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of the Marine Safety Council

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Proceedings

of the Marine Safety Council

November-December 1990 ***Vol. 47, No 6***

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Coast Guard personnel set an anchor buoy. (See article on anchor buoys on page 5)

Editor's Note:

Dear Reader:

We are trying to update the Proceedings mailing list to include all individuals and associations who wish to receive it. We also want to know more about our readers to tailor the magazine more closely to their needs. If you wish to continue to receive your bimonthly copy of Proceedings, please fill out the enclosed business-reply postcard, along with the readership survey.

Thank you,
Betty Murphy

Cleanup success story

PA3 J. Mark Sedwick

July 28, 1990 -- Shinoussa, a Greek tanker, and three barges collided in the Houston Ship Channel, Texas. The tanker, a 601-foot double-hulled vessel carrying 29,450 metric tons of jet fuel, was damaged, but did not spill any cargo.

However, the lead barge #3417, owned by Apex Towing Company of St. Louis, Missouri, was badly torn in four places, spilling 700,000 gallons of catfeed #5, a heavy refinery oil, into Galveston Bay, south of Redfish Island.

The oil spill took its toll on wildlife and fishing resources in the bay, and forced the closing of Houston Ship Channel for two weeks at an estimated cost of up to $1 million a day for ship operators.

Initial cleanup attempts

Apex Towing Company initially assumed responsibility for the cleanup, but requested the Coast Guard to take over when they had reached the limits of their liability coverage.

CAPT Thomas C. Greene, the federal on-scene coordinator and commanding officer of the Marine Safety Office (MSO) in Galveston, once again faced a challenge from a major oil spill. (In June, he was responsible for the 3.9 million gallon oil-recovery operations from the Mega Borg explosion in the Gulf of Mexico.)

On August 3, the Coast Guard federalized the cleanup efforts, bringing in additional resources to help in environmentally-sensitive marsh lands. When a federal-on-scene coordinator assumes control over cleanup operations, he can replace contractors hired by the private company. CAPT Greene did not think this was necessary and simply reinforced the existing workforce.

At the outset, Apex, which owned all three barges, had difficulty locating cleanup equipment. Containment boom was not placed

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Containment and deflection booms trapped the oil for vacuum trucks to collect on the shoreline of Umbrella Point in Galveston Bay, Texas.

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around the barges, which were all leaking, until eight hours after the accident.

Skimming vessels had problems operating in the shallow waters of Galveston and Trinity bays, and three out of five had to be repaired early in the week.

Once the spill was federalized, CAPT Greene requested two Chempro shallow-water skimmers from Long Beach, California, and protected oil-soaked areas with deflection and sorbent boom. He also brought in naval architects to assist in salvage operations with barge #3417, which was sinking.

Peak efforts

At the height of the cleanup effort, four contractors deployed several thousand feet of boom and operated seven skimmers in the Point Barrow and Cedar Bayou areas, where most of the oil came ashore. The National Oceanic Atmospheric Administration provided critical updates on oil locations with maps and twice-daily overflights.

The Regional Response Team, composed of federal and state agencies, decided to use bio-remediation on the heavier oil concentrations at Pelican Island and Cedar Bayou. This is a new method involving the deployment of oil-eating microbes, which consume the oil and die, becoming part of the food chain.

The microbes sprayed by the Texas Water Commission appeared to have been successful in breaking up the heavy concentrations of oil in the marsh areas.

The Coast Guard Atlantic Area Strike Team also responded to Galveston's call for help, performing two critical tasks. Part of the team worked with the oil cleanup crews, and the remainder monitored the efforts of salvage workers to reopen the ship channel.

The salvage team discovered large cracks in the hull of the sinking barge when they tried to refloat it. Each time the team tried to lift it by a lifting strap secured underneath, they found further damage and had to suspend operations.

Based on the recommendation of the strike team and the naval architect, CAPT Greene developed a plan to remove the residue oil in the compartments and cut the barge in two. This frustrated ship owners who were anxious to have the channel reopened sooner than it would take to complete the operation.

CAPT Greene then decided to permit one-way traffic in the channel for deep-draft vessels and two-way barge traffic.

Final efforts

The second area of concern for the Coast Guard was the large amount of heavy oil washing ashore into estuaries, where birds, fish and shellfish struggled for survival.

The strike team devised a strategy combining sorbent and deflection boom to confine the spilled oil in the vicinity of the soiled beaches, where it could be sucked up with vacuum trucks. By August 7, the trucks and skimmers had collected nearly 400,000 gallons of oil and water mixture.

Many Texas citizens volunteered to clean up the beaches, while the Audubon Society oversaw the cleanup of oiled birds. Crowley's Fish Camp in Beach City, Texas, allowed the Coast Guard to use its property at Umbrella Point for a command post.

The Texas Department of Health closed Galveston Bay to fishing and shrimping until samples could be tested. Fin fishing was reinstated after 24 hours, but the ban on shrimp and other shellfish stretched over a longer period of time, to the frustration of commercial fishermen.

Coast Guard personnel direct oil clean up efforts at Galveston Bay shoreline.

For the second time in eight weeks, national attention was focused on Coast Guard efforts to contain a major spill, and protect the Galveston fishing community and tourist industry from financial and environmental catastrophe.

Still recovering from the manpower drain caused by the Mega Borg explosion, MSO Galveston scrambled to provide resources for the emergency and still maintain a skeleton staff together to handle normal day-to-day office responsibilities.

By August 10, virtually all of the oil had been collected and the barge was being moved away from the ship channel. CAPT Greene and his staff could breathe a sigh of relief that another major oil spill had left the fishing and tourist industries bruised, but intact.

PA3 J. Mark Sedwick is a public affairs specialist assigned to the Eighth Coast Guard District, New Orleans, Louisiana. He took the photographs accompanying this article.

Watertight doors slam

LCDR Marvin Pontiff

Watertight doors -- (Above) Open (Left) Closed

During a recent examination on board a foreign passenger vessel moored in Juneau, Alaska, a Coast Guard inspector was almost crushed by a watertight door when it closed faster than he had anticipated.

At the time, the inspector was observing a fire drill in the crew's mess. The door was located between the mess and a passageway forward. It had been closed by remote control from the bridge.

Simulated "casualties" were carried by stretcher through the watertight door as part of the drill. The door operation was switched to local remote control for the exercise.

Near the end of the drill, the inspector and stretcher team were standing in the passageway in front of the closed watertight door. Operating the control, the inspector opened the door halfway so he could step through to look for a ship's officer. He let go of the control mechanism and the door began to close.

The inspector couldn't locate the officer and stepped back through the door. He got pinned, and couldn't get loose or reach the control to reopen the door. Fortunately, a crew member saw what was happening, grabbed the control and opened the door in time to save the inspector's life.

The hectic pace of the fire drill along with the crowding of a large group of people, all concentrating on the simulated stretcher casualty in a narrow passageway, probably helped to bring this near tragedy about. (Only one of about six drill participants near the doorway noticed the inspector.)

However, the speed of the door closure was a contributing factor. When tested after the accident, the door went from fully open to fully closed in about six seconds, closing at a rate of five inches per second.

Current United States regulations [46 CFR 163.001-5(b)(4)] require sliding watertight doors operated by remote control to close at an approximate uniform rate of one to two inches per second.

The 1989 amendments to the 1974 Safety of Life at Sea (SOLAS) convention, which will be effective on February 1, 1992, call for a closing time of 20 to 40 seconds, plus the installation of an alarm. (A regulatory project is in the works to revise the federal regulations cited above to conform to the SOLAS amendment.)

LCDR Marvin Pontiff is a project officer in the Merchant Vessel Inspection Division of the Coast Guard's Office of Marine Safety, Security and Environmental Protection.

Handle anchor buoys with care

Clara Nutter

One early morning in December 1987, a crew on a tug was setting multiple anchors in the Gulf of Mexico to stabilize a derrick barge. The tug was maneuvering into position to hook up a 13-ton anchor buoy suspended a few feet above the water from a crane on the barge. Two deckhands were on the main deck of the tug, waiting to work on the huge #7 buoy.

One of the deckhands was leaning over the tug's bulwark near the port quarter, when suddenly the tug rode down the trough of an eight-foot swell and came up right under the buoy. The seaman was caught and crushed between the buoy and the bulwark. He was killed instantly.

When the tug's captain saw the buoy looming overhead, he yelled, "Watch out!" to the deckhands. One was able to heed the warning and fall to the deck out of danger. It was too late for the other.

Later when the captain of the tug was asked what could have been done to avoid the accident, he replied, "I don't know of anything, really. It's standard procedure. It's something that's done over and over, so, if there was anything, I don't know what it is. It's hard to say.

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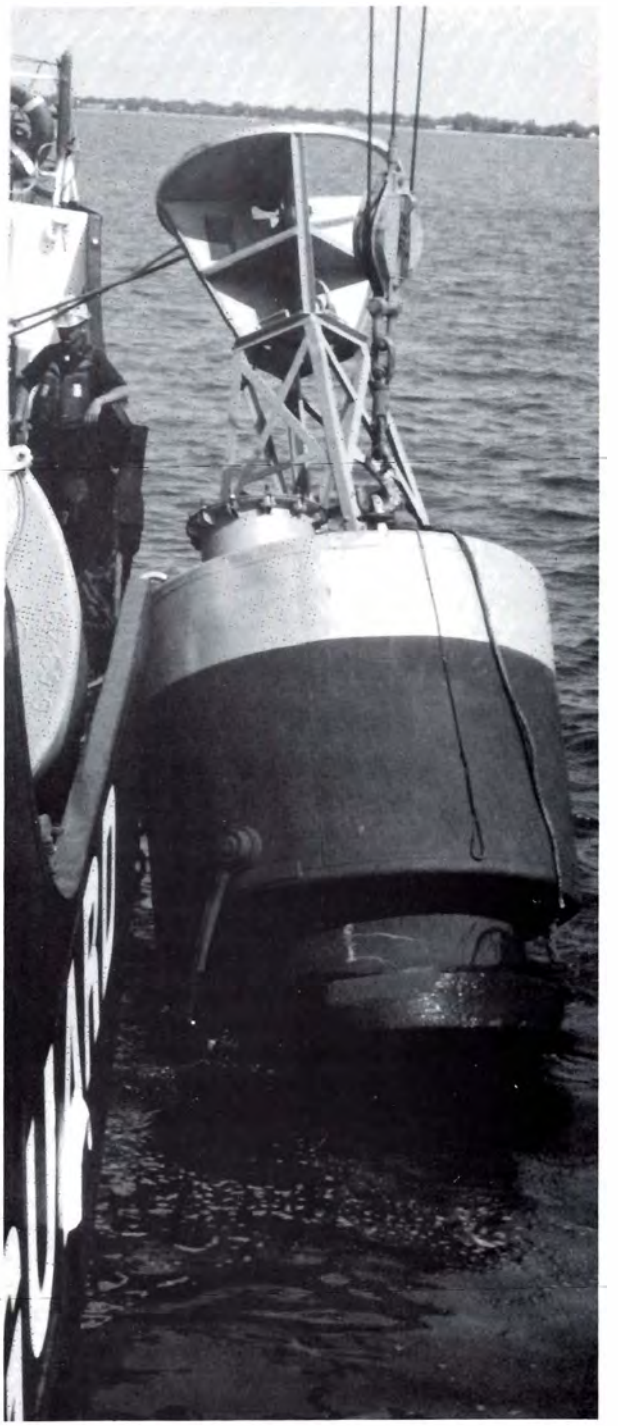
Both deckhands were about 22-years-old, and had been ordinary seamen for less than a year The deckhand who was killed had never handled anchors before.

Neither had worked anchors beside an experienced crew member, and had been given no instructions other than rudimentary on-the-job guidance.

The Coast Guard investigating officer concluded that the accident was mostly due to the failure of the operating company and the vessel captain to adequately train and supervise the seamen.



The anchor buoy above is similar to the one described in this article.

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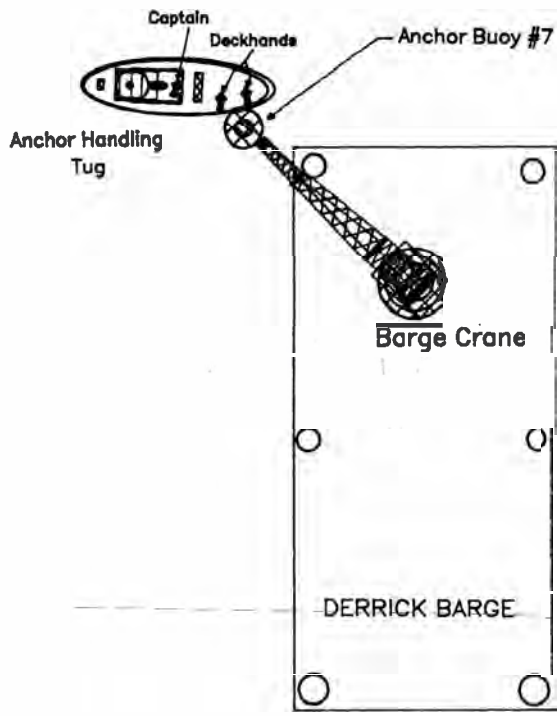

Sketch of incident
(Not drawn to scale)

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Responsibility

The captain bears the primary responsibility for the safe running of the vessel. He must make sure that safe working practices are always adhered to and report all crew training needs to the operating company of the vessel.

The operating company must enforce safety management policies on all vessels and provide any special training necessary for hazardous duty, such as anchor handling.

Safety course

Following the anchor buoy tragedy, the operating company of the tug took extensive steps to improve safety training for its vessel crews, including a five-day course titled, "New hire training and safety orientation program."

The course includes the following:

1. Review of the operating company's safety program.
2. Introduction to basic seamanship skills, emergency drills and procedures, and lifesaving equipment.
3. Orientation on dangers aboard seagoing vessels.
4. Identification of responsibilities for personal safety.
5. Demonstration of safe work practices.

Experienced captains conduct the course, which includes lectures, video presentations and hands-on training.

Anchor buoy handling is emphasized in the course, which serves as an example for other vessel operating companies to follow for the safety of their own ships and crews.

Clara Nutter is a commercial vessel safety analyst with the Marine Investigation Division of the Coast Guard's Office of Marine Safety, Security and Environmental Protection.

Crew levels in the 1990s

CAPT Frederic J. Grady III

Is there an adequate number of crew members on today's automated foreign and domestic merchant vessels? How do we achieve the right balance and regulate it accordingly?

In the past

Before automation, the Coast Guard set minimum manning requirements for United States flag vessels based on the number of crew members necessary to navigate the vessel between ports. Operating companies placed additional crew members aboard for maintenance, cargo handling and other activities.

In the 1960s, United States vessels typically carried 50 percent more crew members than was required by the Coast Guard.

Recently

In recent years, in efforts to remain competitive, operating companies have attempted to reduce operating costs, especially in vessel crewing.

Automation, systems-monitoring and other labor-saving devices have eliminated the necessity for various personnel. This process evolved over a number of years

Evolution

More than 20 years ago, boiler management systems were installed, eliminating the need for watchstanding firemen/water tenders.

Installed deck labor-saving devices, watch-call systems, bridge sanitary facilities and equipment requiring less maintenance resulted in fewer non-watchstanding personnel on board.

Also, the reliability of automated slow-speed diesel propulsion permits vessels to be approved for operation with periodically unattended enginerooms.

The result is that many United States vessels are now operated with crews at or near the minimum numbers required by the Coast Guard.

Able-bodied seaman works on cargo gear.

Some crew members and labor unions allege that there are two few workers to perform all the tasks necessary to operate the vessel and, at the same time, maintain it.

In port

Today's fast turnarounds have caused in-port activities to become much more intense, causing high stress and fatigue. Some companies agree that in-port periods can be very busy for certain members of the crew, especially when others are permitted to go ashore.

On the other hand, companies also point out that in-port activities take place in a relatively short period of up to 24 hours, and that no one is required to work more than eight hours per day. Some companies claim that much vessel maintenance is performed by shoreside personnel.

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Safe operation

When Congress recodified the shipping statues, 46 U.S.C. 8101 was revised to read, "the certificate of inspection. . . shall state the complement. . . for safe operation." This obviously covers time and activities in port.

When deciding minimum manning requirements, the Coast Guard must review a vessel's total operation, considering heavy in-port activities, along with the sophisticated automation systems on the vessel. There must always be sufficient personnel to safely manage cargo-transfer activity

Trades and routes

The Coast Guard presently sets a single manning scale for the typical United States vessel, which is then permitted to operate in any trade on any route.

Should we be taking the trades and routes into consideration? For example, it could be that vessels on the coastwise trade, making numerous port calls in a few days, should carry more crew members than a vessel in foreign trade with infrequent port calls.

Competitive status

The whole manning level equation on ships is seriously complicated by the need for United States vessels to remain competitive in world markets. Taking into account the high costs involved in crewing a ship and the justifications offered by automation for reducing crews,it is little wonder that many United States vessels retain minimum crews.

Foreign crews cost significantly less, and, furthermore, some maritime nations, especially newcomers to the field, are resorting to "crews of convenience" to further undercut the market.

Concerns

The Coast Guard is concerned, not only about manning levels on those ships, but also about the competence of the crews in question. Where United States seamen, officers and crew alike can be proud of their level of training and expertise, the ships and industries they serve are being seriously undermined.

Considerations

Establishing minimum manning requirements is going to demand much more consideration than in the past. Each vessel will have to be treated as a separate entity, with manning levels influenced less by the similarity of the vessels than by the nature of their trade.

CAPT Frederic J. Grady III is Chief, Merchant Vessel Personnel Division, Office of Marine Safety, Security and Environmental Protection.

Deck maintenance man scrapes rust under the hatch-comb. Photo by Frank Alexander, National Maritime Union.

Extinguisher nearly puts out a life

Thomas J. Pettin

A few years ago, as brine water was being off-loaded from an oil-production platform to a transfer tank aboard an offshore supply vessel, an explosion occurred in the tank.

Just before the blast, the chief engineer detected a strong odor he couldn't identify. He immediately ordered the engine room ventilation blowers shut down to prevent a spark from igniting the vapors.

When a portable gas explosimeter indicated dangerous levels of explosive vapors around the transfer tank, the ship's master decided to inert the tank by flooding it with carbon dioxide (CO_2) gas.

A deckhand climbed to the top of the tank with a 15-pound CO_2 fire extinguisher and placed the nozzle into a hatch cover opening. He closed that cover as far as he could over the nozzle before he released the CO_2 gas. Seconds later, the tank exploded, blowing the man 30 feet into the air.

The deckhand suffered burns and multiple fractures, but survived. A small fire ignited by the explosion was quickly extinguished. The incident could have been far more serious.

What went wrong

The Coast Guard's investigating officer found the contents of the ruptured tank contaminated with crude oil and entrapped gas.

The proximate cause of the accident was determined to be the ignition of explosive vapors by the discharge of static electricity. However, the exact source of this electricity could not be ascertained.

In all probability, the ejection of compressed CO_2 gas generated static electrical charges with enough energy to ignite the atmosphere in the tank to cause an explosion. Condensed water probably frosted on the nozzle during the release of the gas, and electrical charges grounded when the nozzle came into contact with the steel tank.

It is also possible that a spark "jumped" from the metal container holding the CO_2 gas and caused the explosion.

A lack of knowledge among those involved in the transfer operation about the static electrical properties of CO_2, (especially when released from an extinguisher), contributed to the casualty.

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The sides blew out of this holding tank in a similar explosion.

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Anyone required to work in a cargo tank or other enclosed space aboard a vessel should be aware of this hazard.

As a matter of fact, a tankerman is required to be present when combustible liquids are transferred to a fixed tank on board an offshore supply vessel. The master, by virtue of his license, is considered to be a tankerman, and should have known that static electrical charges can accumulate on the nozzle of a fire extinguisher discharging CO_2.

Also contributing to the incident was a lack of adequate monitoring devices aboard the production platform to prevent the transfer of contaminated fluids. The brine water should have been instrument analyzed by a trained individual to ensure its cleanliness.

The casualty could have been avoided in the first place if the fluids had been passed through equipment designed to remove oil, and flammable liquids and gases from the water.

Solutions

There are steps to help prevent similar accidents.

1. ***Supervisors should warn personnel of the risk of explosion in discharging CO_2 fire extinguishers inside cargo tanks or other spaces containing flammable gases.***

2. ***All fluids transferred from an exploratory or production oil well to a vessel should be treated as hydrocarbon-based.*** *A small amount of flammable liquid left in a holding tank can vaporize to within an explosive range and be set off by agitation.*

3. ***Prior to a liquid cargo transfer, tanks should be checked with an explosimenter.*** *An explosion can be triggered off by ANY ignition source, including sparks from a static charge.*

NOTES: Sight and odor tests alone can't always detect odor-free natural gas. Some chemical vapors deaden the sense of smell, others are odorless, like hydrogen sulfide and propylene oxide.

Procedures for neutralizing explosive substances are explained by the National Fire Protection Association in their instruction booklet #306, entitled, *Control of Gas Hazards on Vessels.* (The association is located at 470 Atlantic Avenue, Boston, Massachusetts 02210.)

Conclusion

This casualty may have been avoided had the tank hatches been closed and the tank vented through installed vents. Oddly enough, the explosion was caused by actions intended to prevent such an occurrence.

Thomas J. Pettin is a program analyst in the Marine Safety Evaluation Branch of the Coast Guard's Office of Marine Safety, Security and Environmental Protection.

It must be understood that routine transfer operations are always hazardous. Also, explosive vapors in a confined space are always dangerous.

Rules and regulations -- How the Coast Guard makes them

LCDR Deac Jones & Bruce Novak

"The Coast Guard did not give us enough time to make the necessary arrangements to comply with the regulation."

"The Coast Guard did not publish the regulation as quickly as it should."

"The Coast Guard is imposing requirements that serve no useful purpose and will have an adverse impact on me."

"The Coast Guard is being unreasonably lenient towards industry and is failing to exercise its responsibility."

These are some of the complaints received by the Coast Guard concerning how it makes and enforces regulations. They can all best be answered by a step-by-step description of how the Coast Guard meets its regulatory responsibilities and how the public can participate in the rulemaking process.

Legal authority

Although never envisioned by the drafters of the constitution, issuing regulations is essentially an extension of the legislative process.

Article 1, Section 1 of the constitution specifically vests all legislative power in the Congress. However, the legislative branch has found it necessary to delegate some responsibilities to federal executive branch departments and agencies. Typically, Congress delegates regulatory authority to an agency when specific technical knowledge is needed to carry out legislation under consideration.

The Coast Guard is part of the executive branch of government under the Department of Transportation (DOT). Because of constitutional separation of powers, the Coast Guard cannot issue regulations covering a particular subject just because it has an interest in that area.

The Coast Guard may publish regulations only when authorized by Congress to do so. Then the regulations have the force of law.

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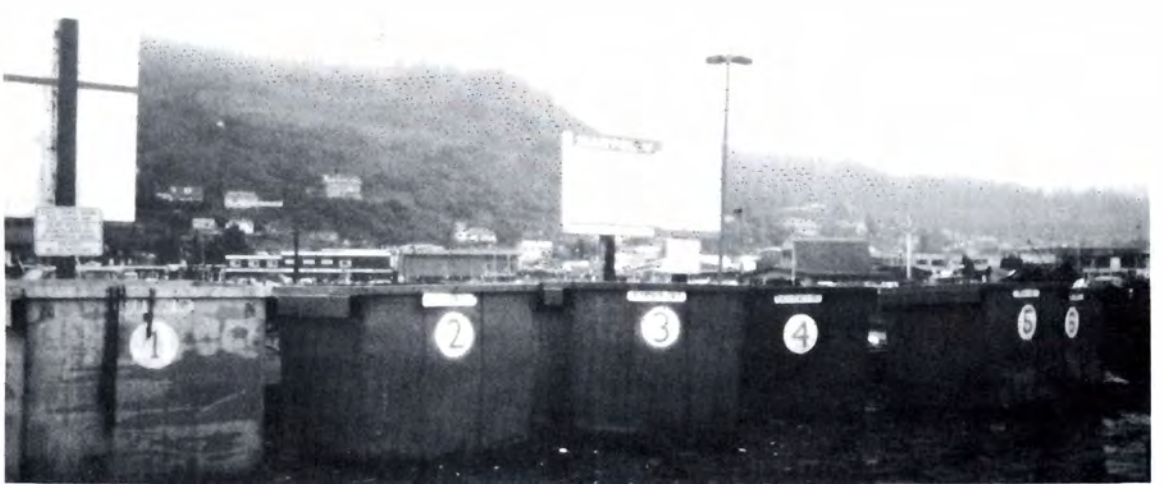
Ports are required by the Marine Plastic Pollution Research and Control Act to provide debris collection stations. This one in Kodiak, Alaska, has separate bins for recycling plastics, rope, metal, wood and other materials.



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Congress may either delegate its legislative power to the President, who further delegates it to the Coast Guard. Or Congress delegates authority to the secretary of DOT, who then passes it on to the Coast Guard. Delegations of regulatory authority are made in laws passed by Congress, which require some action by the Coast Guard.

In some cases, the delegations stem not only from domestically-generated laws, but also from international laws. The Marine Plastic Pollution Research and Control Act, for example, carried out the garbage pollution provisions of Annex V of the International Convention for the Prevention of Pollution from Ships (MARPOL).

Annex V had been approved by Congress and, accordingly, was the law of the land. In the act, Congress directed the secretary of the department in which the Coast Guard is operating to prescribe regulations to carry out the act. The Coast Guard was selected because of its knowledge and experience with the marine industry and pollution prevention.

In a situation such as this, the Coast Guard responds to the wishes of Congress and the international community. Although the Coast Guard has some discretion in how the regulations are written, the broad requirements are already determined before the regulations are drafted.

The degree of flexibility the Coast Guard has in writing regulations depends largely on how Congress words the statutes which direct the action. In recent years, Congress has set out in great detail requirements for the regulations, thus determining what is in the public interest. Therefore, the Coast Guard is responsible for carrying out the will of the elected representatives.

Regulatory development

The process of developing regulations may begin once the legal authority to regulate has been delegated. The Coast Guard develops and publishes regulations via an informal notice and comment process mandated by the Administrative Procedure Act (5 U.S.C. 551 *et seq.).*

The Administrative Procedure Act requires that an agency issuing a regulation must; 1) publish a notice of proposed rulemaking in the *Federal Register*, and 2) provide interested persons an opportunity to participate in the rulemaking through submission of data, views or arguments.

The act requires that an executive agency publish a notice of proposed rulemaking, which notifies the public of the specific regulatory requirements which the agency is proposing, and invites pubic comment for a period of at least 30 days. The Coast Guard usually allows the public 45 days or longer to comment.

The *Federal Register* notice must include; 1) a statement of the time, place and nature of public rulemaking proceedings, 2) reference to the legal authority under which the rule is proposed, and 3) either the terms or substance of the proposed rule, or a description of the subjects and issues involved.

This notice and comment process is the law's way of insuring that executive agencies consider the public's views, just as elected representatives must consider their constituents' letters.

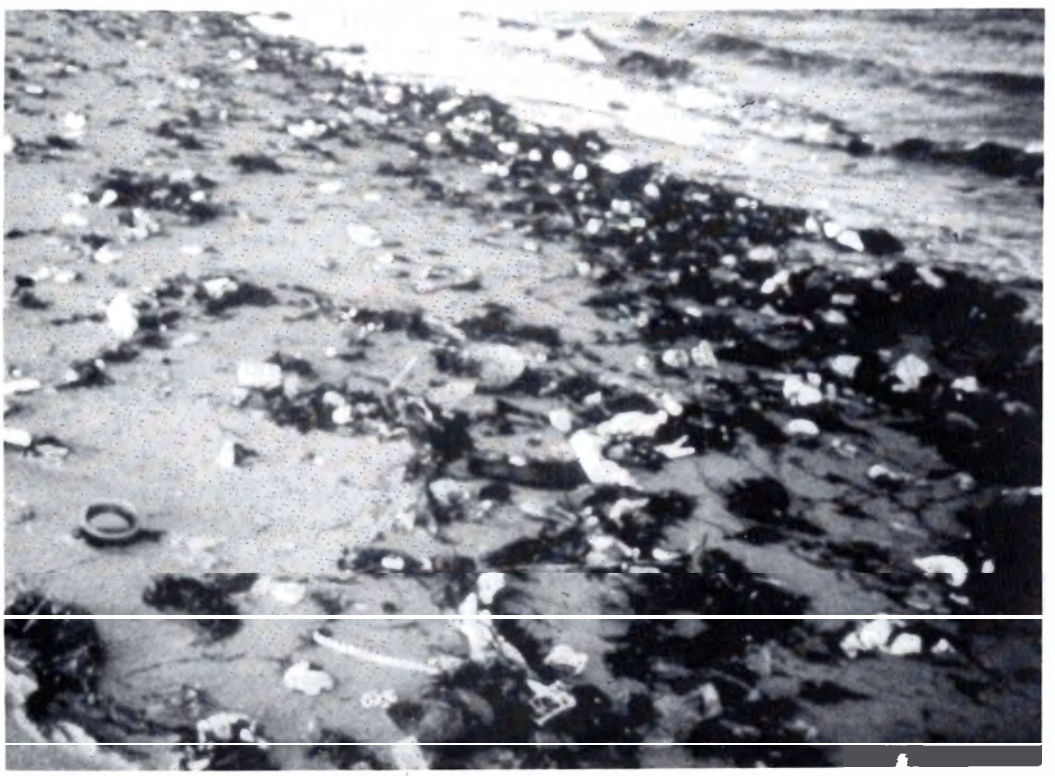
Public information

Before the *Federal Register* was established in 1935, there was no official way the federal government could inform the public about new and proposed rules. In fact, some agencies made no effort to publicize regulations, which resulted in a confused public and a lack of compliance with regulations.

To remedy this situation, the *Federal Register* Act created a publication to serve as the government's official notification to the public of proposed and final rules

There is a problem, however. Most of the public is either not aware of the *Federal Register* or does not read it regularly.

The Coast Guard publicizes important rulemaking projects through press releases distributed to industry and trade publications. The "Keynotes" section of *Proceedings* also alerts its readers of pending and final rulemaking activities.



The new legislation will hopefully prevent shoreline littering.

In some cases, the Coast Guard will send direct mail to interested parties. This procedure, however, is expensive and under a limited budget. Therefore, such mailings are reserved for rules of particular interest to segments of the public who would not ordinarily have access to the *Federal Register*.

To further publicize rulemaking and encourage public involvement at an early stage, the Coast Guard will occasionally publish an advance notice of proposed rulemaking in the *Federal Register*. This notice solicits public involvement when the regulations are first contemplated -- well before they are put into any form. (Without public response at this level, some proposals never get anywhere.)

When there is a high level of public interest in a notice of proposed rulemaking, the Coast Guard frequently conducts public hearings in various locations throughout the country.

Public hearings serve several purposes:

A) They give the public direct access to the Coast Guard rulemakers.

B) They give the Coast Guard decision makers a first-hand look at public reactions.

C) They often give both the regulators and the regulated a keener appreciation of the part the rules will play in meeting national objectives, whether or not they will be successful in doing this, and how much that success will affect the daily lives of the public.

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Once in a while, the Coast Guard will issue an interim rule to respond to emergency situations or to legal requirements to publish regulations by a specific date. This interim rule not only allows the Coast Guard to meet statutory deadlines, but it provides a mechanism to receive additional public comments for any necessary amendments.

The Marine Plastic Pollution Research and Control Act provides a good example of the process the Coast Guard follows in issuing regulations.

Marine Plastic Pollution Research and Control Act

Annex V Application

Timetable

Dec. 29, 1987	*Congress passed act*
June 24, 1988	*Advanced Notice of Proposed Rulemaking published*
Oct. 27, 1988	*Notice of Proposed Rulemaking published*
Nov. 1988	*Public hearings held in Washington, DC, Houston, Texas and Seattle, Wash.*
April 28, 1989	*Interim Rule with request for comments published*
Sept. 4, 1990	*Final Rule published*

Decision making

The rulemaking process has multiple layers of review through which decision makers can alter or withdraw the proposal.

Before a proposal is even published as a notice in the *Federal Register*, it is reviewed at Coast Guard headquarters by senior officials who consider its policy implications.

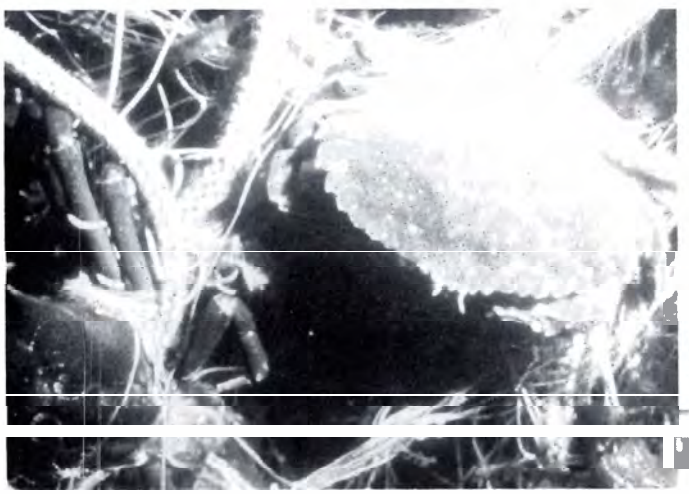
After each stage of public participation, the comments are reviewed and evaluated to see if the rulemaking is flawed in concept or execution.

Even after the Coast Guard is satisfied with a rulemaking, it must be reviewed by DOT and the Office of Management and Budget before it can be published in the *Federal Register* as a notice of proposed rulemaking or as a final rule. These reviewers examine policy implications of the regulation and make sure that all applicable legal requirements are obeyed.

For example, the National Environmental Policy Act requires federal agencies to consider the environmental effects of their actions. This law requires agencies to prepare either environmental impact statements or assessments to document the expected environmental effects of their proposed actions.

The Regulatory Flexibility Act and Executive Order 12291 require the preparation of a regulatory flexibility analysis for all rulemaking action, and a regulatory impact analysis for major rules. These are required to assess the impact of the proposed rule on the economy or on small businesses.

For major projects, the Coast Guard sometimes finds it necessary to contract with outside agencies to prepare a regulatory evaluation and environmental impact statement. These contractors are used when time limitations, resources constraints or availability of expertise make preparation by the Coast Guard impractical.



It is now illegal to contaminate our waterways with debris such as the synthetic fibers entangling the crabs (left) or plastic lines fouling up the boat propeller (below)

Conclusion

The items discussed relate only to administrative steps in the regulatory process. Most packages also require a significant amount of time for study of the problem, finding the right approach and obtaining internal approval. Indeed, developing and publishing regulations is by no means a quick process.

In many cases, the Coast Guard would like to speed up the process, but not at the expense of not providing an adequate period for public input or not complying with legislative or administrative requirements.

The Coast Guard would like to be as responsive to the public as possible, but it must be noted that it serves many publics with varying interests. Regulatory initiatives lauded by one group may be bitterly opposed by another.

Crafting a regulation which is effective and fair is not easy, and the result may not be popular in all quarters. In fact, it is impossible to perfectly balance the needs of one group against those of another, and please all parties at all times. This is the inevitable result of our democratic form of government and our national philosophy of providing the greatest good to the greatest number while protecting the rights of the minority.

By using the opportunities guaranteed by law, the public can be heard and heeded, but the process is, as it must be, sometimes painfully slow, and the result perceived by some affected parties as inequitable.

In spite of these problems, the process strives to be as responsive and evenhanded as possible through public involvement

LCDR Deac Jones is a regulatory project manager with the Policy and Standards Development Branch, Port Safety and Security Division of the Coast Guard's Office of Marine Safety, Security and Environmental Protection.

Bruce Novak is the chief of the Regulatory Administrative Branch, Regulations and Administrative Law Division of the Coast Guard's Office of Chief Counsel. He is also the executive secretary of the Marine Safety Council.

Chemical of the Month

Methane

Classified as a flammable gas (2.1) in the IMDG code, methane, in its standard state, is a colorless, odorless and tasteless gas. It is also known as marsh gas, natural gas, methyl hydride and fire damp. Methane's chemical formula is CH_4.

On the average, natural gas is comprised of 75 percent methane, and as high as 95 percent in some Pennsylvania gas fields. Methane is also found in coal gas, and the anaerobic decomposition of agricultural by-products and manure.

Uses

The major uses for methane are for heating, making ammonia and manufacturing synthetic products. In using the gas to make other products, the hydrocarbon reacts with water to produce carbon monoxide and hydrogen gas: $CH_4 + H_2O <--> CO + 3H_2$. These products are used to produce ammonia, oxochemicals, acetylene and methanol.

Methane is also used to produce hydrogen cyanide from the reaction: $CH_4 + NH_3 <--> HCN + 3H_2$. In this reaction, methane and ammonia are reacted at 1250°C with a platinum catalyst. When chlorinated, methane produces carbon tetrachloride, chloroform, methylene chloride and methyl chloride.

Health hazards

Asphyxiation is methane's most dangerous health hazard, because in high concentrations of methane gas, the oxygen may be displaced.

In its liquid state, methane may cause frost bite if it comes in contact with the skin. Methane vapor is not irritating to the eyes or throat.

Inhalation may cause headaches, fatigue, loss of consciousness, convulsions and possibly death. To stop these effects, the victim only needs to be brought to fresh air.

Environmental effects

The effects of methane on the environment are few. Methane is not found to be harmful to wildlife or waterfowl. It has no biological oxygen demand and does not build up in the food chain.

Sunfish and minnows did not experience any harmful effects when exposed to a saturated solution of methane in fish toxicity tests.

Fire hazard

Methane is very flammable. When in its gaseous state, it forms an invisible vapor cloud. If ignited, a flashback along the vapor trail is possible.

Methane also reacts explosively with bromine when exposed to direct sunlight. To fight a methane fire, shut off the source and use water spray to knock down the methane cloud.

Transportation

Methane is mostly transported by pipeline, although it is sometimes shipped in cylinders or railway tank cars. When being shipped, methane does not require an inert atmosphere, but a safety relief is required for venting.

When methane is shipped by rail tank car, the car must be double-walled, annulus insulated and evacuated to a least 13kPA. When shipped in cylinders, methane must be in a liquefied state at -162°C.

The Department of Transportation specification numbers for approved cylinders are: 3A1800, 3AA1800, 3AAX1800 and 3E1800.

Bulk shipments of methane are regulated by the Coast Guard under 46 CFR Subchapter O. When shipped in break bulk, D.O.T. regulates methane under 49 CFR Subchapter C.

Methane

Chemical name: Methane

Formula: CH_4

Synonyms: Marsh gas, natural gas, methyl hydride and fire damp

Physical properties:

Boiling point:	-161.5°C	-258.7°F
Freezing point:	-182.5°C	-296.5°F
Vapor pressure	N/A exists as a gas	

Threshold limit values (TLV)

Time weighted average:	Not pertinent

(Methane is an asphyxiant, the limiting factor as available oxygen)

Short term exposure limit:	Data not available

Flammability limits in air

Lower limit:	5.0% volume
Upper limit:	15.0% volume

Combustion properties

Flashpoint:	Flammable gas	
Autoignition temperature:	650°C	1200°F

Densities

Vapor (air = 1):	.55
Specific gravity (at -160°C)	.422
density (at -109°C):	.415

Identifier

U.N. number	1971
CHRIS Code	MTH
Cargo compatibility group	Paraffin

This article was written by a cadet at the Coast Guard Academy as a special project in chemistry for LT Thomas Chuba.

New Publications

Yachting - The History of a Passion

If you are looking for a great "coffee table" book on yachts and their history, *Yachting - The History of a Passion* by Robin Knox-Johnston is a perfect selection. From the great J-Boats to the modern 12-meters, from Olympic victories to transoceanic excitement, this book will delight all who enjoy the thrill of yachting.

Tracing the origins of yachting to Holland in the 17th century, Knox-Johnston explores the development of the competitive sport from its first challenge in 1851, the America's Cup race -- now the greatest international yachting event.

Featuring pictures and descriptions of famous yachts and yachtsmen of all times, the author highlights offshore and ocean racers, single-handlers and multi-hulls. He also chronicles the growth of yacht clubs, important races and records, and traces the development of cruising.

The author of numerous books on sailing and yachting, Knox-Johnston was the first man to sail nonstop alone around the world (1969).

A wealth of specially commissioned illustrations, including photographs, paintings and charts, bring the history of yachting to life on nearly every page.

A splendid gift for the yachting enthusiast, *Yachting - The History of a Passion* was published by William Morrow & Company on October 22, 1990.

Yachting, The History of a Passion can be purchased for $39.95 from:

William Morrow & Company
105 Madison Avenue
New York, New York 10016
Telephone: (212) 889-3050

Watchstanding guide

The *Watchstanding Guide for the Merchant Officer,* written by CAPT Robert J. Meurn, looks at the duties and responsibilities of deck watch officers from all angles. Nine chapters highlight voyage planning, record keeping, bridge simulation training and other areas of interest, along with case studies of marine casualties.

Two appendices contain standards on training, certification and watchkeeping for seafarers, along with an example of bridge standing orders.

According to the author, the guide "was written to help ease a cadet's or able bodied seaman's transition to an officer in charge of a watch aboard a merchant vessel." It would be useful for any pilot, watchstander, casualty investigator or "armchair" merchant mariner.

Published by Cornell Maritime Press on September 13, 1990, the *Watchstanding Guide for the Merchant Officer* costs $27.50. It can be obtained from:

Cornell Maritime Press
P.O. Box 456
Centreville, Maryland 21617

Bridge procedures

The second edition of the booklet, *Bridge Procedures Guide,* has been published by the International Chamber of Shipping.

Encouraging the use of sound bridge procedures, the publication provides practical guidance on bridge organization, passage planning, duties of the officer of the watch, the operation of navigational equipment and other pertinent subjects. Bridge and emergency check lists are also included.

Bridge Procedures Guide may be obtained from:

Witherby and Co. Ltd.
(Marine Publishing)
Book Department, 2nd Floor
32-36 Aylesbury Street
London ECIR OET
England

Maritime casualties

According to the Coast Guard, most maritime accidents occur under benign conditions, i.e., clear weather, among other vessels and with well-established communications. *Maritime Accidents: What Went Wrong?,* a 134-page book by Edward T. Gates, explains physical forces and phenomena that contribute to marine casualties in restricted waterways.

According to Gates, a vessel entering a restricted waterway is acted upon and reacts to physical phenomena that cause it to settle or squat, be pulled or sucked to the near bank and be skewed in the channel. Waves and surges generated by the ship can endanger other craft, shore structures and channel banks. Moreover, these effects are constantly changing.

Each phenomenon -- squat, bank suction and vessel attitude, ship interaction, ship-generated waves and emergency stopping -- is the focus of a chapter. An actual accident case history is analyzed, and charts and diagrams provide further clarification of these phenomena.

The last chapter informs engineers how they can use the information in the book for channel and marine shoreside facility construction and maintenance as a means of eliminating, or at least minimizing, maritime casualties.

Maritime Accidents: What Went Wrong? may be purchased for $55 (plus postage and handling) from:

Gulf Publishing Company
P.O. Box 2608
Houston, Texas 77252
Telephone: (713) 529-4301

Emission control

The American Bureau of Shipping has published a new 14-page *Guide for Cargo Vapor Emission Control Systems on Board Tank Vessels.* The guide is available free of charge from:

American Bureau of Shipping
Publications Section
45 Eisenhower Drive
P.O. Box 910
Paramus, New Jersey 07653-0910
Telephone: (201) 368-9100

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Ornamental knots

A new edition of *The Book of Ornamental Knots* by John J. Hensel introduces the art of ornamental ropework in a clear, precise manner with more than 600 photographs.

First published in 1973, the book provides step-by-step instructions for the basic knot -- the Carrick Bend, Josephine Knot or Sailor's Breastplate Knot. A variety of items from belts to sandals and pocketbooks can be made by the beginner from this knot and its many variations.

The Book on Ornamental Knots is available at nautical bookstores for $19.95 or from:

Cornell Maritime Press
P.O. Box 456
Centreville, Maryland 21617

Vessel fire fighting

The *Guide for Landbased Fire Fighters Who Respond to Marine Vessel Fires* has been developed by the National Fire Protection Association, in cooperation with the Coast Guard.

Directed to municipal fire response agencies, this training guide identifies the unique aspects of vessel fire fighting, and deals with the roles, strategies, tactics, preplanning and stability of the landbased fire fighters. It would be helpful in assisting in the development and review of local fire-fighting contingency plans.

The guide is available for $15.75 from:

National Fire Protection Association
1 Batterymarch Park
P.O. Box 9101
Quincy, Massachusetts 02269-9101
Telephone I-800-344-3555

Emergency response guide

The Government Printing Office now has copies of the *1990 Emergency Response Guidebook* for carriers to comply with Department of Transportation Emergency Response Communication Standards (Docket HM-126C), which will be effective on December 31, 1990.

Earlier this year, several changes were made to the hazardous materials regulations, which include new requirements for emergency response information. The new rules call for additional emergency response information on shipping papers and packages, as well as maintenance of emergency response information on transportation vehicles and at transportation facilities.

These changes are intended to improve hazard communications by ensuring that more detailed information actually accompanies shipments of hazardous materials.

The effective date for the emergency response standards was postponed from September 17 to December 31, 1990. One reason for this delay was to provide carriers a lead time of at least 90 days from the date of publication to assure system-wide distribution of the guidebook.

The American Trucking Association and Yellow Freight System were among those who petitioned for the delay to make sure the guidebook was available before the rules were put into effect.

The *1990 Emergency Response Guidebook* (GPO Stock Number 050-000-005348) may be obtained for $5 from:

Superintendent of Documents
Government Printing Office
Washington, D.C. 20402

Vessel inventory

The *Vessel Inventory Report, as of July 1, 1989,* prepared by the Maritime Administration, contains information on all United States-registered oceangoing merchant ships of 1,000 gross tons and over.

Limited copies of the report are available at:

Maritime Administration
Office of Trade Analysis and Insurance
Division of Statistics - Room 8117
400 Seventh Street, S.W.
Washington, D.C. 20590
Telephone (202) 366-2400

Nautical Queries November-December 1990

The following items are examples of questions included in the Third Mate through Master examinations and the Third Assistant Engineer through Chief Engineer examinations:

Engineer

1. Which type of soap grease offers the maximum chemical stability and resistance to separation at temperatures between 250 and 300° F?

A. Lime soap grease
B. Calcium soap grease
C. Sodium soap grease
D. Lithium soap grease

2. Refrigerant is normally subcooled in a refrigeration or air conditioning system condenser to _____.

A. maintain adequate back pressure on the evaporator coil.
B. prevent the refrigerant flashing to a vapor before the expansion valve.
C. reduce refrigerant volume in the system.
D. reduce compressor load.

3. If the length of a wire is halved and cross-sectional area is doubled, the resistance will be?

A. quartered.
B. unchanged.
C. doubled.
D. quadrupled.

4. Where is a fusible plug installed on a Scotch boiler?

A. At the shell approximately 1 inch below the normal waterline.
B. At or near the center of the crown sheet of the combustion chamber.
C. In the furnace approximately 1 inch below the normal waterline.
D. In the furnace not more than 1 inch below the lowest permissible water level.

5. At dead center, the centerline of the connecting rod usually coincides with the _____

A. angularity of the piston motion.
B. inertia moment from the piston.
C. centerline of the cylinder.
D. centerline of the crankpin.

6. What poisonous gas is most likely to be found in a closed compartment that is on fire?

A. Nitrogen
B. Hydrogen
C. Carbon dioxide
D. Carbon monoxide

7. If water were solid, the distance a propeller would advance in one revolution is the _____

A. blade thickness fraction
B. mean width ratio
C. pitch
D. skew back factor

8. In an air conditioning system, compressor low head pressure indicates _____

A. weak or broken valve springs.
B. a tight compressor drive belt.
C. high line voltage.
D. air in the system.

9. A resistance would be placed in series with which of the following instruments to change its range of readings?

A. DC voltmeter
B. DC ammeter
C. Frequency meter
D. Power factor meter

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Deck

1. A deadhead is a (an) _____

A. tree or log awash in a nearly vertical position.
B. crew member who refuses to work.
C. upstream end of a land wall.
D. buoy that is adrift.

2. The signal from a ramark will show on the PPI as a _____.

A. coded signal on the same bearing and at a greater range than the transponder.
B. circle surrounding the transponder.
C. radial line from the transponder to the center of the PPI.
D. dashed circle at the same range as the transponder.

3. The Coordinator Surface Search in a SAR situation should display by day _____

A. the code flags FR.
B. a black ball over a black diamond shape.
C. code flag Quebec over a black ball.
D. two black diamond shapes in a vertical line.

4. The diurnal variation of pressure is not visible in the middle latitudes in winter because _____.

A. it is masked by the pressure changes of moving weather systems.
B. the decreased gravitational effect from the sun causes the variation to fade.
C. the decreased average temperature is less than the critical temperature.
D. the increased coriolis force disperses the pressure variation.

5. The next-to-last shot of an anchor cable is usually painted _____

A. white
B. international orange
C. yellow
D. red

6. The ventilation system of your ship has fire dampers restrained by fusible links. Which of the following statements is true?

A. A fusible link will automatically open after a fire is extinguished and reset the damper.
B. Fusible links must be replaced at every inspection for certification.
C. Fusible links are tested by applying a source of heat to them.
D. Fusible links must be replaced if a damper is activated.

7. What celestial body may sometimes be observed in daylight?

A. New moon
B. Saturn
C. Sirius
D. Venus

8. What kind of cloud is the classic "thunderhead"?

A. Cumulonimbus
B. Stratus
C. Cirrus
D. Altostratus

9. The purpose of chafing gear is to _____

A. prevent corrosion of standing rigging.
B. prevent corrosion of running rigging.
C. prevent wear caused by the rubbing of one object against another.
D. protect the body against extreme cold.

Answers

Engineer

1-D; 2-B; 3-A; 4-B; 5-C
6-D; 7-C; 8-A; 9-A

Deck

1-A; 2-C; 3-A; 4-A; 5-C
6-D; 7-D; 8-A; 9-C

If you have any questions concerning "Nautical Queries," please contact U.S. Coast Guard (G-MVP-5), 2100 Second St., SW, Washington, DC 20593-0001; telephone (202) 267-2705.

Keynotes

Final Rule

CGD 88-102, Marine vapor control systems (33 CFR Parts 154, 155, 156. 46 CFR Parts 30, 32, 35, 39.) RIN 2115-AC65 (June 21)

ACTION: Final Rule

The Coast Guard is adopting new regulations for the safe design, installation and operation of marine vapor control systems.

Some states, in an attempt to meet the national ambient air-quality standard for ozone set by the EPA under the Clean Air Act, have issued requirements for the control of volatile organic compound (VOC) emissions from tank vessels which carry oil and chemicals in bulk.

Vapor emission control is also being considered as a means of reducing occupational exposure to toxic chemicals, such as benzene.

Unsafe vapor control system design or operation could result in fires and explosions, tank ruptures and oil spills.

This rulemaking does not require the installation or use of vapor control systems.

EFFECTIVE DATE: July 23, 1990.

For further information, contact: LCDR Robert H. Fitch, Office of Marine Safety, Security and Environmental Protection (G-MTH-1), (202) 267-1217, between 7 am and 3:30 pm, Monday through Friday, except federal holidays.

EFFECTIVE DATE: July 31, 1990. This document suspends the applicability of the placarding requirements for ships operating on the Great Lakes, for manned fixed platforms and for manned floating platforms not in transit.

For further information, contact: LT James H. McDowell, Project Manager, Port Safety and Security Division (G-MPS), (202) 267-0491, between 7 am and 3:30 pm, Monday through Friday, except federal holidays.

Final Rule

CGD 90-008, Replacement of references to SOLAS 60 to SOLAS 74 (46 CFR Parts 2, 24, 30, 31, 33, 50, 70, 71, 75, 80, 90, 91, 94, 107, 109, 146, 153, 154, 167, 175,176, 188, 189 and 192) RIN 2115-AC46 (July 26)

ACTION: Final Rule

In 1980, the International Convention for the Safety of Life at Sea (SOLAS) 1974 replaced the International Convention for SOLAS 1960. This rulemaking updates 80 references to SOLAS 60 in Title 46 to SOLAS 74. Already in practice, these changes are primarily administrative.

EFFECTIVE DATE; August 27, 1990

For further information, contact: LCDR Steve Johnson, Marine Technical and Hazardous Materials Division, (202) 267-2997.

Final Rule

CGD 89-068, International Regulations for Preventing Collisions at Sea; 1972 (COLREGS) Demarcation Lines (33 CFR Part 80) RIN 2115-AD44 (August 6)

ACTION: Final Rule

COLREGS Demarcation lines are the boundaries separating U.S. waters on which the International and the Inland Navigation Rules apply. This rulemaking will improve safety by adjusting four COLREGS Demarcation lines and correcting the descriptions of four other Demarcation lines.

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EFFECTIVE DATE: September 5, 1990

For further information, contact: Mr. Harry Robertson, Navigation Rules and Information Branch, Office of Navigation Safety and Waterway Services, (202) 267-0357.

Final Rule

CGD 81-023 Equipment Requirements for Recreational Boats; Personal Flotation Devices (33 CFR Parts 175 and 181) RIN 2115-AA58 (August 6)

ACTION: Final Rule

The Coast Guard is revising and updating the requirements for personal flotation device (PFD) pamphlets. This rule incorporates by reference the PFD pamphlet design and packaging requirements in Underwriters Laboratories Standard for Marine Buoyant Devices (UL 1123). This rulemaking will result in improved PFD pamphlets which will increase boater awareness and use of PFDs. This rule also revises other PFD related sections to reflect approval of special purpose Type V PFDs, and remove an obsolete exemption from PFD carriage requirements.

EFFECTIVE DATE: February 4, 1991

ADDRESSES: The Executive Secretary, Marine Safety Council, maintains the public docket for this rulemaking. Comments and supporting documents have been made part of this docket and are available for inspection or copying at the office of the Executive Secretary, Marine Safety Council (G-LRA-2/3406), Coast Guard Headquarters, Room 3406, between 8 a.m. and 3 p.m., Monday through Friday, except federal holidays.

For further information, contact: Carlton Perry, Auxiliary, Boating and Consumer Affairs Division, (202) 267-0979.

Final Rule

CDG 85-099, Navigation Bridge Visibility; Ports and Waterway Safety, (33 CFR Part 164, 46 CFR Parts 31, 32, 71, 72, 91, 92, 107, 108, 189 and 190.) RIN 2115-AC 42 (August 8)

This regulation establishes standards of vessel design and operation to ensure that visibility from the navigation bridge is adequate to provide for safe navigation and operations. This is necessary to address the safety problems created by blind zones due to the configuration and loading of container vessels, large tankers with aft house arrangements and other large vessels. The intent of this rulemaking is to establish domestic regulations which enhance navigation bridge visibility and are consistent with the International Maritime Organization (IMO).

EFFECTIVE DATE: September 7, 1990

For further information, contact: LT S. R. Godfrey, Project Manager, Office of Navigation and Waterway Services (202) 267-0362).

Charter Renewal

CDG 90-049, National Offshore Safety Advisory Committee; Charter Renewal (August 16)

The Secretary of Transportation has approved the renewal of the charter for the National Offshore Safety Advisory Committee.

The purpose of this committee is to advise the Commandant of the Coast Guard on matters and actions concerning the safety of activities directly involved with or in support of the exploration of offshore mineral and energy resources insofar as they relate to matters within Coast Guard jurisdiction.

For further information, contact: Ms. Jo Pensivy, USCG, Executive Director, National Offshore Safety Advisory Committee (G-MP-4), Room 2414, Telephone (202) 267-1406.

Notice of Intent

CGD 88-079, Commercial Fishing Industry Vessel Regulations (46 CFR Part 28) RIN 2115-AD12 (August 31)

ACTION: Notice of intent to publish a supplemental notice of proposed rulemaking.

On April 19, 1990, the Coast Guard published in the *Federal Register* (55 FR 14924) a notice of proposed rulemaking proposing regulations to

implement the provisions of the Commercial Fishing Industry Vessel Safety Act of 1988.

These proposed regulations, if adopted, would apply to all commercial fishing industry vessels and would provide requirements for their equipment, design and operation. The 120-day comment period for this notice expired August 20, 1990. This notice advises the public of the Coast Guard's intent to publish a Supplemental Notice of Proposed Rulemaking addressing the following three areas of concern:

(1) Stability for fishing vessels of less than 79 feet in length,

(2) Requirements for survival craft on fishing vessels operating inside or near the Boundary Line with fewer than four individuals on board, and

(3) Administration of exemptions authorized by 46 U.S.C. 4506 in relationship to high vessel density and limited duration fisheries.

ADDRESSES: Comments may be mailed to Executive Secretary, Marine Safety Council (G-LRA-2/3406) (CGD 88-079), room 3406, Coast Guard Headquarters.

The comments and materials referred to in this notice will be available for examination and copying between 8 a.m. and 3 p.m., Monday through Friday, except holidays.

For further information, contact: CDR Mike Rosecrans, Office of Marine Safety, Security and Environmental Protection (G-MTH-4/13), Room 1304, Telephone (202) 267-2997.

Final Rule

CGD 86-034, Hazardous Materials Pollution Prevention (33 CFR Parts 126, 154, 155 and 156) RIN 2115-AC29 (September 4)

ACTION: Final Rule

The Coast Guard is amending its pollution prevention regulations for vessels and waterfront facilities to include hazardous materials, as well as oil, and to consolidate the waterfront facility safety requirements. These amendments are needed to prevent or mitigate discharges of bulk liquid hazardous materials by increasing the safety precautions taken during the transfer of these materials to and from waterfront facilities and vessels. They will also simplify the administration and enforcement of regulations for waterfront facilities handling bulk liquid hazardous materials by consolidating all transfer requirements into two parts of the Code of Federal Regulations.

EFFECTIVE DATE: October 4, 1990

For further information, contact: Mr. Gary W. Chappell, Office of Marine Safety, Security and Environmental Protection (202) 267-0491.

Final Rule

CGD 88-002, Regulations Implementing the Pollution-Prevention Requirements of Annex V of MARPOL 73-78 (33 CFR Parts 151, 155, 158 and 46 CFR Part 25) RIN 2115-AC89 (September 4)

ACTION: Final Rule

This final rule implements the Act to Prevent Pollution from Ships, as amended by the Marine Plastic Pollution Research and Control Act of 1987 and by Public Law 101-225, having taken account of comments received on the interim rule published on April 28, 1989 (54 FR 18384)

This final rule ultimately implements Annex V of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78).

The Coast Guard expects that this rule will reduce the amount of plastics, including synthetic fishing nets and other ship-generated garbage intentionally discharged into the marine environment.

EFFECTIVE DATE: September 4, 1990

ADDRESSES: A final regulatory evaluation, a final environmental assessment, and copies of the comments received on the Advance Notice of Proposed Rulemaking, the Notice of Proposed Rulemaking and the interim rule are available

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for inspection and copying at the office of the Marine Safety Council, Coast Guard, Room 3314. Office hours are between 8 a.m. and 3 p.m., Monday through Friday, except federal holidays.

Persons can submit comments on the information-collection requirement in this final rule to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, N.W. Washington, D.C. 20503, Attention: Desk Officer, Coast Guard.

For further information, contact: LCDR David W. Jones, Project Manager, Office of Marine Safety, Security and Environmental Protection (G-MPS-3), (202) 267-0491, between 7 a.m. and 3:30 p.m., Monday through Friday, except federal holidays.

Final Rule

CGD 84-043, Portable Tanks for the Transportation of Bulk Hazardous Materials by Vessel (46 CFR Parts 30, 64, 70, 90, 98, 109, 151 and 153) RIN 2115-AB69 (September 11)

ACTION: Final Rule

The Coast Guard is amending its regulations on the carriage of certain dangerous cargoes in bulk to discontinue its approval of marine portable tanks (MPTs), and to authorize the transfer of liquid hazardous materials to and from DOT-specification portable tanks on vessels. (Existing approved MPTs may remain in service.)

Also, in response to a petition for rulemaking, it is amending its regulations to let DOT-specification 57 portable tanks be used for the bulk carriage of high-flashpoint Grade E combustible liquids and other low-hazard liquids. Since DOT now covers tanks for all modes of transportation, the Coast Guard's covering them for the maritime mode is superfluous.

Among the expected benefits of this rule are the removal of the Coast Guard from competition with private industry, which inspects and approves DOT-specification portable tanks, and the greater availability of portable tanks, especially overseas.

EFFECTIVE DATE: October 1, 1990

ADDRESSES: The final evaluation is available for examination at the Office of the Executive Secretary, Marine Safety Council (G-LRA-2) Room 3406, U.S. Coast Guard, between 8 a.m. and 4 p.m., Monday through Friday, except federal holidays.

For further information, contact: Mr. Frank K. Thompson, (202) 267-1577.

Proposed Rule

CGD 90-016, Deepwater Port Radar Beacons (33 CFR Part 149) RIN 2115-AD53 (September 19)

ACTION: Notice of proposed rulemaking

The Coast Guard is proposing modifications to the radar beacon regulations for deepwater ports to require transmission in both the X-band and S-band, eliminate the sweep requirements and limit the transmission rate for frequency agile radar beacons. This change is needed to improve the effectiveness of radar beacons as a navigational aid.

DATE: Comments must be received on or before November 20, 1990.

ADDRESSES: Comments on the proposal should be submitted to Commandant (G-LRA-2), U.S. Coast Guard, 2100 Second Street, S.W., Washington, D.C. 20593-0001.

Comments may be delivered to, and will be available for inspection and copying at the Marine Safety Council (G-LRA-2) in room 3406 at the same address. Normal office hours are between 8 a.m. and 3 p.m., Monday through Friday, except federal holidays.

For further information, contact: Gary W. Chappell, Office of Marine Safety, Security and Environmental Protection (G-MPS-3) at (202) 267-0491, between 7 a.m. and 3 p.m., Monday through Friday, except federal holidays.

Proposed Rule

CGD 83-043) Incorporation of Amendments to the International Convention for Safety of Life at Sea, 1974 (33 CFR Part 164 and 46 CFR Parts 50, 52, 56, 58, 61 and 111) RIN 2115-AB41 (September 28)

ACTION: Notice of proposed rulemaking

The Coast Guard proposes to amend 33 CFR Part 164 (Navigation Safety) and 46 CFR subchapter F (Marine Engineering) to incorporate amendments to the International Convention for Safety of Life at Sea (SOLAS), 1974.

This rule making is necessary because changes have been made to the 1974 SOLAS Convention and new technology has become available. These amendments will enhance personnel and vessel safety, protect the natural environment and make the domestic merchant fleet more competitive with the international one.

DATE: Comments must be submitted on or before December 27, 1990.

ADDRESSES: Comments should be mailed to Commandant (G-LRA-2/3314) (CGD 83-043), U.S. Coast Guard, 2100 Second Street S.W., Washington, D.C. 20593-0001.

Comments may also be delivered to, and will be available for inspection and copying at, the Marine Safety Council, Room 3406, at the same address above, from 8 a.m. to 3 p.m., Monday through Friday, except federal holidays. Telephone: (202) 267-1477.

For further information, contact: LCDR Roger M. Dent, Marine Technical and Hazardous Materials Division, Office of Marine, Safety, Security and Environmental Protection, (202) 267-2206.

Applications

CGD 90-058, Chemical Transportation Advisory Committee; Applications request (October 1)

ACTION: Request for applications

The U.S. Coast Guard seeks applications to membership on the Chemical Transportation Advisory Committee. This committee advises the Chief, Office of Marine Safety, Security and Environmental Protection on regulatory requirements for promoting safety in the transportation of hazardous materials on vessels and the transfer of these materials between vessels and waterfront facilities.

Applications will be considered for eight expiring terms and any other existing vacancies. To achieve the balance of membership required by the Federal Advisory Committee Act, the Coast Guard is especially interested in applications from minorities and women.

The committee usually meets at least once a year in Washington, D.C., with subcommittee meetings for specific problems as required.

DATE: Requests for applications should be received no later than January 1, 1991.

ADDRESSES: Persons interested in applying should write to Commandant (G-MTH-1), U.S. Coast Guard, 2100 Second St., S.W., Washington D.C., 20593-1000.

For further information, contact: CDR Gordon Marsh or LCDR Bob Fitch at the above mailing address or telephone (202) 267-1217.

Final Rule

CGD 86-067d, Programs for Chemical Drug and Alcohol Testing of Commercial Vessel Personnel (46 CFR Part 16) RIN 2115-AC45 (October 2)

ACTION: Final rule

This final rule revises the pre-employment drug testing requirement for two categories of marine employers: large employers with more than 50 employees and medium employers with 11 to 50 employees. This change will minimize the need for additional pre-employment testing by these employers until December 1990, and relieve them of an unintended economic burden caused by implementation of pre-employment testing before random testing.

EFFECTIVE DATE: October 2, 1990.

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For further information, contact: LCDR T. A. Murphy, Project Manager, Marine Investigation Division (G-MMI), Office of Marine Safety, Security and Environmental Protection, Telephone (202) 267-2215.

Temporary Rules

CGD 90-059, Safety and security zones (33 CFR Parts 100 and 165) (October 9)

ACTION: Notice of temporary rules issued

The document in the October 9 issue of *Federal Register* lists temporary safety zones, security zones and local regulations.

Periodically, the Coast Guard must issue safety zones, security zones and special local regulations for limited periods of time in limited areas.

Safety zones are established around areas where there have been marine casualty or when a vessel carrying a particularly hazardous cargo is transiting a restricted or congested area. Special local regulations are issued to assure the safety of participants and spectators of regattas and other marine events.

DATES: The published list includes safety zones, security zones and special local regulations that were established between July 1, 1990 and September 30, 1990, and have since been terminated. Also included are several zones established earlier, but inadvertently omitted from the past published list.

ADDRESSES: The complete text of any temporary regulation may be examined at, and is available upon request, from Executive

Secretary, Marine Safety Council (G-LRA-2), Room 3406, U.S. Coast Guard Headquarters,

For further information, contact: Mr. Bruce Novak, Executive Secretary, Marine Safety Council at (202) 267-1477 between the hours of 8 a.m. and 4 p.m., Monday through Friday.

Final Rule

CGD 85-061, Intervals for required internal examination and hydrostatic testing of pressure vessel type cargo tanks on barges (48 CFR Parts 38, 54, 98 and 151) RIN 2115-AC18 (October 16)

ACTION: Final rule

The Coast Guard is amending the regulations that govern internal inspection and hydrostatic test intervals for pressure vessel type cargo tanks on barges that transport liquefied gaseous cargoes and Grade A flammable liquids. This action adopts the interim final rule published on December 11, 1989, as a final rule with changes.

EFFECTIVE DATE: October 16, 1990.

For further information, contact: LCDR William C. Bennett, Merchant Vessel Inspection and Documentation Division, Office of Marine Safety, Security and Environmental Protection, telephone (202) 267-1181. Normal working hours are between 8 a.m. and 4:30 p.m., Monday through Friday, except federal holidays.