## PROCEEDINGS OF THE

# MERCHANT MARINE COUNCIL

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UNITED STATES COAST GUARD



not less than 20 readers. PASS IT ALONG

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Proceedings of the

## MERCHANT MARINE COUNCIL

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#### FRONT COVER:

Towering plumes of steam match the Chicago skyline as tugs ease a freighter through the wintry Chicago River.

#### BACK COVER:

Excellent bow-on picture of a Mariner-type cargo ship just starting to load cargo at a Long Beach pier. Photo Courtesy Pacific Far East Lines.

#### DISTRIBUTION (SDL 64)

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CAPTAIN L. T. JONES



CAPTAIN C. H. BROACH

NEW MERCHANT MARINE COUNCIL MEMBERS: Pictured above are the division heads of Merchant Vessel Personnel and Merchant Vessel Inspection at Coast Guard Headquarters. See page 24 for brief biographical sketch.

## MAINTENANCE OF LIFESAVING EQUIPMENT

By CDR. Leonard E. Penso, USCG

An address delivered at the meeting of the Marine Section, Maritime Safety Council, 1956

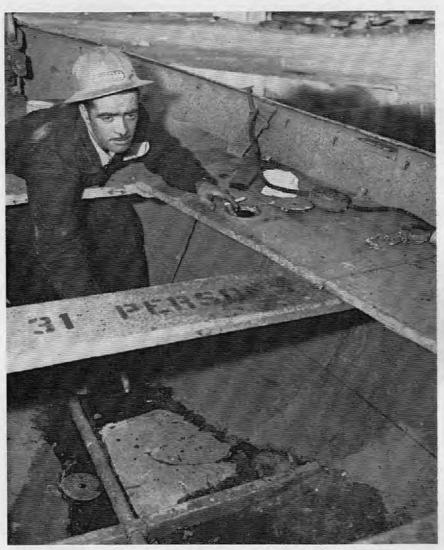
W Ho said, "Something is going to carry away," "Look out—we're falling," "Watch that wire"? Obviously, it wasn't Shakespeare or John Paul Jones, but it was someone you know. These are the words of merchant seamen launching lifesaving equipment during some boat drills. Imagine what might happen and what they might say in time of stress! Why these anguished words? Because something didn't perform properly. And why didn't it perform properly?—Generally because of poor maintenance or none at all.

Lifesaving gear aboard a merchant ship is not essential to its routine operation, it takes up space, earns nothing for the ship, and provides no comfort for the crew. In short, it is superfluous and parasitic. No wonder it is often neglected. Contrast this with other gear. If a cargo winch is not working properly, the fact that it might break down in the next port and cost the ship some standby time will usually result in the winch receiving prompt and careful attention. Or even in the case of more trivial matters-if a bunk light is burned out or if a fan isn't working, the demands for repair are urgent and insistent. Lifesaving equipment, on the other hand, does not "cry out" for care and upkeep. It can await its turn for attention, and it appears that in many cases its turn is far down on the list. Yet-when it is needed, when there is no time for upkeep, adjustment or test, it must function immediately and efficiently. It becomes, without qualification, the most important item on the ship.

Admittedly, the care and upkeep of lifesaving equipment isn't easy. Since it must be readily accessible, it must be stowed on open decks, exposed to the elements. Even protective covers must be held to a minimum to insure rapid launching. These basic operating conditions make lifesaving gear especially vulnerable to the ravages of time and weather.

#### NOT SIMPLE PROBLEM

The solution to this problem of maintenance isn't simple. It involves more than an occasional turning to of the crew at greasing and painting, or writing up a "catch-all" item on the repair list for the shipyard. On the contrary, it is a bothersome and complicated process. As well as routine care, it entails the keeping of records,



THIS IS MAINTENANCE? A shipyard employee is pointing out a cement patch in the battom of a lifeboat. This "repair" was discovered at a Coast Guard inspection, although no repair item was considered necessary or included on the worklist.

the conducting of operating tests, and the making of periodic examinations and inspections.

Maintenance of lifesaving gear should be supervised by a competent, responsible person, and by supervision I mean on-the-scene direction. Our casualty files contain many cases where the mate left the deck for a moment while the boats were being stowed. The result—broken falls, damaged lifeboats, and broken bones because someone was inattentive. In other cases of little or no supervision

we have damaged air tanks in lifeboats. As you know, independent tanks are hung from the side henches with sheet metal straps which are flanged over the side benches and held with screws. In the process of removing these tanks when overhauling lifeboats, the screws are sometimes lost. When the tanks are reinstalled someone gets the bright idea to use nails in lieu of screws and the nails are driven right through the tops of the tanks. Naturally, the shipowner is annoyed when the boats won't pass inspection.

At times even with supervision we have trouble because the man in charge of the work didn't consult the lubrication diagrams and technical information available to him. There is the case of a chief engineer on an oceangoing freight vessel who decided to improve on the lubrication system of one of his lifeboat winches. Without recourse to plans or technical data, he proceeded to add a grease fitting where he thought one was needed. He was probably quite pleased with his modification because his fitting did take a lot of grease. Somewhat later, after a lifeboat had been lost over the side due to malfunction of this well-lubricated winch, it was opened for inspection. One of its inner chambers was found to be packed solid with grease. Unfortunately the chamber housed a brake mechanism. It seems that the chief's fitting communicated indirectly with this chamber and that most of the grease had bypassed the part he intended to lubricate and went on to make the braking device completely ineffective. It was determined that this contributed directly to the loss of the boat. Fortunately there were no injuries, but there was considerable expense.

#### PAINT WITH CARE

Now that we have established that adequate and intelligent supervision of maintenance is necessary, let us delve into some of the details of maintenance-painting for example. You have often heard the expression "paint covers a multitude of sins." On a recent visit to a lifeboat repair plant I witnessed a perfect example of that old chestnut. A boat was being overhauled. All the air tanks were out and appeared to be in unusually good condition, but they wouldn't hold air. On closer inspection it was discovered that the bottom corner was badly rusted and some enterprising soul had covered the rusted corner with wide adhesive tape. After a neat paint job it was almost impossible to discover this defect. Needless to say, the repair plant lost money since their bid was based on no tank work.

There is no need to go into the details of surface preparation and painting of lifeboats. You all have your favorite techniques. There is, however, one inherent danger in painting the interior of lifeboats on shipboard. The boats are very often "run out" so that the gunwale is level with the deck for easy access. Shore-based painters, not familiar with the purpose of the Rottmer gear release handle, have on occasion raised the lever to paint under it, despite the fact that the lever is marked in large red letters "DANGER—LEVER RE-

LEASES HOOKS." The result is a wild ride down with the boat to the water, or worse—to the dock. The moral of this story is to always lash the ends of the boats to the davit heads independent of the falls whenever maintenance work is done aboard ship.

In preparation for this talk I asked one of the lifeboat builders what was the outstanding defect in lifeboats being returned to his plant for repair. He stated that frozen hand-propelling gear and releasing gear due to lack of lubrication or excess paint or both were the biggest offenders. There is no use belaboring the fact that grease fittings are put there to be used, but there is some merit in discussing the painting situation. The seagoing branches of the Armed Forces come in for a bit of "ribbing" now and then because of that old cliché. "If it doesn't move, paint it." In general, this isn't a bad rule to follow, but when lifesaving equipment is involved it should be amplified by "if it is supposed to move, paint with care." We have had many cases brought to our attention of faulty operation due to excess painting, not only of handpropelling gear and releasing gear but even davits and winches and their electrical components.

#### WATCH DISSIMILAR METALS

Maintenance of lifesaving equipment in the past 10 years has been further complicated by the widespread use of aluminum alloys in the construction of lifeboats, lifefloats, davits, winches, and embarkationdebarkation ladders. Unfortunately marine hardware manufactures and other suppliers have not kept pace with the advances made by the aluminum companies. The net result is a widespread use of dissimilar metals in hoat construction resulting in galvanic corrosion and costly repairs. Years ago we used to think that galvanized steel in combination with aluminum without insulation would be satisfactory because of the proximity of zinc to aluminum in the galvanic series. We learned to our sorrow that this was not the case. It was true that the zinc protected the aluminum and was sacrificed in the corrosion process, but the coating was so thin that hefore long the zinc was gone and the cell reversed in polarity with the aluminum protecting the bare steel. Corrosion may then proceed at an accelerated rate.

What can be done about this?—Well, a number of things. First of all, it is essential to minimize, insofar as possible, the use of dissimilar metals. When their use is unavoidable they should be insulated from each other and the amount of the more noble metal should be small so

that the attack is spread over as large an area of the less noble material as possible. In this respect, small amounts of certain stainless steels have been successfully used with aluminum. Since salt deposits form an effective electrolyte, it is essential to carry the insulation beyond the mating surfaces so that the path of the current is interrupted. Such precautions, however, will not suffice when the dissimilar metals are immersed in sea water. In such cases it is necessary to insulate the bolts or rivets connecting the dissimilar metals in addition to the insulation between the mating surfaces. Such a condition obtains in the after end of a lifeboat where a little bilge water is almost always present. Fortunately, there is very little dissimilar metal used in this area, however, a wrench or other tool carelessly left in contact with the aluminum could cause considerable damage.

It can be concluded from the foregoing that your main problem in the maintenance of aluminum lifesaving equipment will be the prevention of the accumulation of salt deposits which might bridge the gap hetween the dissimilar metals. Effective use of micarta, alumilastic, PAW tape, paint, and other protective material will go a long way toward minimizing this problem.

#### CHECK BLOCKS AND FALLS

Blocks and falls are items of lifesaving gear which seem to come in for a disproportionate amount of inattention. We had a recent case of a three-sheave steel block carrying away and dropping the after end of a lifeboat. Upon examination it was found that the internals of the block had wasted away. The master had the presence of mind to have the other blocks checked over, and five more were found to be in the same condition. Contrast this with the very same defect found on another ship. In this case the block was repaired, but it never seemed to occur to anyone to check over the other blocks on the ship.

Lifeboat falls are perennial trouble-makers despite the fact that they have a factor of safety of over six when new. We have publicized in the the Proceedings of the Merchant Marine Council many cases of the failure of wire falls when the davit is "two-blocked" due to faulty electrical controls or careless operation, or both. This is not surprising when one considers the considerable horse-power used in present day winches. What may come as somewhat of a

(Continued on page 26)

### ATOMIC WARFARE SCHOOL

E NTHUSIASTIC progress is reported by merchant marine officers attending an intensive 2-day course in atomic, biological, and chemical warfare at the U.S. Navy Supply Depot, Bayonne, N. J.

Sponsored by the Maritime Administration, the course is specifically designed for men who man merchant ships and stresses (1) wartime defensive measures against ABC attack; (2) peacetime protective measures against radioactivity; and (3) importance of maintaining watertight integrity as a result of ABC attacks.

More than 240 men representing almost all of the east coast steamship companies have attended the school to date. Maritime Administration officials have indicated that a second school is under consideration on the west coast, most likely on Treasure Island in San Francisco Bay, due to the great interest and implementation of a program to materially increase the defensive readiness of the merchant service.

#### WRAPS OFF INFORMATION

The Department of the Navy is cooperating in this project by providing the facilities, and the Military Sea Transportation Service is supplying instructors. Highlighted by films, the first day outlines objectives of the course, types of explosions, burst characteristics, medical aspects of radiation, preventive measures, ship decontamination, and introduction to radiation detection instruments.

It can be seen from this brief résumé that the wraps have been taken off all available information, and merchant marine crews will be placed on a par, informationwise, with service vessels.

The second day covers two heretofore classified topics—biological and chemical defense. The two will be defined, agents discussed, effects, and countermeasures clarified. Using preparedness as a key to survival in the event either biological or chemical warfare is encountered, the course clearly points out methods of detection and defense measures.

The final phase of the training is practical demonstrations on fighting fire and affords the students an opportunity to don foul weather gear and take part. Based on the premise that fire should be respected and not feared, this phase includes plastic-pipe patching, use of electrical submersible pumps, eductors, and packtype oxygen acetylene cutting methods.



Photo Courtesy MSTS Magazine

RESPECT IT, DON'T FEAR IT: That is the theme of the firefighters school at Bayonne, N. J., for merchant marine officers. Training in effective methods of extinguishing oil fires as pictured above are included in the course.

Realizing all participants will have specific problems, the course includes a comprehensive critique at the completion of the course when all problems will come under discussion.



Photo Courtesy MSTS Magazine

MONITOR TEAM: Training for merchant marine officers includes radiation monitoring as shown above. Note walkie-talkie to relay readings.

### PORTABLE LIFE RING BUOY BRACKETS







Photo Courtesy Seamen's Safety Guide

Figure 1.

ONE PORTABLE BRACKET devised utilizes an A-frame to support the life ring buoy. Note the deck padeye painted white. An excellent safety feature.

In order that they could be readily accessible in time of need, the Weyerhaeuser Steamship Co. has devised two portable ring life buoy brackets to more conveniently locate this equipment when the vessel is being stevedored.

One, a wooden A-frame, is shown in figure 1. The other, a strap bracket, is illustrated in figure 2. Both methods were tried under actual working

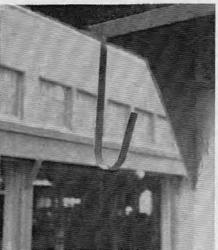
conditions. The strap type was found the more desirable. Consequently, all vessels of this fleet are being so fitted, according to the Seamen's Safety Guide, published by the Accident Prevention Bureau of the Pacific Maritime Association.

Both methods merit praise in the interest of shipboard safety, and are published to demonstrate a special method devised for a special problem.

In utilizing either of these methods, however, care should be taken that the bracket is securely fastened, so that when the buoy is cast loose the support does not come adrift.

Another item worthy of mention is the Weyerhaeuser policy of painting deck padeyes white. (See Figure 1.) The safety-conscious ship operator reports this helps to prevent seamen tripping on darkened decks.





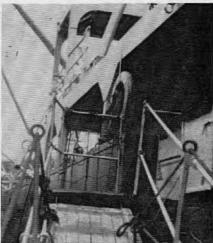


Photo Courtesy Scamen's Safety Guide

Figure 2.

THE SECOND BRACKET is useful in suspending a buoy near the gangway.



Q. Describe at least two methods employed on vessels for determining the relative humidity in a cargo hold.

A. The two most common methods employed on vessels for determin-

ing relative humidity are:

Use of sling or aspirating psychrometers to determine the dry bulb and wet bulb temperatures. These are then used to enter a table or chart to determine relative humidity. Instruments of an indicating or recording type which are actuated by a human-hair element which expands and contracts with changes in humidity are also used.

Q. What is meant by the term "dewpoint"?

A. The dewpoint is the temperature at which precipitation of moisture starts or the point of maximum saturation of air at a given temperature. Dewpoint is the temperature below which the saturated air begins to release its moisture.

Q. What is meant by the absolute humidity of the air?

A. The absolute humidity of the air is the weight of the water or moisture content, usually weighed in grains per cubic foot.

Q. If the dry bulb temperature is 80° and the wet bulb temperature 70°, what is the relative humidity in a cargo hold?

A. 61 percent.

Q. If the dry bulb temperature is 50° and the relative humidity 90 percent, what is the dewpoint?

A. 47.5°.

Q. Given a dry bulb temperature of 75° and a wet bulb temperature of 62.5°, find: (1) Relative humidity, (2) dewpoint.

A. (1) 50 percent; (2) 55°.

Q. A cargo of canned goods in a hold had a surface temperature of 45°. Would you ventilate this cargo if the outside air had a dry bulb temperature of 65° and a relative humidity of 50 percent?

A. No, ventilation under these conditions would cause condensation.

Q. (a) Would you consider sweat likely on the side of a ship with a seawater temperature of 38°, an air temperature in hold of 54° dry bulb and 45° wet bulb?

(b) Would you ventilate if outside air was 60° dry bulb, 52° wet bulb?

A. (a) No!

(b) No! The dewpoint would be approximately 45° and sweat would form on shell which would be near sea-water temperature of 38°.

Q. If the dry bulb temperature is 80° and the wet bulb temperature 75° in the air of a cargo hold, how far could the temperature of the air in the hold fall before condensation begins to take place?

A. To approximately 73°.

Q. The air in a cargo hold has a dry bulb and cargo temperature of 55° and a relative humidity of 80 percent. If you desired to lower the relative humidity in the hold, would you ventilate it with air whose temperature is 80° and relative humidity of 60 percent?

A. No! At 65° dewpoint, the outside air would condense moisture on

cold cargo.

Q. What is the relative humidity of the air in a cargo hold if the dry bulb temperature is 75° and the wet bulb temperature 65°?

A. 60 percent.

Q. (a) What is the relative humidity in a cargo hold if the dry bulb temperature is 80° and the wet bulb temperature 75°?

(b) What effect on the dewpoint in the hold would be caused by ventilating with outside air whose dry bulb temperature is 65° and whose relative humidity is 90 percent? Would such ventilation be advisable?

A. (a) 80 percent.

(b) The dewpoint would be reduced. Yes, unless the nature of the cargo was such as to require restricted ventilation.

Q. What are the forces to which the trunk-type piston is normally subjected during the operation of the engine?

A. The trunk-type piston is subject to the following forces:

(a) Gas pressure, bearing directly on the crown.

(b) Side thrust taken by the piston skirt.

(c) Its own inertia forces.

Q. (a) Why is the trunk-type piston used in many diesel engines?

(b) How is the piston protected from excess heat in large diesel engines?

A. (a) The trunk-type piston is used to reduce the height of the engine by eliminating the necessity for the piston rod, crosshead, and guides. The elongated piston is then necessary to absorb the side thrust and distribute the thrust over a large area of the cylinder wall.

(b) Large pistons are cooled

by spraying lubricating oil or water on the underside of the piston crown thereby removing the excess heat. The piston rings also serve to transfer some of the heat to the water-cooled cylinder liners.

Q. Why are counterweights applied to the cranks of some diesel

engines?

A. Counterweights are fitted to balance the revolving weight of the crankpins, webs, and the lower portion of the connecting rod, and thereby reduce vibration.

Q. What is the usual crank angle between the cranks in a two-cylinder, two-cycle engine; in a two-cylinder,

four-cycle engine?

A. (1) In a two cylinder twocycle engine the cranks are set 180° apart.

(2) In a two-cylinder fourcycle engine the cranks are set 360° apart.

Q. Why are two-stroke diesel engines often referred to as "valve-less" engines?

A. Two-stroke cycle engines are often referred to as "valveless" engines because many of these engines use ports for exhaust and scavenging air, instead of valves inserted in the head. The piston acts as its own valve in this case, covering and uncovering the ports.

Q. How are wet-type cylinder liners scaled against water leakage?

A. Wet liners are usually sealed against water leakage at the top end by a gasket under the flange or a machined fit, and by a rubber or neoprene rings around the lower end.

Q. What are the three common types of cam followers used on diesel engines? Which of these is usually used on small, high-speed engines?

A. The three common types of

cam followers are:

(a) The flat or mushroom fol-

(b) The roller type follower.(c) The pivoted follower.

The flat mushroom follower is usually used on small, high-speed engines because it permits fast opening and closing of the valve.

Q. How do the oil control rings differ when they are installed in engines using a splash lubricating system with respect to those installed in engines using individual cylinder lubricators?

A. The oil control rings used in conjunction with a splash system are fitted with the sharp edge nearest the crankcase, the object of which is to scrape the excess oil off the cylinder walls and return it to the crankcase.

The oil control rings used with individual lubricators are fitted with the sharp edge upward for the purpose of spreading the lubricating oil over the cylinder liner.



Photo Courtesy Matson Navigation Co.

RESCUERS HONORED: Bobby Naipo and Blewett Perkins are pictured above receiving inscribed gold watches from Matson Navigation Co. officials for their heroic rescue of a shipmate who fell overboard in Kahului, Maui, recently. Left to right are: E. J. Brodley, vice president, Eastern Area, Matson Navigation Co.; Naipo; Blewett; Capt. George Zepaloff, Master of the SS. Hawaiian Retailer; and Fred P. Zinn, Matson executive. Not pictured, but also receiving a watch, was Eddie Romeiko. See Traditions of the Sea in this issue for details.

#### **CAPTAIN JONES**

(Continued from page 18)

Head of the Merchant Vessel Personnel Division at Coast Guard Headquarters is Capt. Leonard T. Jones, USCG.

A former merchant seaman in the C. D. Malloy and Moore McCormack steamship companies, he was originally commissioned in the Coast Guard in 1928 after serving 3 years as an enlisted man and warrant officer. During his Coast Guard career, Captain Jones has had many assignments which gave him direct experience with merchant marine safety work.

In 1946 he was assigned as Senior Coast Guard Merchant Marine Detail Officer with headquarters in London, England. From here he coordinated the Coast Guard activities with the merchant marine with suboffices in major European ports. Captain Jones then was assigned Senior Investigating Officer in the Third Coast Guard District Marine Inspection Office, New York. After 25 months in this billet, he was sent to Seattle, Wash, as Officer in Charge, Marine Inspection, where he remained until taking over his duties in Headquarters last summer.

It is evident from the foregoing that Captain Jones is no stranger to the field of merchant marine safety.

#### CAPTAIN BROACH

(Continued from page 18)

Newest member of the Merchant Marine Council is Capt. Claude H. Broach, USCG, who assumed his duties as Chief, Merchant Vessel Inspection Division, on 1 November 1956.

A veteran merchant marine engineer, Captain Broach was commissioned in the Coast Guard in 1942 following a tour as engineering training officer with the Maritime Service in New London, Conn., and St. Petersburg, Fla. His initial service assignments were in Headquarters as Assistant Chief and then Chief, Merchant Vessel Personnel Division; and chairman of the National Appeals Board.

In 1953 he was assigned as engineering officer of the Coast Guard Cutter Taney in Almeda, Calif. After 10 months in this billet, he served 14 months as executive officer aboard the same ship. Following this tour of sea duty, Captain Broach reported to Houston, Tex., as Officer in Charge, Marine Inspection, and Captain of the Port.

A graduate of Mississippi State College with a bachelor of science degree in mechanical engineering, he spent over 8 years aboard merchant ships, 6 of them as licensed engineer.

#### TRADITIONS OF THE SEA

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

Names which should have a distinguished place on this roll are Boeby Naipo, Blewett Perkins, and Eddie Romejko.

These men, members of the deck department of the SS. Hawaiian Retailer, with a complete disregard for their own safety, leaped between their moored vessel and the dock to rescue shipmate NICK AKANA who had fallen overboard.

A summary of the incident follows:

A heavy swell was running in Kahului, Maui, while the sailors were securing the vessel for sea. In letting go the hauling part on the guy for the after port boom at No. 3 hatch, the boom swung inboard with a roll of the ship and Akana was pulled over the side. He sank from sight upon striking the water.

Naipo rushed down the gangway and jumped between the ship and the dock as the vessel sheared off momentarily. He was followed by BLEWETT. Naipo, a strong man and excellent swimmer, dove three times into the 35-foot depths before he found Akana and pulled him to the surface. Here, BLEWETT and ROMEJKO assisted in getting the unconscious man into a safety harness.

The entire crew turned to rigging lights over the side and bringing emergency equipment to the scene. In less than 2 minutes Felix Cunningham, Chief Mate; R. C. Webber, Second Mate; K. K. KAUHI, Boatswain; and seamen R. G. VAL, SIMEON CWIHUN, and JAN VAN VLIET had the ship breasted away from the dock so the rescue could be made safely.

Assisted by the men tending the lines attached to the safety harness, Naipo literally shouldered his shipmate and climbed the pilot ladder to the safety of the deck above. Akana was revived and taken to the Central Maui Hospital. Naipo was treated for immersion, but remained aboard the ship.

Captain G. A. ZEPALOFF, master

Captain G. A. ZEPALOFF, master of the ship, admitted loss of words that could "express my praise and admiration for NAIPO, PERKINS, and ROMEJKO."

The courage and disregard for personal danger by these men was truly in the best traditions of the American Merchant Marine.

#### **BROADCAST SCHEDULES**

U. S. Coast Guard Radio Stations Transmitting Weather, Storm Warnings, Hydrographic Data, and Notice to Mariners by Radiotelephone

Location	Call sign	Freq	Type of broad- cast	Time (GMT)	Routine weather	Storm warnings	Hydro data	Notice to Mariners
Boston, Mass	NMF	2694	Regular Emergency	0420 and 1620 Upon receipt		X X	x	x
New York, N. Y	NMY	2662	Regular Emergency	0450 and 1650 Upon receipt		x	х	x
Cape May, N. J	NMK	2662	Regular Emergency	0550 and 1750 Upon receipt	x	x x	х	X
Baltimore, Md	NMX	2702	Regular Emergency	1630 Upon receipt	x	x x	x	x
Norfolk, Va	NMN	2702	Regular Emergency	0520 and 1720 Upon receipt		x x	x	X
Fort Macon, N. C	NMN37	2702	Regular Emergency	1700 Upon receipt	x	x x	x	x
Charleston, S. C.	NMB	2678	Regular Emergency	0420 and 1620 Upon receipt		X X	x	Х
Jacksonville, Fla	NMV	2678	Regular Emergency	0620 and 1820 Upon receipt	x	x x	x	X
Miami, Fla	NMA	2678	Regular Emergency	0450 and 1650 Upon receipt		x x	x	х
St. Petersburg, Fla	NOF	2678	Regular Emergency	0420 and 1620 Upon receipt		x x	x	х
San Juan, P. R.	NMR	2678	Regular Emergency	0300 and 1500 Upon receipt	x	x x	x	х
New Orleans, La	NMG	2686	Regular Emergency	0550 and 1750 Upon receipt	x	x x	x	х
Galveston, Tex	NOY	2686	Regular Emergency	0520 and 1720 Upon receipt	x	x x	x	x
Long Beach, Calif	NMQ	2694	Regular Emergency	0500 and 1700 Upon receipt	x	x x	х	x
San Francisco, Calif	NMC	2662	Regular Emergency	0430 and 1630 Upon receipt		x x	x	х
Seattle, Wash	NMW	2702	Regular Emergency	0530 and 1730 Upon receipt	x	x x	x	x
Ketchikan, Territory of Alaska.	NMJ	2678	Regular Emergency	0600 and 1800 Upon receipt	x	x	х	· x
Honolulu, T. H	NMO	2686	Regular Emergency	0930 and 2130 Upon receipt		x x	x	х

NOTE:

The emergency broadcast will be repeated at the next scheduled broadcast if not previously canceled or superseded.
 The preliminary call and announcement of emergency broadcasts is made on 2182 kc/s and may be made on 2670 kc/s at the discretion of the USCG District Commander.
 The preliminary call and announcement of regular broadcasts is made on 2670 kc/s.

#### CONVENTIONS

The Government of the United Kingdom has advised this country that, acting as the depository nation, it received acceptance of the International Convention for Safety at Sea, 1948, from the Government of Turkey on October 19, 1956, and that in accordance with provisions of the Convention, the Turkish acceptance became effective January 19, 1957

The following is a list of countries which have accepted the International Convention for the Safety of Life at Sea, 1948, and of territories to which the Convention has been extended:

ountry	Date o	f deposit	Effective date		
nited Kingdom.	Sent	30, 1949			
ew Zealand		29, 1949			
nited States of America	Jan.	5, 1950			
rance.		8, 1950			
etherlands.		18, 1950			
weden		16, 1950			
orway		12, 1950			
nion of South Africa.		18, 1950			
eland		19, 1950			
ortugal		30, 1950	Nov.	19, 195	
anada		1, 1951	799		
akistan		1, 1951			
enmark		15, 1951			
ugoslavia		13, 1951			
aly		19, 1951			
elgium		5, 1951			
rael		2, 1952	1		
pan		23, 1952	1		
hilippines	. Oct.	2, 1952	1		
ndia	. Nov.	19, 1952	)		
oain	. Dec.	26, 1952	Mar.	26, 195	
iheria	_ Jan.	13, 1953	Apr.	13, 195	
hile		5, 1953		5, 195	
inland		13, 1953		13, 195	
ish Republic		19, 1953		19, 195	
ietnam	Sent	12, 1953		12, 195	
anama		8, 1954		8, 195	
reece		21, 1954		21, 195	
icaragua		19, 1954		19, 195	
ambodía.		2, 1954		2, 195	
. S. S. R.		10, 1954		10, 195	
witzerland		19, 1954		19, 195	
aiti	- May	26, 1954		26, 195	
gypt		11, 1954		11, 195	
oland.		11, 1954		11, 195	
ederal Republic of Germany		19, 1954		19, 195	
uba		26, 1954		26, 195	
oumanian People's Republic		30, 1954	Dec.	30, 195	
rincipality of Monaco.		12, 1955		12, 195	
ominican Republic	. Mar.	29, 1955	June	29, 195	
razil	_ Jan.	17, 1956	Apr.	17, 195	
enezuela		8, 1956	May	8, 195	
rgentina		31, 1956	Oct.	31, 195	
lungary		15, 1956		15, 195	
ulgaria		17, 1956		17, 195	
urkey		19, 1956		19, 195	
Extensions notified					



Photo Courtesy Tidewater Oil Company

SAFETY AWARD: Captain James F. Ardagh, left, Master of the MV Tydal is presented with a safety citation by R. K. Kelly, Tidewater Oil Co. transportation manager, for successfully rescuing four youths in Long Island Sound following the collision of two motorboats in a heavy fog. The citation was jaintly sponsored by the National Safety Council and the American Merchant Marine Institute.

#### (Continued from page 20)

surprise to you is the number of failures of wire falls in the launching operation with only the weight of the empty boat on the falls. Although this could be caused by an inherent defect, or kinking in the original installation, most of the evidence points to a lack of lubrication. Installations on shipboard appear to be heavily greased, and they are-except in way of the fixed sheaves on the side of the davit and other hard to reach places. Most of the corrosion is then concentrated in this area resulting in early failure of the wire rope. The answer to this is obvious. Take the load off the falls and free the falls from these hidden corrosion pockets and lubricate thoroughly.

Nothing especially new has been said here today. You all have had some or all of these experiences. The problem is to get this message to those who are directly involved. Your safety pamphlets are a natural medium for this message-perhaps somewhat as follows: Maintain adequate supervision-lubricate-paint but don't overdo it-watch for corrosion. especially where dissimilar metals are used, and if you find some-insulate-when a particular item fails be sure to investigate similar items on board-don't make changes to approved lifesaving gear.

Let us brainwash the crew with slogans so that safety becomes second nature. We must convince them that the life they save by proper maintenance might be their own. If we do this we will be a long way down the road to a superlative safety record.

## LESSONS FROM CASUALTIES

#### RADAR vs. EYESIGHT

A recent Admiralty Court decision in a controversial collision case (Triton—Baranof) contained a note of admonition to all seafarers navigating by radar. Radar is a device to assist in navigation; it is not intended to replace the navigator's eyesight when visibility is clear.

The collision occurred off Canadian territorial waters. The case was heard by the Supreme Court in Canada. That Court exonerated the *Triton* from all blame for the collision and criticized the pilot on the *Baranof* for "conning a ship by means of radar \* \* \* . He was at fault on that fine summer's night, paying so much attention to the radar and so little to what his eyes could have seen in front of his vessel."

#### CIRCUMSTANCES OF COLLISION

Briefly, the circustances surrounding the collision as found by the Court were as follows:

The *Triton* was a Greek-owned Liberty en route from Campbell River to Victoria, B. C., via Georgia Strait. The *Baranof* was a passenger vessel, bound from Seattle to Alaska. Both vessels had pilots on board.

The collision occurred shortly after midnight on July 26, 1952. It was a clear dark night and both vessels had unrestricted visibility. The Triton was not equipped with radar. The Baranof was so equipped and the radar was in continuous operation.

At 11:48 p. m. on the 25th, the Baranof had Thrasher Rock Light abeam to port, 1.3 miles off. She was on course 302° T. at 12.5 knots. The pilot stated that at 12:05 a. m. on the 26th he had observed a vessel by radar bearing 005° relative, range 3 miles. At 12:07 a. m. he changed course to the right to 312° T., "in the expectation that the Triton would pass the Baranof safely port to port."

pass the Baranof safely port to port."
Obviously, such an "expectation" on the part of the pilot required his assumption that he knew the Triton's course, which was not the fact. It is a basic rule in radar navigation that the course and speed of a radar target cannot be determined unless a plot is made to successive bearings.

The subsequent course changes of the Baranof cannot be exactly defined since the pilot's testimony was contradictory. He stated that the bearing of the Triton did not change—it had changed to the right—it had changed to the left. Nevertheless he made further course changes to the right and finally ordered, "Full right rudder." At 12:20 a. m. the pilot



Photo Courtesy Arteraft Studios, Seattle, Wash.

TOOTHY SILHOUETTE: An unusual photograph of the SS. Baranof. Under pilotage on a clear, dark night this vessel was in collision with the SS. Triton, a Greek-owned Liberty ship.

shouted, "Full astern." At 12:21 a.m. the collision occurred.

During the time between the first radar observation and the time of collision, the radar remained set on the 6-mile range. No whistle signal was sounded and there was no reduction in speed until one-half minute before the collision.

The third mate on the Baranof testified that he sighted the masthead lights of the Triton at about 12:08 a.m. He estimated the bearing to be approximately 2 points on the port bow (the mate was standing on the port wing when he saw the lights), and the distance off to be 3 to 4 miles.

He observed the *Triton* almost continuously through binoculars until 12:17 a.m. when he called to the pilot, "She's showing green, Cap; she's showing green!" The pilot acknowledged this information but remained at the radar with his eyes glued to the scope.

The Triton had passed Ballenas Light about 11:30 p. m. and set a course of 114° T. at 11 knots. Her pilot and second mate sighted the Baranof's masthead lights at 11:45 p. m., bearing 1—1½ points on the starboard bow and approximately 12 miles off.

There was no deck log kept and the times and bearings cited are approximations. When about 5 miles apart, the Baranof's green light was seen. The mate watched her closely through binoculars and concluded that the ships would pass safely starboard to starboard if each maintained course.

Navigation was routine for a few minutes. Suddenly, they noticed that the range and masthead lights had started to open. They watched for a moment and as the lights continued to open, realized that the other ship had radically changed course. What had been a normal meeting situation suddenly was transformed into a crossing situation with both ships on a collision course!

The Triton's pilot shouted. "Hard left!"-too late! The bow commenced to swing to port but not in time and in another minute the collision occurred. The Triton was holed on her starboard side in the way of the engineroom: the Barnof suffered heavy damage to her bow estimated at \$100,000. Two seamen were killed on the Triton and one injured. No one was injured on the Baranof. Both ships were able to make port safely.

The Canadian Supreme Court affirmed (with one dissent) the lower Admiralty Court ruling that held the Baranof at fault.

Once again it has been drastically pointed out that while radar alerts the navigator to the presence of another vessel and ascertains her position, one observation does not inform him as to the other vessel's

course and speed. Contrasting the radar presentation of an approaching situation with a

visual observation, it should be remembered that a vessel's course may be readily apparent by analyzing the relative position of her masts.

Here was a situation where radar was of little value. In fact, it actually served to distract the pilot from the work at hand. The only information it furnished which could not be determined visually was the exact range and a visual estimate was all that was

required. A plausible explanation for this collision could be that the pilot suffered from what might best be characterized as "radar hypnosis."\*

At 12:17 a. m., 4 minutes before the jaws of collision, the pilot was alerted to the Triton's green light and a rapidly developing meeting situation. He made no attempt to reduce speed, gave no whistle signal, and remained transfixed before the radarscope.

It has been said before but it can be reiterated: "Radar is only an aid to navigation and cannot think or conn the vessel."

\* EDITOR'S NOTE.—Given as one of four reasons for collision in the motion picture "Safe Passage" by Raytheon Manufacturing Co.

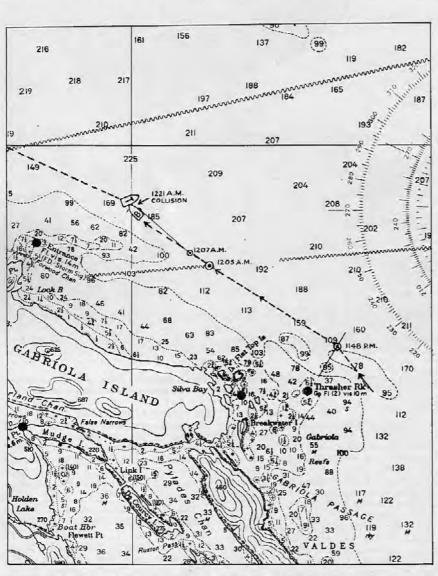


#### MERCHANT MARINE STATISTICS

There were 1,076 vessels of 1,000 gross tons or over in the active oceangoing United States merchant fleet on 1 December 1956, it was announced by the Maritime Administration.

This was 18 less than the number active on 1 November. There were 46 Government-owned and 1,030 privately owned ships making up this figure. Orders for 9 new tankers and 2 tanker conversions brought the total of oceangoing ships being built or under conversion to 69.

Shipyard employment, based on major commercial construction and conversion contracts, totaled 12,543. Seafaring jobs on active United States-flag ships of 1,000 gross tons or over, exclusive of civilian seamen manning Military Sea Transportation Service ships, was 56,552. Prospective officers in training in Federal and State nautical schools numbered 1.869.



COLLISION PATH: The section of navigation chart reproduced above traces movements of the two vessels to their early-morning collision. The Baranof was radar equipped.

### APPENDIX

### AMENDMENTS TO REGULATIONS

[EDITOR'S NOTE.—The material contained herein has been condensed due to space limitations. Copies of the Federal Registers containing the material referred to may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.]

## TITLE 33—NAVIGATION AND NAVIGABLE WATERS

Chapter I—Coast Guard, Department of the Treasury

Subchapter D—Navigation Requirements for Certain Inland Waters

[CGFR 56-52]

PART 82—BOUNDARY LINES OF INLAND WATERS

MISCELLANEOUS EDITORIAL CHANGES

In the description of boundary lines of inland waters specific reference objects are used in describing the lines. The changes in this document are editorial in nature and correct the names of aids to navigation and other reference points used. Although new reference points may be used in certain instances, these changes do not change the locations of the boundary lines as previously established and published in the Federal Register.

Because the amendments in this document are editorial in nature, it is hereby found that compliance with the Administrative Procedure Act respecting notice of proposed rule making, public rule making procedures thereon, and effective date requirements thereof, is impracticable and unnecessary.

(Federal Register of November 27, 1956)

## TITLE 33—NAVIGATION AND NAVIGABLE WATERS

Chapter 1—Coast Guard, Department of the Treasury

Subchapter i—Security of Waterfront Facilities [CGFR 56-51]

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

CERTAIN VESSELS OPERATING ON NAVIGA-BLE WATER OF UNITED STATES OTHER THAN GREAT LAKES AND WESTERN RIVERS It is hereby found that compliance with the notice of proposed rule making, public rule making procedures thereon, and effective date requirements of the Administrative Procedure Act is contrary to the public interest since this amendment of 33 CFR Part 125 is to give effect to Executive Order 10173, as amended, and in the public interest should be placed in effect as soon as possible.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Executive Order 10173, as amended, § 125.53 is amended by revising the headnote, and paragraph (a) (1) and (2) thereof to

read as follows:

§ 125.53 Requirements for credentials; certain vessels operating on navigable waters of the United States other than the Great Lakes and Western Rivers. (a) \* \* \*

(1) Towing vessels, barges, and lighters operating in the navigable waters of the continental United States other than the Great Lakes

and Western Rivers.

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

(40 Stat. 220, as amended; 50 U. S. C. 191, E. O. 10173, 15 F. R. 7005, 3 CFR, 1950 Supp., E. O. 10277, 16 F. R. 7537, 3 CFR, 1951 Supp., E. O. 10352, 17 F. R. 4607, 3 CFR, 1952 Supp.)

This amendment shall become effective November 30, 1956.

Dated: November 7, 1956.

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

[F. R. Doc. 56-9817; Filed Nov. 29, 1956; 8:50 a. m.]

## DEPARTMENT OF THE TREASURY

United States Coast Guard

[CGFR 56-49]

TERMINATION OF CERTAIN APPROVALS OF EMBARKATION-DEBARKATION LADDERS

The regulations and specifications for embarkation-debarkation ladders (flexible) for merchant vessels were considered as Item X of the Agenda at a public hearing held by the Merchant Marine Council on April 24, 1956, in Washington, D. C. The revised regulations regarding embarkation-debarkation ladders were published in the Federal Register dated September 6, 1956 (21 F. R. 6708-6713), and become effective December 5, 1956. The major changes in these regulations are:

 Permit the optional use of both chain and manila rope ladders as pilot

ladders.

(2) After January 1, 1957, the use of wire rope ladders as pilot ladders is prohibited.

(3) With respect to flexible ladders at lifeboat stations, such ladders are to be only chain ladders, but existing approved ladders on board passenger and cargo vessels may be continued in use so long as they are maintained in good condition.

(4) In the specification regulations for embarkation-debarkation ladders, the provisions with respect to aluminum alloy spacer ears were

removed.

(Federal Register of Saturday, December 1, 1956)

#### TITLE 46-SHIPPING

#### Chapter I—Coast Guard, Department of the Treasury

Subchapter O—Regulations Applicable To Certain Vessels During Emergency

[CGFR 56-57]

PART 154—WAIVERS OF NAVICATION AND VESSEL INSPECTION LAWS AND REGU-LATIONS <sup>1</sup>

DEEPER LOADING OF COASTWISE TANK SHIPS

The Deputy Secretary of Defense in a letter to the Secretary of the Treasury, dated December 12, 1956, requested a general waiver of navigation and vessel inspection laws of the United States, pursuant to the provisions of section 1 of the act of December 27, 1950 (64 Stat. 1120; 46 U. S. C. note prec. 1), to the extent necessary to permit the deeper loading of coastwise tank ships found suitable for such service.

The Secretary of Defense in an order dated August 5, 1955, and published in the Federal Register dated August 16, 1955 (20 F. R. 5953), gave to the Deputy Secretary of Defense a general delegation of authority to exercise powers of the Secretary of Defense upon any and all matters concerning which the Secretary of

<sup>&</sup>lt;sup>1</sup> This is also codified in 33 CFR Part 19.

Defense is authorized to act pursuant to law. Accordingly, the request of the Deputy Secretary of Defense for a waiver order was granted.

The purpose for the following waiver order designated § 154.40, as well as 33 CFR 19.40, is to waive the navigation and vessel inspection laws and regulations issued pursuant thereto which are administered by the United States Coast Guard to the extent requested by the Deputy Secretary of Defense. It is hereby found that compliance with the Administrative Procedure Act respecting notice of proposed rule making, public rule making procedure thereof, and effective date requirements thereof, is impracticable and contrary to the public interest.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by an order of the Acting Secretary of the Treasury, dated January 23, 1951, identified as CGFR 51-1, and published in the Federal Register dated January 26, 1951 (16 F. R. 731), the following waiver order is pro-

mulgated:

§ 154.40 Deeper loading of coastwise tank ships. (a) Pursuant to the request of the Deputy Secretary of Defense in a letter dated December 12. 1956, made under the provisions of section 1 of the act of December 27, 1950 (64 Stat. 1120; 46 U.S. C., note preo. 1), I hereby waive in the interest of national defense compliance with the provisions of the navigation and vessel inspection laws relating to the loading of coastwise tank ships, as well as the regulations issued thereunder and published in Part 43 of this chapter to the extent necessary to permit the operation of tank ships on coastwise voyages by permitting deeper loading of such tank ships when having been found suitable by the load line assigning authority and issued a special certificate authorizing operation at this increased draft.

(b) Tank ships subject to Part 43 of this chapter which are of sufficient strength and in suitable condition shall be permitted to load to the tropical load line in a summer zone or season on United States coastwise voyages. The seasonal freeboard of the loading port shall be taken as the freeboard for all zones covered by

such coastwise voyage.

(c) The load line assigning authority shall be responsible for the determination as to the tank ship's strength, condition, and suitability for this increase in draft. A vessel which is not considered fully suitable for deeper loading shall not be granted authority to load deeper than permitted by law and regulations in Part 43 of this chapter. The load line assigning authority shall issue to each

tank ship found to have the strength, condition, and suitability for deeper loading a special certificate authorizing such tank ship to engage in United States coastwise voyages at the increased draft indicated in the certificate.

(d) This waiver order shall remain in effect until terminated by proper authority and notice published in the FEDERAL REGISTER.

(64 Stat. 1120; 46 U.S. C., note prec. 1)

Dated: December 18, 1956.

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

[F. R. Doc. 56-10388; Filed, Dec, 19, 1956; 8:52 a. m.]

#### TITLE 46—SHIPPING

#### Chapter I—Coast Guard, Department of the Treasury

Subchapter A-Procedure Applicable to the Public

[CGFR 56-56]

PART 3-MERCHANT MARINE PERSONNEL

CUSTOMS AND IMMIGRATION FORM I-418, COMBINED PASSENGER AND CREW LIST

As a result of conferences held by the Bureau of the Budget with the Department of State, Immigration and Naturalization Service, U. S. Public Health Service, Bureau of Customs, and the U.S. Coast Guard, one form has been established to replace eight existing forms utilized by the shipping and aviation industries in the manifesting of passengers and crew. This form has been designated as Customs and Immigration Form I-418, Combined Passenger and Crew The provisions of R. S. 4573, as amended (46 U.S. C. 674), require, before a clearance is granted to any vessel bound on a foreign voyage or engaged in the whale fishery, that the master thereof shall deliver to the Collector of Customs a list containing the names, places of birth and residence, and description of the persons who compose his ship's company. As a public service the Coast Guard has been furnishing their Form CG-710A. Crew List, to masters of such vessels. After January 1, 1957, the Coast Guard will discontinue the printing of Form CG-710A and will discontinue the free ditribution of forms used in reporting members of the crew as required by R. S. 4573, as amended.

The Customs and Immigration Form I-418, Combined Passenger and Crew List, may be procured from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., at the price of \$2.00 per pad (100 forms). The use of this new Form I-418 will be effective January 1, 1957. The Bureau of Customs is charged with the primary responsibility of enforcing the provisions of R. S. 4573, as amended (46 U. S. C. 674), which requires the filing of a complete crew list by masters of certain vessels with the Collector of Customs before clearance may be granted.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Treasury Department Order No. 120, dated July 31, 1950 (15 F. R. 6521), to promulgate regulations in accordance with R. S. 4405, as amended, 4462, as amended, and section 7, 49 Stat. 1936, as amended (46 U. S. C. 375, 416, 689, § 3.13-20, Crew list, is canceled effective January 1, 1957.

(R. S. 4405, as amended, 4462, as amended; 46 U. S. C. 375, 416)

Dated: December 20, 1956.

[SEAL] A. C. RICHMOND,

Vice Admiral, U. S. Coast Guard, Commandant.

[F. R. Doc. 56-10585; Filed, Dec. 28, 1956; 8:52 a. m.]

# NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 9-56

November 21, 1956

Subj: Incombustible materials required in the construction of all living spaces on tank vessels

1. Purpose. This Circular is to disseminate information regarding the application of Rules and Regulations for Tank Vessels in 46 CFR 32.40-1 (d) (2) and (5) and 32.60-25, with respect to the term "fire resistive materials" used in the requirements for the construction and insulation of all living spaces on tank vessels.

2. Discussion. The Rules and Regulations for Tank Vessels (CG-123) describe in general language the requirements governing the construction of the living spaces on tank vessels, namely, the staterooms, hospital spaces, passageways, public spaces such as messrooms and recreation rooms, and similar spaces. The requirements in 46 CFR 32.60-25 and 32.40-1 (d) (2) and (5) call for the use of "fire resistive materials" for the construction and insulation of all living spaces on tank vessels. The term "fire resistive materials" as used in these regulations means an "Incombustible Material" as approved under the specification in 46 CFR 164.009 and listed in the pamphlet "Equipment Lists," CG-190. It is intended that within the living spaces. all materials of construction, including panels and insulation, together with any materials used in the erection or for their support, shall be approved "Incombustible Materials." The only combustible materials of construction permitted within the living spaces are decorative veneers and trim on the panels of staterooms and public spaces. No combustible materials are permitted in the passageways nor in hidden spaces. There is no restriction on the type of furniture or furnishings to be used.

3. Action. The information in this Circular is for the guidance of all persons concerned with the design. construction, operation, and inspection of tank vessels.

> H. T. JEWELL, Rear Admiral, USCG, Chief, Office of Merchant Marine Safety.

By direction of the Commandant.

#### NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 10-56

November 28, 1956

Subj: Shipping articles, certifying copies to be done by shipping commissioners

1. Purpose. This circular is to inform the owners of vessels bound on foreign voyages that the function of certifying the shipping articles required by R. S. 4575, as amended (46 U. S. C. 676), has been transferred from the collectors of customs to the Coast Guard shipping commissioners.

2. Discussion. The second provision of R. S. 4575, as amended (46 U. S. C. 676), provides: "It shall be the duty of the owners of every such vessel to obtain from the collector of customs of the district from which the

clearance is made, a true and certified copy of the shipping articles containing the names of the crew, which shall be written in a uniform hand, without erasures of interlineations." By delegations of authority this function has been transferred from the collector of customs to the Coast Guard shipping commissioners. The reason for this is that shipping articles are entered into before shipping commissioners or others who are authorized to perform the duties of shipping commissioners and it is logical that such person should certify copies of the shipping articles as required by R. S. 4575, as amended (46 U.S. C. 676), when the task has been completed.

3. New regulations. The following regulation has been prescribed to describe the new procedures to be followed:

14.05-3 Certification of shipping articles. For every vessel bound on any foreign voyage required to have shipping articles, it shall be the duty of the owners of such vessel to obtain from the shipping commissioner or the person performing duties of a shipping commissioner a statement showing that the duplicate copy of the shipping articles is a true and certified copy, as required by R. S. 4575, as amended (46 U.S. C. 676).

4. Action. The transfer of the function of certifying shipping articles to the shipping commissioner is in effect. The owners of vessels engaged in foreign voyages required to have crews signed on shipping articles should familiarize themselves with this change in procedure. To this end, Coast Guard personnel concerned with the administration and enforcement of this law will extend every possible assistance.

J. A. HIRSHFIELD. Rear Admiral, U. S. Coast Guard, Acting Commandant.

### ARTICLES OF SHIPS' STORES AND SUPPLIES

Articles of ships' stores and supplies certificated from 1 December 1956 to 31 December 1956, inclusive, for use on board vessels in accordance with the provisions of Part 147 of the regulations governing "Explosives or Other Dangerous Articles on Board Vessels." are as follows:

#### CERTIFIED

Gamlen Chemical Co., 4 Midland Ave., East Paterson, N. J., Certificate No. 282, dated 3 December 1956, "GAMLEN 'CW' SOLVENT."

Puritan Drug Co., Inc., 39 East 20th St., New York 3, N. Y., Certificate No. 283, dated 19 December 1956, "LAV-

O-SEPTIC 10%."

#### AFFIDAVITS

The following affidavits were accepted during the period from 15 November 1956 to 15 December 1956:

Piping Specialties Co., 2231 Curry St., Long Beach 5, Calif. FLANGES AND FITTINGS.

Uddeholm Company of America, Inc., 155 East 44th St., New York 17. N. Y. FERROUS TUBING.

#### FUSIBLE PLUGS

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

M. Greenberg's Sons, Brass Foundry and Machine Works, 765 Folsom St., San Francisco 7, Calif., Heat No. 172.

#### ACCEPTABLE COVERED STEEL ARC WELDING ELECTRODES

The following are additions to the list of electrodes which are acceptable to the United States Coast Guard for use in welded fabrications.

	Brand	AWS class	Operating positions and electrode sizes (inch)					
Distributor's and/or manufacturer's			552 and below	Жíв	7/52	34	916	
Air Reduction Sales Co., 42d St. Opp. Grand Central, New York 17, N. Y. (Arcrods Corp., manufacturer).  General Electric Co., Schenectady 5, N. Y. (Arcrods Corp., manufacturer)  Do.  National Cylinder Gas Co., Hollup Division, 4700 West 19th St., Chicago 50, III  Do	Airco 354 (1 Cr. ½ Mo.) Strikensy 624 W-916A (1 Cr. ½ Mo.) Sureweld B. Sureweld SP	E8016 E8016 E8010 E6010	1 2 1 1	2 2 2 1 1	2 2 2 2	2 2 2 2 2 2		

Norg.—The listing of Strikeasy 624 supersedes and cancels the listing of Strikeasy 1. The listing for the Sureweld B electrode supersedes the present listing and results in the 5/16-inch size being delisted.

