. CXC-118, dated April 16, 1949, submitted by Coston Supply Co., Inc., 31 Water Street, New York, N. Y.

Approval No. 160.037/2/0, hand held orange smoke distress signal, identified by general arrangement Dwg. No. CXC-117, dated April 18, 1949, and detail Dwg. No. CXC-118, dated April 16, 1949, submitted by International Flare Signal Division of Kilgore Manufacturing Co., Westerville, Ohio. (R. S. 4417a, 4426, 4488, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 391a, 404, 481, 1333, 50 U. S. C. 1275; 46 CFR 160.023).

LIFEBOATS

Approval No. 160.035/222/0, 24.0' x 8.0' x 3.73' steel motor-propelled lifeboat without radio cabin, 37-person capacity, identified by construction and arrangement Dwg. No. 24-1B dated May 5, 1948, manufactured by Marine Safety Equipment Corp., Point Pleasant, N. J.

Approval No. 160.035/228/0, 30' x 10' x 4' steel motor-propelled lifeboat without radio cabin, 68-person capacity, identified by construction and arrangement Dwg. No. G-412 dated March 2, 1949, manufactured by C. C. Galbraith and Son, Inc., 99 Park Place, New York, N. Y.

Approval No. 160.035/235/0, 30.0' x 10.0' x 4.13' steel hand-propelled lifeboat, 84-person capacity, identified by construction and arrangement Dwg. No. 3202, dated May 25, 1948, submitted by the Welin Davit and Boat Division of Continental Copper and Steel Industries, Inc., Perth Amboy, N. J.

Approval No. 160.035/240/0, 16.0' x 5.75' x 2.38' steel oar-propelled lifeboat, 13-person capacity, identified by construction and arrangement Dwg. No. 3265 dated January 21, 1949, submitted by the Welin Davit and Boat Division of Continental Copper and Steel Industries, Inc., Perth Amboy, N. J. (R. S. 4417a, 4426, 4481, 4488, 4492, 35 Stat. 428, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244,

as amended; 46 U. S. C. 367, 391a, 396, 404, 474, 481, 490, 1333, 50 U. S. C. 1275; 46 CFR 37.1-1, 59.13, 76.16, 94.15, 113.10).

VALVES, SAFETY RELIEF, LIQUEFIED COMPRESSED GAS

Approval No. 162.018/24/0, Consolidated Type 1661, spring loaded safety relief valve, internal type, for liquefied compressed gas service, valve disc seat fitted with "O" ring gasket; Dwg. No. CM-4-1661, 300 pounds per square inch pressure rating, approved for a maximum free discharge area of 2.34 square inches, manufactured by Manning, Maxwell & Moore, Inc., 2415 East Thirteenth Place, Tulsa 4, Okla. (R. S. 4417a, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 391a, 50 U. S. C. 1275; 46 CFR Part 38).

INCOMBUSTIBLE MATERIALS

Approval No. 164.009/18/0, "J-M 85% Magnesia," magnesia block type incombustible material identical to that described in National Bureau of Standards' letter File 10.2, dated December 6, 1948, manufactured by Johns-Manville Sales Corp., 22 East Fortieth Street, New York 16, N. Y. (R. S. 4417a, 4426, 49 Stat. 1384, 1544, 54 Stat. 1028, sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 369, 391a, 404, 463a, 50 U. S. C. 1275; 46 CFR Part 144.)

Dated: May 11, 1949.

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

[F. R. Doc. 49-3914; Filed, May 16, 1949;
8:48 a. m., May 17, 1949, 14 F. R. 2590]

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 April 15, 1949, to May 15, 1949, is as follows:

M. Greenberg's Sons, 765 Folsom St., San Francisco 7, Calif. Heat No. 162.

The Lunkenheimer Co., P. O. Box 360, Annex Station, Cincinnati 14, Ohio. Heat No. 335.

AFFIDAVITS

The following affidavits were accepted during the period from April 15 to May 15, 1949:

Great Lakes Engineering Works, River Rouge 18, Mich. Valves.

The Lamson & Sessions Co., 1971 West 85th St., Cleveland 2, Ohio. Bolting.

Republic Steel Corp., 1970 Carter Road, Cleveland 13, Ohio. Bolting.

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.

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	
Associated Products, Inc., Toledo, Ohio: Electric range (#1 top) and broiler, model 621-M, 230 v. A. C., dwg. No. 621-370-2, Rev. 0	x	x			3/30/49
Electric range (#1 top) and hi-shelf, model 621-M, 230-v. A. C., dwg. No. 621-371-2, Rev. 0	x	x			3/30/49
Electric oven, model 621-02-M, 230-v. A. C., dwg. No. 621-372-1, Rev. 0	x	x			3/30/49
Wallbox range and oven switchbox, model 621, dwg. No. 621-358 T.T. Rev. A	x	x			3/30/49
The Colson-Merriam Co., Wash. 6, D. C.: Wilmot Castle Co. portable operating room spotlight, explosion-proof, dwg. No. L-850, Rev. 0, Underwriters' Laboratories, Inc., guide card No. 120110.3, file E14602A				x	4/27/49
Diamond Power Specialty Corp., Detroit, Mich.: Diamond smoke indicator, watertight, dwg. No. C-1776-43, AIL 0	x	x	x		4/21/49

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 L. C. Doane Co., Essex, Conn.: Desk light, nonwatertight, 1 8-watt fluorescent lamp, 125-v. 60-cycle A. C., dwg. No. 60, Alt. 1.	x				3/25/40
Edwards & Co., Inc., Norwalk, Conn.: Pushbutton, interior communication, nonwatertight, normally open contact, momentary contact, 1-a, 24-v., D. C.; 1.5-a, 24-v., A. C.; 2-a, 12-v., A. C. or D. C.; cat. No. 620, dwg. No. SK-7331, issue 3.	x				4/1/40
Mr. Eugene Fraser, Brooklyn, N. Y.: Terminal tube, dual grip, dwg. No. E-F-3, Rev. 0.	x	x	x		5/20/40
General Electric Co., Washington, D. C.: Floodlight, type L38, watertight, 1 200-watt lamp max., dwg. No. T-9457364, Rev. 2.	x	x	x		4/7/40
Floodlight, type L84, watertight, 1 500-watt lamp max., dwg. No. T-9457839, Rev. 0.	x	x	x		4/7/40
Henschel Corp., Amesbury, Mass.: Electric whistle timer, 115-v., 60 cycles A. C., or 115-v. D. C., dwg. No. 40-059, Alt. 1.	x	x			4/12/40
Electric whistle reset station, watertight, dwg. No. 60-209, Alt. 0.	x	x	x		4/12/40
Electric whistle switch, types A and B, watertight, dwg. No. 60-210, Alt. 1.	x	x	x		5/25/40
Running light panel, nonautomatic, 5-circuit, with current available light, 115-v., D. C.	x	x			5/ 3/40
Steering gear alarm panel, 115-v., A. C. (for 230-v. A. C. steering gear motors) dwg. No. 40-061, Alt. 0.	x	x			5/ 6/40
Dial light, indicator with vibrating bell (for 3/4-inch pipe mounting), watertight, dwg. No. 10-1097, Alt. 1.	x	x	x		5/25/40
Lovell-Dressel Co., Inc., Arlington, N. J.: Cargo hold fixture, watertight, 1 100-watt lamp max., cat. No. 1554, dwg. No. M-5399, Alt. 1.	x	x	x		4/14/40
Pump room or bulkhead fixture (for mounting in cargo pump room bulkhead of tank vessels), watertight, 1 100-watt lamp max., dwg. No. M-5182, Alt. 2.	x	x	x		5/23/40
Murkin Mfg. Co., Philadelphia, Pa.: Ceiling fixture, 12-inch, nonwatertight, 3 60-watt lamps max., dwg. No. 922, Alt. 0.	x				4/13/40
Oceanic Electric Products Corp., New York, N. Y.: Switch, single pole, nonwatertight, 10-a, 125-v., cat. No. 276, dwg. No. 2527, Alt. 0.	x				4/ 6/40 4/ 0/40
Pauluhn Elec. Mfg. Co., Inc., New York, N. Y.: Safety receptacle and switch, watertight, 2-wire, 2-pole receptacle and 2-pole switch, 10-a, 125-v., dwg. No. 36, Rev. 0.	x	x	x		5/26/40
Pilot Marine Corp., New York 6, N. Y.: Salinity valve and receptacle, dwg. No. PM-647D, Alt. 2.	x	x			5/ 4/40
Salinity cell assembly, dwg. No. PM-675A.	x	x			5/ 4/40
Salinity indicator panel, model 83A7, panel exterior, dwg. No. PM-651E, Alt. 1.	x	x			5/ 5/40
Salinity interior, model 83A10, interior, dwg. No. 692, Alt. 1.	x	x			5/25/40
Salinity interior, model 83A10, exterior, dwg. No. 693, Alt. 1.	x	x			5/25/40
Pyle-National Co., Chicago, Ill.: Lighting fixture, watertight, 1 40-watt lamp max., cat. No. BOLB-110, dwg. No. EX-5799, Rev. 0.	x				5/ 4/40
Sig-Trans, Inc., Amesbury, Mass.: Vibrating bell and lamp indicator, watertight, types 3 and 6, 115-v. A. C. and 115-v. D. C., dwg. No. H-100, Alt. 1.	x	x	x		5/ 5/40
The Simes Co., College Point, Long Island, N. Y.: Berth light, type A, nonwatertight, 1 40-watt lamp max., dwg. No. 44092, Alt. 0.	x				4/ 4/40
Ceiling fixture, type B, nonwatertight, 2 60-watt lamps max., dwg. No. 44096, Alt. 0.	x				4/ 4/40
Desk light, type F, nonwatertight, 1 40-watt lamp max., dwg. No. 44102, Alt. IV.	x				4/ 6/40
Wall light, type J, nonwatertight, 1 100-watt lamp max., dwg. No. 44098, Rev. 1.	x				5/18/40
Table lamp, type H, nonwatertight, 1 100-watt lamp max., dwg. No. 44099, Rev. 1.	x				5/18/40
Table lamp, type G, nonwatertight, 1 100-watt lamp max., dwg. No. 44100, Rev. 1.	x				5/18/40
Table lamp, types D-1 and D-2, nonwatertight, 1 100-watt lamp max., dwg. No. 44101, Rev. 1.	x				5/18/40
Floor lamp, type E, nonwatertight, 1 100-watt lamp max., dwg. No. 44103, Rev. 1.	x				5/18/40
Standard Switchboard Co., Brooklyn, N. Y.: Lighting distribution panel, type TC-2, 2/2-w., 125-v. D. C., type TC-3, 3/2-w., 250/125-v. D. C., 2 to 20 circuits, drip-proof, dwg. No. CG-145-1, Alt. 0.	x	x			4/26/40
United Electric Controls Co., Boston, Mass.: Pressure static marine contact maker, model 53N-200 p. s. i. max., model 53HN-350 p. s. i. max.; 460-v. A. C., 1,200 resistance watts or 300 inductive watts max.; 220 v. D. C., 110 resistance watts or 60 inductive watts max.; watertight, dwg. No. A148R, Rev. 0.	x	x	x		4/ 7/40

TERMINATION OF APPROVAL OF EQUIPMENT [CGFR 49-16]

By virtue of the authority vested in me as Commandant, United States Coast Guard, by R. S. 4405 and 4491, as amended; 46 U. S. C. 375, 489; and section 101 of Reorganization Plan No. 3 of 1946; 11 F. R. 7875, 60 Stat. 1097, 46 U. S. C. 1, the following approvals of equipment are terminated because the items of equipment covered are no longer being manufactured:

BOILERS, HEATING

Termination of Approval No. 162.003/7/0, Crane Sectional cast iron heating boiler, Dwg. No. 16313; maximum working pressure 15 pounds per square inch, manufactured by Crane Co., 836 South Michigan Avenue, Chicago 5, Ill. (Approved July 31, 1947.)

Termination of Approval No. 162.003/10/0, Fin type cast iron heating boiler; maximum working pressure 15 pounds per square inch, manufactured by Crane Co., 836 South Michigan Avenue, Chicago 5, Ill. (Approved July 31, 1947.)

Termination of Approval No. 162.003/48/0, Crane Series 110 cast iron heating boiler, Circular Nos. AD-1316 and 1319; maximum working pressure 15 pounds per square inch, manufactured by Crane Co., 836 South Michigan Avenue, Chicago 5, Ill. (Approved July 31, 1947.)

INDICATORS, BOILERS WATER LEVEL, SECONDARY TYPE

Termination of Approval No. 162.025/34/0, Model No. E-35, Dwg. No. B-6210; Reliance Eye-Hye secondary boiler water gauge, remote reading level indicator; manufactured by The Reliance Gauge Column Co., 5902 Carnegie Avenue, Cleveland, Ohio. (Approved March 25, 1948.)

CONDITIONS OF TERMINATION OF APPROVALS

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

Dated: April 27, 1949.

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

[F. R. Doc. 49-3514; Filed, May 3, 1949;
9:04 a. m., May 4, 1949, 14 F. R. 2205]

Merchant Marine Personnel Statistics

MERCHANT MARINE LICENSES ISSUED DURING APRIL 1949
DECK OFFICERS

		Region								Total	
		Atlantic coast		Gulf coast		Great Lakes and rivers		Pacific coast			
		O	R	O	R	O	R	O	R	O	R
Master	Ocean	18	95	6	27			12	51	36	173
	Coastwise		8	3	3				4	3	16
	Great Lakes					2	29			2	29
	B. S. & L.	8	23					3	9	11	34
Chief mate	Rivers	1	6	1	6				1	4	24
	Ocean	12	22	6	8	2	12			28	37
Second mate	Coastwise	1	2		2			10	7	1	4
	Ocean	27	27	6	3		3	7	13	40	46
Third mate	Coastwise		1		1						2
	Ocean	13	48	4	8		3	5	12	22	71
Mate	Coastwise	1								1	
	Great Lakes										
Pilot	B. S. & L.	2	5						3	2	8
	Rivers					7	9			7	9
Master	B. S. L. & R.	65	82	15	23	42	69	11	33	133	267
Mate	Uninspected vessels							1	1	1	1
	Uninspected vessels							4		4	
Total		148	319	41	82	53	126	53	134	295	661
Grand total		467		123		179		187		956	

ENGINEER OFFICERS

Steam	Chief engineer:										
	Unlimited	4	107	2	25	2	14	5	56	13	202
	Limited	5	48	1	14	4	51		10	10	123
	First assistant engineer:										
	Unlimited	17	17	9	11	2	7	3	18	31	53
	Limited		3			2	20		4	2	27
	Second assistant engineer:										
	Unlimited	22	49	7	14	3	9	13	38	45	110
	Limited		1			2	11			2	12
	Third assistant engineer:										
	Unlimited	2	37	3	14		12	8	22	13	85
	Limited					1	2			1	2
Motor	Chief engineer:										
	Unlimited	3	18	1	3		3	3	14	7	38
	Limited	17	27	2	6	4	5	4	12	27	50
	First assistant engineer:										
	Unlimited	2	4		2		2	1	3	3	11
	Limited	3	2		1	1	1			4	4
	Second assistant engineer:										
	Unlimited	1	3		1		1		3	3	8
	Limited		2		1			1		1	3
	Third assistant engineer:										
	Unlimited	4	61		6		19	1	39	5	125
	Limited										
Uninspected vessels	Chief engineer										
	Assistant engineer										
Total		80	379	25	98	21	157	41	219	167	853
Grand total		459		123		178		260		1,020	

One hour of pain IS LONGER THAN A WHOLE DAY OF PLEASURE

ORIGINAL SEAMEN'S DOCUMENTS ISSUED MONTH OF APRIL 1949

Region	(1) Staff officer	(2) Contin- uous dis- charge book	(3) United States merchant mariner's docu- ments	(4) AB any waters, unlim- ited	(5) AB any waters, 12 months	(6) AB Great Lakes, 18 months	(7) AB tugs and tow- boats, any waters	(8) AB bays and sounds ¹	(9) AB sea- going barges	(10) Life- boat- man	(11) Q. M. E. D.	(12) Radio opera- tors	(13) Certifi- cate of service	(14) Tanker- man
Atlantic coast.....	43	2	401	199	91	1	2			242	120	4	326	13
Gulf coast.....	8	7	229	57	17					36	50	2	147	38
Pacific coast.....	16		327	66	35	2				231	71	2	236	7
Great Lakes and rivers.....	1	2	984	44	104	64				119	117		1,062	29
Total.....	68	11	1,941	336	247	67	2	0	0	628	358	8	1,771	87

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

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

WAIVERS OF MANNING REQUIREMENTS FROM APRIL 1 TO APRIL 30, 1949

Region	Number of vessels	Deck offi- cers sub- stituted for higher ratings	Engineer officers substituted for higher ratings	Able sea- men sub- stituted 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.....										
Gulf coast.....										
Pacific coast.....	1				1					1
Great Lakes.....	1						2			2
Total.....	2				1		2			3

NOTE.—In addition, individual waivers were granted to permit the employment of 2 able seamen holding certificates for "any water—12 months" in excess of the 50 percent authorized by general waiver.

CREW SHORTAGE REPORTS FROM APRIL 1 TO APRIL 30, 1949

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														
Gulf coast	1					1								1
Pacific coast	42		5	2		6	1		5	6	11	14	5	55
Great Lakes														
Total	43		5	2		7	1		5	6	11	14	5	56

INVESTIGATING UNITS

Coast Guard Merchant Marine Investigating Units and Merchant Marine Details investigated a total of 553 cases during the month of March 1949. From this number hearings resulted involving 46 officers and 99 un-

licensed men. In the case of officers, 8 licenses were suspended, 10 were suspended with probation granted, 3 were voluntarily surrendered, 4 were closed with admonition, and 11 cases were dismissed. Of the unlicensed

personnel, 18 certificates were re-voiced, 21 were suspended, 50 were suspended with probation granted, 4 were voluntarily surrendered, 5 were closed with admonition, and 11 were dismissed after hearing.