PROCEEDINGS OF THE MARINE SAFETY COUNCIL



DEPARTMENT OF TRANSPORTATION

UNITED STATES COAST GUARD

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December 1974

Season's Greetings	OF THE
During this time of joy and reflection, I would like to extend to all Proceedings readers my best wishes for a safe and hap haliday constant Wherever your yourges take you in the comi	MARINE SAFETY COUNCIL
gear, may they be blessed with fair winds and smooth seas. O. W. SILER, Admiral, U.S. Coast Guard, Commandan	Published monthly by the Command USCG, in the interest of safety at under the auspices of the Marine Sa Council. Special permission for repub tion, either in whole or in part, with exception of copyrighted articles or work, is not required provided cred
CONTENTS	given to the Proceedings of the Ma Safety Council. All inquiries and requ for subscriptions should be addresse Commandant (G-CMC), U.S. Coast Gu Washington, D.C. 20590. Use of fund- printing this publication has been
FEATURES	Page proved by the Director of the Bureau the Budget, May 21, 1969.
A New Improved Portable Tank For the Marine Industry .	. 223
DEPARTMENTS	Admiral O. W. Siler, USCG
Nautical Queries	. 228
Coast Guard Rulemaking	. 229
	The Marine Safety Council o

FRONT COVER

A new breed of cat, the Seabulk Challenger, splashes into the water after a launching from Kelso Shipyards in Galveston. Built for Scabulk Tankers, the catamaran tug is designed to make a rigid connection with a 588 foot tank barge for the transportation of petroleum products.

DIST. (SDL No. 99) A: abcd(2), fhklmntuv(1)

C: egmp(1)

D: i(5);

E: mn(1)

F: kp(1)

B: n(40); c(6); e(5); f(4);

ghj(3); r(2); bkipq(1)

Lists TCG-06, CG-13, CG-20

adfgklm(1)

BACK COVER

The familiar lines of a steamboat emerge in this photo of the construction of the Delta Queen's sister ship. Due for a January launching, the vessel is being built by Jeffboat, Inc., for the Delta Queen Steamboat Company.

December 1974

222

THIS COPY FOR NOT LESS THAN 20 READERS PLEASE PASS IT ALONG

Captain Richard Brooks, USCG **Executive** Secretary

The membership may be expanded by the Commandant or Chairman, Marine Safety Council to deal with special problems or circumstances.

Lieutenant (jg) G. D. Szczurek, Editor

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Rear Admiral R. A. Ratti, USCG

The United States Coast Guard

A NEW IMPROVED PORTABLE TANK FOR THE MARINE INDUSTRY

By Lieutenant Commander A. E. Henn, U.S. Coast Guard, and Mr. S. M. Colby

INTRODUCTION

On 25 June 1974, the U.S. Coast Guard promulgated regulations concerning a new marine portable tank (MPT). The regulations contain standards which were recommended by the National Offshore Operations Industry Advisory Committee (NOOIAC), an industry advisory committee to the Commandant, U.S. Coast Guard. The regulations permit the carriage of combustible liquids and dangerous articles (flammable liquids and corrosives) and become effective on October 1, 1974.

As early as 1955, the marine industry started to ship combustible liquids in portable tanks. The first shipments of combustible liquids in portable tanks in the United States were probably from the ports of Savannah and New Orleans. Subsequently, when the trend spread to other ports, the Coast Guard recognized the need to promulgate regulations that would permit the safe transportation of these cargoes.

HISTORY

In the past, two types of portable tanks have been accepted by the Coast Guard for transporting comhustible liquids in the marine industry. The first type is the specification ICC-51 (DOT-51) portable tank. The second type consists of either a gravity tank or a pressure vessel tank designed and constructed in accordance with 46 CFR 98.35.

About the Authors

LCDR A. E. (GENE) HENN graduated from the U.S. Coast Guard Academy in 1962. Following a four year tour aboard the USCGC *Chincoteague* as deck and engineering officer, he attended graduate school at the University of Michigan.

Upon his assignment to the Merchant Marine Technical Division at Coast Guard Headquarters, he headed the effort to develop standards for portable tanks. With the assistance of a Working Group established under the auspices of the National Offshore Operations Industry Advisory Committee, the regulations were developed within a year.

STANLEY M. COLBY, a graduate of the Georgetown Law School, began his career in public service in 1964. For five years he was assigned to the Admiralty Branch, Office of the Chief Counsel, at Coast Guard Headquarters. His present assignment in the Regulations and Administrative Law Division brings him in close contact with the Coast Guard's regulatory programs.

PROBLEM AREAS

The marine industry has been shipping combustible liquids and dangerous articles (flammable and corrosive liquids) in portable tanks since 1955. The early shipments were primarily combustible liquids in portable tanks having a capacity of more than 110 U.S. gallons.

Over the past ten years, the steady growth of the offshore industry in the Gulf Coast area has resulted in an increase of both the type and quantity of combustible liquids and dangerous articles shipped in portable tanks. However, the existing portable tank regulations are basically the same as they were ten years ago.

Within the offshore industry, there is a need to pump combustible liquids and dangerous articles to and from portable tanks, while the tanks are on board a vessel. The existing portable tank regulations provide for pumping a limited number of high flashpoint combustible liquids. However, there are no provisions for pumping low flashpoint combustible and flammable liquids and corrosives.

Another problem is that the existing portable tank standards represent two extremes in tank design. At one end of the scale, we have the light scantling gravity type tanks designed to carry some of the combustible liquids. The combustible liquids intended for carriage in these tanks are those having a flashpoint of 150° and greater and paraffinic hydrocarbons. The tanks are vented by a gooseneck vent or a pressure vacuum relief valve. An example of this tank is shown in Figure 1.

At the other end of the scale, we have the pressure vessels, DOT-51 specification tank for the carriage of flammable liquids having a flashpoint below 80°F. The tanks are vented by a pressure relief valve, and are provided with some form of vacuum protection.

An example of this tank is shown in Figure 2.

Finally, we are faced with the fact that neither of these portable tank standards prevents the leakage of cargo from the tank through the vents. In service, it is not unusual for the required vents on both the gravity and the pressure vessel tanks to be modified or removed completely. This results in the present situation where combustible and flammable liquids are being transported offshore in tanks which are not vented. The arguments for the unvented portable tanks are that gooseneck vents or relief valves get knocked off during shipment, and that for most vessels used to service the offshore industry, a fire of sufficient size to engulf a portable tank would probably result in the loss of the vessel also.

On the other hand, strong arguments against the unvented portable tank are that it represents an unnecessary safety risk aboard a vessel, the recognized pressure vessel code does not allow tanks without some pressure relief capability, and a rupture disc can provide a pressure relief capability and is less likely to get knocked off the tank when compared to a gooseneck vent or unprotected relief valve.

PROBLEM SOLUTION

For the past several years, the Coast Guard and the offshore industry have been discussing the need for new portable tank regulations. In July 1972, the Coast Guard recommended to NOOIAC that a working group be established to develop a new



portable tank standard for the marine industry. The recommendation was considered by the committee, and a working group on portable tanks was established.

In September of the same year, the working group held its first meeting in New Orleans, Louisiana. The group consisted of tank manufacturers, service companies, and oil companies. At this first meeting, it was agreed that the new portable tank standard should provide for:

1. The carriage of combustible,

flammable and corrosive liquids in Coast Guard approved tanks on Coast Guard inspected and certificated vessels;

2. A tank that can meet the international portable tank standard, reference (1);

3. A tank that can be used for general service in the marine industry; and

4. The filling and discharging of the tank while on board a Coast Guard inspected and certificated vessel.

In less than one year, the working group developed the portable tank standard and forwarded it to NOOIAC. In July 1973, the Committee presented the portable tank standard to the Coast Guard with the request that it be adopted as regulations.

After a thorough review of the portable tank standard, the Coast Guard published a revised draft as a notice of proposed rulemaking on December 5, 1973. On January 15, 1974, a public hearing was held on the notice of proposed rulemaking in New Orleans, Louisiana. As a result of the public hearing, over 70 valuable comments were received and reviewed by the Coast Guard. In general, the comments pointed out that certain parts of the proposed regulations needed to be clarified. The portable tank standard was again redrafted to clarify certain parts. On June 25, 1974, the portable tank standard was published as the Coast Guard regulations for marine portable tanks (MPT).

HIGHLIGHTS OF MPT REGULATIONS

The MPT regulations amend Subchapter F, reference (2), by adding a new Part 64, which contains the requirements for the testing, inspection and stamping of portable tanks that are constructed to carry combustible liquids and dangerous articles. This Part also contains the design and construction requirements for the installed piping system that may be used with a portable tank to fill and discharge the tank. The MPT regulations apply to all portable tanks constructed after October 1, 1974 for the carriage of combustible liquids or dangerous articles intended for transportation by vessel only. A portable tank constructed before October 1. 1974 may be allowed to continue in use if it meets the requirements contained in the proposed regulations, or until October 1, 1984 if it meets the construction and maintenance requirements contained in 46 CFR Subpart 98.35. A portable tank that can not meet the requirements of the MPT regulations or those contained in Subpart 98.35 would be allowed to continue in service until October 1. 1977 if the owner, lessee, charterer, or person in charge submits specified information that meets Coast Guard acceptance.

The MPT regulations also amend Subchapter I, reference (3), by adding a new Subpart 98.30, which contains the requirements for the handling and stowage of portable tanks bearing combustible liquids or dangerous articles on board a Coast Guard inspected and certificated vessel. The regulations include requirements for lifting a portable tank on and off a vessel, stowage and handling while on board a vessel, and the pumping to and from a portable tank while secured on a vessel.

DESIGN AND CONSTRUCTION

The MPT is a pressure vessel type portable tank, which has a maximum. allowable working pressure of at least 20 pounds per inch gauge (psig) but not more than 48 psig. A lower limit of 20 psig was selected for several reasons. Today, the total containment of the product is an internationally accepted philosophy in portable tank design. For the products that might be carried in an MPT, 20 psig was the pressure rating required by the design formula in the international portable tank standard, reference (1). In addition, the tanks are required to have a minimum shell and head thickness for puncture protection. For tanks having a diameter of four to five feet, and a length of six to eight feet, with a corresponding internal capacity of 500 to 1000 gallons, the minimum tank shell and head thickness is suitable for a maximum allowable working pressure of 20 psig. Finally, at this pressure, the ASME Code is applicable as a recognized pressure vessel code, reference (4). The upper limit of 48 psig was selected to insure that only liquids could be carried in the MPT. The portable tank standard is not suitable for compressed or liquefied gases.

Figures 3 and 4 show what a portable tank designed and constructed as an MPT might look like. Figure 3 is an MPT of 550 gallons with only lifting fittings. The tank is fitted with the required rupture disc.

Figure 4 is an MPT of 1000 gallons with a framework to provide for stacking of the portable tank. The framework also provides for additional protection of the tank. The tank is fitted with the required spring loaded relief valve.

The type and pressure setting of the pressure relief device also reflects the internationally accepted philosophy of total containment of the cargo in a portable tank. An MPT with an internal capacity of more than 550 gallons must have one or more spring loaded relief valves. In addition, a rupture disc may be attached. An MPT with an internal capacity of 550 gallons or less must have a rupture disc or a spring loaded relief valve. Regardless of the internal capacity of the portable tank, the pressure relief devices must be set at a nominal pressure of 125 percent of the maximum allowable working pressure. The intent is to provide a pressure relief device which contains the product during all normal operating conditions, and protects the tank against excessive pressure build up during any abnormal conditions, such as a fire around the tank.

The inspection requirements for the MPT are of particular interest.

During the construction of the tank, the Coast Guard performs the shop inspection and witnesses the hydrostatic test of the portable tank. If the MPT conforms to the Coast Guard approved plans and passes the hydrostatic test, the MPT is stamped by the Coast Guard. From this point, it is the responsibility of the owner or his representative to conduct the periodic inspections and tests. The periodic inspections and tests are required to retain Coast Guard approval. The required periodic inspections and tests consist of one or more inspections of the pressure relief and vacuum relief devices during each 12 month period of service, a visual inspection of the MPT during the 30 months before any month in which the tank is in service, and a hydrostatic test of the MPT during the 60 months before any month in which the tank is in service.

The MPT regulations provide for the filling and discharging of the tanks while secured on a vessel. The cargo handling system provided by the regulations is one that is temporarily placed aboard a Coast Guard inspected and certificated vessel. A typical example is the offshore supply vessel used to ship methanol to offshore rigs during the winter months. The normal procedure is to contact the cognizant Officer in Charge, Marine Inspection and request an endorsement on the vessel's certificate to permit the carriage of the cargo (i.e. methanol). After the plans and required information have been submitted and approved by the Coast Guard, it is necessary to request a shop inspection of the tanks and an inspection of the tanks and cargo handling system that are placed aboard the vessel. In each ease, the inspection procedure should be discussed with the cognizant Officer in Charge, Marine Inspection. The procedure may vary depending on local conditions.

OPERATING REQUIREMENTS

The handling and storage requirements for marine portable tanks are



contained in Subpart 98.30. It was the intention of the Coast Guard to promulgate regulations that would assure safe transportation of portable tanks with the very basic obligations. These include inspections, stowage, and fire-fighting safeguards.

Prior to operating a vessel with a marine portable tank on board, it is the responsibility of the master or the person-in-charge to make certain that the required inspection and test dates are in order. The inspection and test requirements for an MPT have already been discussed. However, portable tanks constructed before October 1, 1974 must have an inspection and a hydrostatic test date that is within 48 months before the month during which the vessel is operated. If the tank does not have this date, it must bear the following:

LIMITED FOR

(herein is inserted the dangerous article or combustible liquid accepted by the Coast Guard for carriage by the tank)

UNTIL October 1, 1977

These latter tanks can not meet the MPT requirements or the Subpart 98.35 portable tank requirements and the Coast Guard will allow them to be phased out of service within the next 3 years. In addition to the stowage requirements, each MPT must be approved for the carriage of a combustible liquid or dangerous article. The regulations effective October 1, 1974 allow the following combustible liquids or dangerous articles to be carried:

1. Grade D (any combustible liquid having a flashpoint above 80°F but below 150°F).

2. Grade E (any combustible liquid having a flashpoint of 150°F or more).

- 3. Acetone.
- 4. Alcohol.
- 5. Ethyl methyl acetone.
- 6. Toluol (toluene).
- 7. Xylol (xylene).
- 8. Benzene (benzol).
- 9. Gasoline.

10. Hydrochloric-hydrofluoric acid mixtures containing not more than 2 percent hydrofluoric acid.

11. Sulfuric acid of concentrations 65.25 percent or greater provided the corrosive effect in steel measured at 100°F is not greater than that of 65.25 percent sulfuric acid.

12. Sulfuric acid concentration not to exceed 51 percent, if the tank is rubber lined.

It is not the intention of the Coast Guard to limit the carriage of combustible liquids or dangerous articles to the 12 listed cargoes. Additional cargoes may be proposed in future.

Although only the minimum stowage requirements are specified, it is the Coast Guard's experience that these requirements assure safe operation of a vessel carrying the 12 listed cargoes. As an example, the MPT must be stowed on an open deck. Although many commenters objected to this requirement when the regulations were proposed because the international portable tank standard allows below deck stowage, it was the Coast Guard's opinion that below deck stowage would require many additional operating requirements. By requiring "open deck" stowage for the MPT, a minimum of operating requirements is imposed.

Additional stowage requirements include the provisions that a portable tank may not be stowed in the vicinity of another portable tank that contains a cargo that is incompatible with the cargo contained in the first tank, no person may smoke within 50 feet of a portable tank on the deck in which the tank is stowed, and all electrical equipment within 10 feet in any horizontal direction and 8 feet above the deck must be explosionproof or intrinsically safe.

The operating requirements include safety requirements concerned with pollution. The transfer connection area for a portable tank must consist of an enclosed deck area or a container having a capacity of 5 gallons or more. In addition, there must be a means of removing or draining any leakage without mixing incompatible products or discharging into the water. There are additional equipment, personnel and procedural requirements. These are compatible with the pollution requirements contained in 33 CFR Parts 154, 155 and 156.

There are several requirements which address the pumping of combustible liquids and dangerous articles. A portable tank may not be piped with another portable tank that contains a chemically incompatible product. Pumping may not start, or be continued, if there is an electrical storm, a fire in the vicinity, or if the cargo hose ruptures or leaks. A red flag by day, and a red lantern by night must be displayed if the cargo being pumped has a flashpoint of less than 300°F and the vessel is moored. If the vessel is anchored under the same condition, a red flag must be displayed. The following sign must be displayed at the gangway:

WARNING No Open Lights No Smoking

Water must be maintained in the firemain during these operations. Firehoses must be fitted with a Coast Guard approved combination nozzle. The hoses must be attached to each fire hydrant in the vicinity of the portable tank. Alternatives to the fire extinguishing system required in § 98.30–37 may be accepted by the Commandant if he is satisfied, after suitable trials, that the equipment is at least as effective as that required in § 98.30–37.

The operating requirements address the increased operational needs of the marine industry in shipping combustible liquids and dangerous articles. At the same time, there is a corresponding increase in the overall safety of these operations aboard a Coast Guard inspected and certificated vessel.

CONCLUSION

The MPT regulations provide a portable tank standard that is consistent with the international portable tank safety standard, and a cargo handling system that is consistent with existing Coast Guard regulations. The operating requirements provide a safer means of shipping combustible liquids and dangerous articles on a Coast Guard inspected and certificated vessel.

REFERENCES

- International Maritime Dangerous Goods Code, Part 13—Portable Tanks, Intergovernmental Maritime Consultative Organization, 1969.
- Subchapter F, CG-115-Marine Engineering Regulations, U.S. Guard, 1973.
 Subchapter I, CG-257-Rules and Reg-
- (3) Subchapter 1, CG-257—Rules and Regulations for Cargo and Miscellaneous Vessels, U.S. Coast Guard, 1973.
- (4) Section VIII, Division 1, Boiler and Pressure Vessel Code, American Society of Mechanical Engineers, 1974.

Nautical Queries

"Nautical Queries" returns to the *Proceedings* this month, featuring questions selected from examinations presently in use for deck officers (2nd and 3rd Mate) and engineers (2nd and 3rd Assistant). Additional questions of the type presently being used will appear in future issues.

The answers and comments concerning applicant response to the questions are found on page 231.

SAMPLE DECK QUESTIONS

1. Which of the following statements about the rate of rise of the tide is (are) correct?

I. The rate of rise is not uniform.

II. The tide rises fastest when it first starts to rise.

A. I only

B. II only

C. Both I and II

D. Neither I nor II

2. Which of the following is (are) responsible for the production of advection fog?

I. A cold air mass moving over a warm sea surface, mixing with the warmer air prevailing there

II. A warm moist air moving over a cold sea surface, becoming chilled by contact

A. I only

B. II only

C. Either I or II

D. Neither I nor II

3. How often should cargo booms be weight-tested by the American Bureau of Shipping to reaffirm their safe working lnad?

A. Every four years

B. Every two years

C. Annually

D. At each drydocking

4. Under which of the following circumstances should a vessel indicate by whistle signals that its engines are going astern?

I. On visually sighting another vessel

II. On hearing the fog signal of another vessel A. I only

B. II only

C. Both I and II

D. Neither I nor II

5. Which of the following signals should be sounded by a power-driven vessel engaged in fishing near a main ship channel in Inland waters in reduced visibility?

A. A blast of the fog horn, or other equivalent signal at 1-minute intervals

B. When approached, four or more short and rapid blasts of the whistle

C. One prolonged and two short blasts of the whistle at 1-minute intervals

D. One prolonged blast of the whistle at 1-minute intervals

6. Frapping lines are fitted to lifeboat davits to

A. secure the lifeboat in the davits when in the stowed position

B. bring the lifeboat close alongside the rail in the embarkation position

C. give the occupants a safety line when the boat is being lowered from the embarkation level

D. reduce the swinging of the lifeboat as it is being lowered from the embarkation level

7. The forward draft of your ship is 27'11" and the after draft is 29'03". The draft midships is 28'05". Your vessel is

A. hogged

B. sagged

C. listed

D. trimmed by the head

8. On November 13, 1971, your vessel's 1200 zone time DR position is latitude $22^{\circ}02'$ south, longitude $90^{\circ}51'$ west. You are steaming on a course of 302° true at a speed of 21 knots. Your height of eye is 50 feet and your sextant has an index error of 2' on the arc. The sun transited the meridian at 1147 and the sextant altitude of its lower limb was $85^{\circ}36.6'$. What is your latitude at 1200 zone time?

A. 22°05.5' south B. 22°09.6' south

C. 22°12.0' south

D. 22°16.0' south

SAMPLE ENGINEER QUESTIONS

1. When burner fires begin sputtering, indicating water in the fuel oil, you should

I. shift from high to low settler suction

II. shift suction to another settler tank

A. I only

B. II only

C. Both I and II

D. Neither I nor II

2. If Coast Guard Regulations require a vessel to have fourteen B-II fire extinguishers, how many spare extinguishers must be carried?

A. One

B. Two

C. Four

D. Seven

3. Flame scanners are used with boiler combustion control equipment to monitor flame quality and to

I. regulate the fuel-air ratio controller for more efficient combustion

II. shut off the fuel supply if flame failure is detected

A. I only

B. II only

C. Both I and II

D. Neither I nor II

4. The thermal control bulb of the thermostatic expansion value is located near the evaporator outlet in an R-12 refrigeration system to

A. prevent excessive evaporator superheat

B. prevent excessive refrigerant pressure

C. control the expansion valve operation

D. control the refrigerated space temperature

5. Pounding at the water end of a steam reciprocating feed pump can be reduced by

I. an air chamber in the discharge line

II. proper operation of the steam cushioning valve

A. I only

B. II only

C. Both I and II

D. Neither I nor II



CHIEF, OFFICE OF MERCHANT MARINE SAFETY UNITED STATES COAST GUARD WASHINGTON, D. C. 20590

TO ALL READERS OF THE PROCEEDINGS OF THE MARINE SAFETY COUNCIL:

The Office of Merchant Marine Safety with the support of the Office of Research and Development is engaging in an extensive study into an area of continuing concern to all seafarers, THE MARINE PORTABLE FIRE EXTINGUISHER.

No study of this subject can be complete without the view of the men whose lives are protected by this equipment. You the seamen, the engineers, the masters, the pilots and the shipowners are the people we look to for comments and suggestions on such topics as: the kinds and sizes of fire you have been able to extinguish with portable extinguishers; the types of fires that could not be controlled with a portable extinguisher; and improvements to the Coast Guard portable extinguisher rating system.

Your collective background, experience, and ideas for the future cannot be equalled by a shipload of studies. If we are to make the types of changes in the regulations that will make your working lives safer, we need to know your likes, your complaints, and your frustrations with present equipment as well as your suggestions and requests for new equipment. In addition positive comments as to successes and good points of present extinguishers are also solicited.

By writing your comments on the reverse of this page and dropping it in the mail to us you will be making an important contribution to the safety of your life at sea.

Mh Beskert

W. M. BENKERT, Rear Admiral, U.S. Coast Guard.

DEPARTMENT OF TRANSPORTATION U. S. COAST GUARD WASHINGTON, D. C. 20590

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COAST GUARD RULEMAKING

(Status as of 1 November 1974)

	ſ						
	Notice of proposed rulemaking	Public hearing	Deadline for comments	Awaiting final action	Withdrawn	Published as rule	Effective date
1972 PUBLIC HEARING				1			
Tailshaft inspection and drawing (67-71, 4-71)	3-1-72	3-97-79	4-3-79	~			
ANCHORAGE REGULATIONS			1.572	1		*******	
San Juan Harbor, P.R. (CGFR 72–12). Juan DeFuca, Wash. (CGD 72–233) Sodus Bay, NY (CGD 73–84). Puget Sound Arca, WA (CGD 73–180). Indian River, Sebastian, FL (CGD 74–104).	2-1-72 12-5-72 4-27-73 8-24-73 7-2-74	· · · · · · · · · · · · · · · · · · ·	3-4-72 1-9-73 5-29-73 9-28-73 8-5-74	xx ixx	* • • • • • • • • • • • • •	7-2-74	8–19–74
Sacramento R. et al., CA (CGD 73–142) Westchester Ck., NY (CGD 73–166) Cheesequake Ck., NJ (CGD 73–162) AIWW, Mile 342, Fla.; Drawbridge Operations (CGD	7-20-73 8-10-73 8-10-73	· · · · · · · · · · · · · · · · · · ·	8-21-73 9-11-73 9-11-73	×××	********		
72–190P). AIWW Mile 342, Lauderdale-By-The-Sea, EL (CCD)	9-30-72		11-1-72		8-7-74		
74–180)	87-74		9-6-74				
Rahway R., NJ (CGD 73-196) Back Bay of Biloxi, MS (CGD 74-37)	9–11–73	····	10–16–73	· · · · ·	· · · · · · · · · · · · · · · ·	8-29-74 2-21-74 Extended	9-30-74 8-29-74 through
Little Manatee R., FL (CGD 74–41). Sturgeon Bay, WI (CGD 74–97). Galveston Channel, G.I.W.W., TX (CGD 74–85) New River Sound and Stranahan River, FL (CGD 74–	2–21–74 4–9–74 4–10–74	· · · · · · · · · · · · · · · · · · ·	3–19–74 5–14–74 5–14–74	× 		8-29-74 8-2-74 7-31-74	1-31-75 9-2-74 9-2-74
Genesee R., NY (CGD 73–203). Stony Ck., MD (CGD 73–242). Lake Worth A.I.W.W., FL (CGD 74–117). San Joaquin River, Georgiana Slough, Sacramento	4-22-74 9-13-73 10-12-73 5-2-74	• • • • • • • • • • • • • • • • • • •	5-20-74 10-16-73 11-20-73 6-25-74	× :××	• • • • • • • • • • • • • • • • • • •	8-7-74	9-9-74
River, CA (CGD 73–172) AIWW, Hillsboro Inlet, FL (CGD 74–22). Chuckatuck Ck., Va. (CGD 74–71). Chesapeake & Del. Canal, Del. (CGD 74–72). Coosaw R., S.C. (CGD 74–58). New River, FL (CGD 74–114). Manatee River, FL (CGD 74–101). Chicago River, IL (CGD 74–101). Chicago River, IL (CGD 74–137). Nanticoke River, MD (CGD 74–154). Columbia and Snake Rivers, WA (CGD 74–223). Bayou Little (Petit), Caillou, LA (CGD 74–215). Vermillion River, LA (CGD 74–214).	5-24-74 1-25-74 3-29-74 3-11-74 4-22-74 4-22-74 4-22-74 6-3-74 6-17-74 9-20-74 9-19-74 9-19-74	7-24-74	$\begin{array}{c} 7-2-74\\ 3-1-74\\ 4-30-74\\ 4-30-74\\ 5-20-74\\ 5-20-74\\ 5-20-74\\ 7-16-74\\ 8-7-74\\ 10-22-74\\ 10-22-74\\ 10-22-74\\ 10-22-74\end{array}$	*****		8-7-74	9-9-74
HAZARDOUS MATERIALS							
Dichlorobutene, Corrected, F.R. 9-20-72, Hazardous Cargoes (CGD 72-162PH) Certification of Cargo Containers for Transport under Customs Seal (CGD 72-139)	8-30-72 11-17-72	10-24-72	10-31-72 12-19-72	×	••••••	7_21 74	0 00 74
Miscellaneous Dangerous Cargoes (CGD 72-182)	11-11-72	12-12-72	12-19-72	2		/-31-/4	8-30-74

Coast Guard Rulemaking—Continued

	Notice of proposed rulemaking	Public hearing	Deadline for comments	Awaiting final action	Withdrawn	Published as rule	Effective date
Dangerous Cargo Regulations, miscellancous (CGD 73-249) Notice of arrival of laden vessels (CGD 73-253) Sodium sulfide solution and sulfur dioxide (CGD 73-275).	1-16-74 6-25-74 7-16-74 Corrected 9-5-74		3-4-74 8-8-74 10-29-74	××			
Vinyl chloride (CGD 74–167) Vinyl chloride, supplementary notice (CGD 74–200) MARINE ENVIRONMENT AND SYSTEMS	9–19–74	8-13-74	9-0-74 11-4-74				
(GENERAL) Marine Sanitation Devices (CGD 73-83) Vessel traffic system, Puget Sound (CGD 73-158) Chesapeake Bay entrance (CGD 73-152) Boundary Lines of Inland Waters (CGD 73-241)	3-1-74 8-6-73 12-18-73 4-8-74 corrected 5-8-74	5174 83073 12374	5-14-74 9-17-73 2-11-74 5-26-74	×i××		7–10–74	9–30–74
Security Zone, Port Valdez, AK (CGD 17-74-1) Pipelines, lights to be displayed (CGD 73-216)	9-19-74 Corrected	10-21-74	11-4-74	••••		8–15–74	6-21-74
Control of vessel operations (CGD 73-202) MERCHANT MARINE SAFETY (GENERAL)	3-1-74 Supp. Notice 10-24-74	12–5–74	12-13-74				* • <i>•</i> • • • • • • • •
Oceanographic vessels, fire main systems (CGFR 72-20) Water lights, floating electric (CGFR 72-48) Ship's Maneuvering Characteristics Data (CGD 72- 134PH)	2-4-72 3-9-72 8-22-72 Supp. Notice	4-18-72 9-28-72	3-19-72 4-24-72 10-13-72	×× ×			
Emergency Position Indicating Radio Beacons (CGD 73-24). Radar observer licensing (CGD 73-238). Portable tanks (CGD 73-172).	7-20-73 3-5-73 10-12-73 12-5-73	4–18–73 1–15–74 New	8-31-73 4-30-73 11-30-73 1-21-74	×		3–18–74 9–26–74 6–25–74	3–1–75 11–25–74 10–1–74
Marine engineering amendments (CGD 73-248) Tank vessel electrical installation (CGD 74-118) Unmanned Platforms (CGD 73-177)	12-11-73 8-26-74 1-8-74 Corrected 1-29-74	Orleans	1–14–74 10–10–74 2–25–74	 X		. 8–26–74	8-26-74
 Releases, Lifesaving Equipment, Hydraulic and Manual (CGD 73-153). Bulk Dangerous Cargoes, Inspection of Barges (CGD 73-271). Lifesaving Equipment Specification (CGD 73-246). First Aid Certificates (CGD 73-272). CO₂ Fixed Fire Extinguishing Systems (CGD 74-100). Carriage of Solid Hazardous Materials in Bulk (CGD 74-13). Tank vessels in domestic trade (CGD 74-32). 	1-8-74 3-11-74 3-18-74 4-2-74 5-8-74 5-15-74 6-28-74 Corrected 7-23-74	4-15-74 7-16-74 7-23-74 Seattle 7-30-74 Wash.	2-25-74 4-30-74 5-2-74 6-15-74 6-24-74 8-31-74 8-19-74	× × × ××		10-16-74	10-14-74

Coast Guard Rulemaking—Continued

	Notice af proposed rulemaking	Public hearing	Deadline for comments	Awaiting final action	Withdrawn	Published as rule	Effective date
 Welding and brazing, adoption of ASME Code (CGD 74-102). Load line regulations, rail height adjustment (CGD 74-164). Construction and equipment of tank vessels (CGD 74-127). 	9–26–74 10–4–74 Advance Notice 9–5–74		111174 111574			· · · · · · · · · · · · · · · · · · ·	

NOTE: This table which will be continued in future issues of the Proceedings is designed to provide the maritime public with better information on the status of changes to the Code of Federal Regulations made under authority granted the Coast Guard. Only those proposals which have appeared in the Federal Register as Notices of Proposed Rulemaking, and as rules will be recorded. Proposed changes which have not been placed formally before the public will not be included.

Nautical Queries

ANSWERS TO NAUTICAL QUERIES

DECK QUESTIONS

1.	A	5. D
2.	G	6. D
3.	A	7. A
4.	A	8. B

NOTE:

a) The sample items selected were those that approximately 50% of the applicants answered incorrectly.

b) Many applicants when working the LAN problems are failing to adjust for the time difference between LAN and 1200 time zone.

c) Many applicants are failing the open book portion of the exam. This seems to indicate that applicants are answering the questions from memory rather than referring to the publications available.

ENGINEER QUESTIONS

1. (B) Candidates frequently pick A indicating they do not read the question and choices completely before marking an answer. Some candidates also pick C which indicates the same error.

2. (A) Candidates pick all the answers at random which statistically indicates this is a good

Where to Go

Do you need Navigation and Vessel Inspection Circulars but don't know where to get them? For information on NAVIC's, send your questions to the following address:

> Commandant (G-M-3) U.S. Coast Guard Washington, D.C. 20590

question. It also indicates candidates have little familiarity with USCG regulations. This is confirmed by the recurring comment received from school instructors that they have not taught USCG regulations in the past.

3. (B) Candidates frequently pick C indicating they do not really understand the function of a flame scanner or fail to read and understand the question before marking an answer. Some also pick A indicating inadequate knowledge.

4. (C) Candidates frequently pick D which is a popular misconception. They also pick A and B indicating inadequate knowledge.

5. (A) Candidates frequently pick B indicating they have not completely read and understood the question before marking an answer.

Annual Index — Volume 31

A Status Report on the Merchant Marine	
Licensing Examination Program.	191
Admiral O. W. Siler Becomes Coast Guard	
Commandant	132
Amendments to Regulations	26,
50, 73, 89, 108, 126, 140, 165, 182,	202
Annual Statistics of Casualties	18
Basic Principles of Operational Guidance for	
Navigational Watchkeeping	197
Be a Smart Duck	3
Captains or Masters?	10
Carriers: If You Spill It, Report It.	179
Casualty Statistics for Commercial Vessels on	
Western Rivers-1973	148
Coast Guard Promulgates EPIRB Regulations	101
Coast Guard Rulemaking	24,
48, 71, 87, 106, 124, 140, 165, 182, 202,	229
Control Your Fate-Ventilate!	40
Developments in Vessel Operational Safety	4
Explosions on MV Venus Kill Master	207
Firefighter Awarded Seamanship Trophy	133
The Future Maritime Distress System	68
Grinding Wheel Care and Safety	9
The Impact of the 1973 IMCO Convention on	
the Maritime Industry	55
International Convention for the Prevention of	
Pollution from Ships, 1973	35
International Ice Patrol	38

The Loss of the Steel Vendor	79
Management's Responsibility for Accident	135
Marine Safety Council Membambin	96
105 199 194 160 170 00	00,
105, 122, 154, 162, 176, 20	10, 212
Merchant Marine Personnel Statistics	194
Modernization of the International Rules of the	
Road	27, 41
The National Commitment to Marine Safety	209
Nautical Queries	228
New Improved Portable Tank for the Marine	
Industry	223
New Labels for Hazardous Materials Trans-	
portation	64
Proposed Changes to the Coast Guard's Dan-	
gerous Cargoes Regulations	14
Puget Sound Vessel Traffic System Regulations	
Published	152
Relief Valve Blows	31
Safe Boating and the States	121
Safety and the Lifeboat Radio	12
Safety: We Are the Enemy	84
Seagoing Rats.	100
Six Drown as Tug Sinks	171
Slack Tanks Cited as Potential Hazard in	
Combination Carriers	147
Thirteen Minutes	187
Tow Job	47
TOM Population and a second se	Ŧ/

MERCHANT MARINE SAFETY PUBLICATIONS

The following publications of marine safety rules and regulations may be obtained from the nearest marine inspection office of the U.S. Coast Guard.¹ Because changes to the rules and regulations are made from time to time, these publications, between revisions, must be kept current by the individual consulting the latest applicable Federal Register. (Official changes to all Federal rules and regulations are published in the Federal Register, printed daily except Saturday, Sunday, and holidays.) The date of each Coast Guard publication in the table below is indicated in parentheses following its title. The dates of the Federal Registers affecting each publication are noted after the date of each edition.

The Federal Register will be furnished by mail to subscribers, free of postage, for \$5.00 per month or \$45 per year, payable in advance. The charge for individual copies is 75 cents for each issue, or 75 cents for each group of pages as actually bound. Remit check or money order, made pavable to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Regulations for Dangerous Cargoes, 46 CFR 146 and 147 (Subchapter N), dated October 1, 1973 are now available from the Superintendent of Documents price: \$5.80.

CG No.

TITLE OF PUBLICATION

- 101 Specimen Examinations for Merchant Marine Deck Officers (Chief Mate and Master) (1-1-74).
- 101-1 Specimen Examinations for Merchant Marine Deck Officers (2d and 3d Mate) (10-1-73).
- 108 Rules and Regulations for Military Explosives and Hazardous Munitions (4-1-72). F.R. 7-21-72, 12-1-72.
- 115 Marine Engineering Regulations (6-1-73). F.R. 6-29-73, 3-8-74, 5-30-74, 6-25-74, 8-26-74.
- 123 Rules and Regulations for Tank Vessels (1-1-73). F.R. 8-24-73, 10-3-73, 10-24-73, 2-28-74, 3-18-74, 5-30-74, 6-25-74.
- 129 Proceedings of the Marine Safety Council (Monthly).
- 169 Rules of the Road-International-Inland (8-1-72). F.R. 9-12-72, 3-29-74, 6-3-74.
- Rules of the Road-Great Lakes (7-1-72). F.R. 10-6-72, 11-4-72, 1-16-73, 1-29-73, 5-8-73, 3-29-74, 6-3-74. 172 174 A Manual for the Safe Handling of Inflammable and Combustible Liquids (3-2-64).
- 175 Manual for Lifeboatmen, Able Seamen, and Qualified Members of Engine Department (3-1-73).
- 176 Load Line Regulations (2-1-71). F.R. 10-1-71, 5-10-73, 7-10-74.
- 182 Specimen Examinations for Merchant Marine Engineer Licenses (7-1-63).
- 182 1Specimen Examinations for Merchant Marine Engineer Licenses (2d and 3d Assistant) (10-1-73).
- 184 Rules of the Road—Western Rivers (8-1-72). F.R. 9-12-72, 5-8-73, 6-27-73, 6-28-73, 3-29-74, 6-3-74.
- 190 Equipment List (8-1-72), F.R. 8-9-72, 8-11-72, 8-21-72, 9-14-72, 10-19-72, 11-8-72, 12-5-72, 1-15-73, 2-6-73, 2-26-73, 3-27-73, 4-3-73, 4-26-73, 6-1-73, 8-1-73, 10-5-73, 11-26-73, 1-17-74, 2-28-74, 3-25-74, 4-17-74, 7-2-74, 7-17-74, 9-5-74, 10-22-74.
- 191 Rules and Regulations for Licensing and Certification of Merchant Marine Personnel (6-1-72). F.R. 12-21-72, 3-2-73, 3-5-73, 5-8-73, 5-11-73, 5-24-73, 8-24-73, 10-24,73, 5-22-74, 9-26-74.
- Marine Investigation Regulations and Suspension and Revocation Proceedings (5-1-67). F.R. 3-30-68, 4-30-70, 200 10-20-70, 7-18-72, 4-24-73, 11-26-73, 12-17-73, 9-17-74. Laws Governing Marine Inspection (3-1-65).
- 227
- 239 Security of Vessels and Waterfront Facilities (3-1-72). F.R. 5-31-72, 11-3-72, 7-8-72, 1-5-73, 1-23-74, 3-29-74, 4-2-74, 5-15-74, 5-24-74, 8-15-74, 9-5-74, 9-9-74.
- Rules and Regulations for Passenger Vessels (5-1-69). F.R. 10-29-69, 2-25-70, 4-30-70, 6-17-70, 10-31-70, 256 12-30-70, 3-9-72, 7-18-72, 10-4-72, 10-14-72, 12-21-72, 4-10-73, 8-1-73, 10-24-73, 12-5-73, 3-18-74, 5-30-74, 6-25-74, 9-20-74, 10-4-74.
- Rules and Regulations for Cargo and Miscellaneous Vessels (4-1-73). F.R. 6-28-73, 6-29-73, 8-1-73, 10-24-73, 257 3-18-74, 5-30-74, 6-25-74.
- 258 Rules and Regulations for Uninspected Vessels (5-1-70). F.R. 1-8-73, 3-28-73, 1-25-74, 3-7-74.
- Electrical Engineering Regulations (6-1-71). F.R. 3-8-72, 3-9-72, 8-16-72, 8-24-73, 11-29-73. 259
- 266 Rules and Regulations for Bulk Grain Cargoes (5-1-68). F.R. 12-4-69.
- 268 Rules and Regulations for Manning of Vessels (10-1-71). F.R. 1-13-72, 3-2-73.
- 293 Miscellaneous Electrical Equipment List (7-2-73).
- Rules and Regulations for Artificial Islands and Fixed Structures on the Quter Continental Shelf (7-1-72). F.R. 7-8-72. 320 323 Rules and Regulations for Small Passenger Vessels (Under 100 Gross Tons) (9-1-73). F.R. 1-25-74, 3-18-74, 9-20-74.
- 329 Fire Fighting Manual for Tank Vessels (1-1-74).
- 439 Bridge-to-Bridge Radiotelephone Communications (12-1-72).

CHANGES PUBLISHED DURING OCTOBER 1974

The following have been modified by Federal Registers:

CG-190, Federal Register of October 22, 1974

CG-256, Federal Register of October 4, 1974.

¹ Due to the paper shortage, certain publications may be temporarily out of stock. Titles 33 and 46, Code of Federal Regulations may be consulted for rules and regulations.

