



**THE SECRETARY OF TRANSPORTATION**

WASHINGTON, D.C. 20590

December 10, 1993

**The Honorable John D. Dingell  
Chairman, Committee on Energy  
and Commerce  
U.S. House of Representatives  
Washington, D.C. 20515**

**Dear Mr. Chairman:**

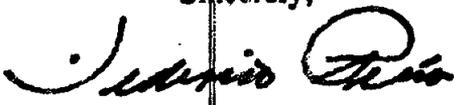
**On September 30, I wrote to the Congress outlining a series of safety reviews that I was initiating in the Department of Transportation, in response to the derailment of Amtrak's Sunset Limited near Mobile, Alabama. I now want to forward to you the resulting action plan that the Department is initiating in response to the tragic accident at Big Bayou Canot.**

**As you know, the National Transportation Safety Board is continuing its investigation into the probable cause of the September 22 accident. That investigation is expected to be completed early next year. I commend the Board for its work and, upon completion of the on-going investigation, look forward to receiving and promptly evaluating the Safety Board's recommendations.**

**In the interim, however, there are a number of critical safety initiatives identified in the Department's review of the Mobile accident and the subsequent emergency response that we believe should be undertaken immediately. These marine and rail safety initiatives are outlined in detail in the enclosed report. A separate set of actions designed to respond to recent highway-rail grade crossing accidents also is included in our action plan. In total, I believe these initiatives will enhance significantly the safety of our inland waterways and national system of railroads.**

**I am committed to ensuring that safety remains the Department of Transportation's highest priority. I firmly believe that the initiatives outlined in this package will help improve transportation safety, a process that will continue as the Department prepares its Coast Guard and rail safety authorization bills for submission to the Congress early next year. I look forward to working with you and others in the Congress in the months to come to enhance the safety of the traveling public.**

**Sincerely,**

  
**Federico Peña**

**Enclosure**

**Actions Initiated by the Department of Transportation  
to Enhance Safety on the Nation's Transportation System**

**I. Response to the Derailment of Amtrak's Sunset Limited**

As a result of the fatal barge/railroad bridge accident near Mobile, Alabama on September 22, 1993, the Secretary of Transportation directed the U.S. Coast Guard and the Federal Railroad Administration (FRA) to review the circumstances surrounding the accident, and undertake initiatives to minimize the risk of any similar tragedy in the future.

The preliminary work has now been completed and the Department has developed an action plan involving five emphasis areas:

- a. Developing more stringent licensing requirements for operators of uninspected towing vessels,
- b. Upgrading the requirements for radar and navigational equipment on board such ships,
- c. Improving the procedures whereby information concerning mishaps and collisions is reported,
- d. Seeking new means by which the structural integrity of bridges can be checked, and actions taken if damage occurs,
- e. Strengthening emergency preparedness, and enhancing the prospects for victims' survival if a crash occurs.

Some of these actions will require rulemaking or legislation, and others will involve building closer working relationships with Amtrak and the other railroads, as well as State and local governments.

**A. Developing more stringent licensing requirements for operators of uninspected towing vessels.** Licenses for operators of uninspected towing vessels (*inland tugs, and seagoing tugs below 300 gross tons, do not require Coast Guard inspection*) will be expanded to recognize different levels of qualification. The Coast Guard will initiate a series of rulemakings that will propose the following:

- Licensees who have only minimum basic qualifications should be restricted to those towing configurations, sizes and routes they are qualified to operate,
- Those who wish to increase the scope of their license should have to pass simulator courses and written examinations,
- All operators of radar-equipped towing vessels should be required to attend an approved radar observer training course,

- Applicants desiring to operate on midwestern and certain Gulf state river routes must acquire operating experience on that route and pass an appropriate examination,
- The equivalency between licensed masters and mates of ships, and those who operate uninspected towing vessels will be reassessed.

The Coast Guard will also emphasize the responsibility of towing vessel owners to employ qualified experienced personnel as operators in charge (or masters) of their vessels.

B. Upgrading the requirements for radar and navigational equipment on board uninspected towing vessels. The accident might have been avoided if the tug operator had known where he was in the fog, and his relation to the bridge. The presence of marine radar and other navigational equipment, and an operator proficient in their use, may have prevented the barge from striking the bridge.

- The Coast Guard will initiate rulemaking to determine whether all uninspected towing vessels should carry a marine radar system for surface navigation, as well as marine charts for the area to be transited and current or updated publications. In addition, the rulemaking should seek to identify areas of operation where a compass, depth finder and other instrumentation are necessary tools for safe navigation.
- The Coast Guard will amend the Aids to Navigation Manual to address specifically the need to consider approaches to bridges in the design for aids to navigation systems.
- The Coast Guard, together with the Maritime Administration (MARAD) will review the existing standards of the approved inland radar observer courses, to determine if the existing curriculum meets the operational and safety needs of the inland mariner. In addition, the review will also develop the standards necessary to reflect current technology.
- Each Coast Guard district will conduct a survey of all bridges under its jurisdiction and make case-by-case determinations regarding the adequacy of existing systems, the need for additional fendering systems, and possibly additional bridge lighting.
- The Coast Guard will hold discussions with Congressional staff to include in H.R. 3282 provisions to link the requirement for compasses and fathometers to the area of operation of a towing vessel.

C. Improving the procedures whereby information concerning mishaps and collisions is reported. A matter of significant concern is how quickly and effectively notification is given to authorities, work crews and response forces regarding such an episode.

The Coast Guard will initiate rulemaking proposing to require that casualties be reported immediately (after the resulting safety concerns have been addressed). In addition, the rulemaking will indicate clearly that required notice of a hazardous condition includes conditions such as damage resulting from unintentional collisions of a vessel with a bridge or a shore structure.

To the extent needed after vessel strikes, FRA will assist the Coast Guard (at the field office level) in identifying railroads that control operations over active railroad bridges and providing emergency telephone numbers.

The Coast Guard will initiate discussions on amending H.R. 3282, or develop a separate legislative proposal, to increase the maximum civil penalty from \$1,000 to \$25,000 for failing to report a marine casualty as defined under 46 CFR 4.05-1.

FRA has evaluated the need to strengthen procedures for verbal notification of railroad dispatching centers when bridges are struck and accidentally damaged by other transportation vessels or vehicles. It has determined that it is wise to vest coordination of bridge damage notification at a local level, rather than to attempt to pass information through centralized clearinghouses staffed by persons not familiar with the specific geography involved. Reliance on local resources is especially appropriate where, as in the case of the Mobile/Saraland accident, those most likely to make the report are not aware of their own precise location.

D. Seeking new means by which the structural integrity of bridges can be checked, and action taken if damage occurs. Following the accident, FRA conducted a 10-year analysis of previous train accidents involving bridge failures induced by damage from vessels and vehicles -- three involved bridges struck by highway vehicles and none by marine vessels. In 1992-3, FRA also reviewed railroad programs designed to ensure bridge structural safety, which indicated that most railroads, including all major railroads, have in place credible programs to inspect railroad bridges periodically and verify their structural integrity for loads allowed. The review also indicated the need to monitor the efforts of smaller railroads with respect to bridge safety.

FRA is conducting a review of in-use or available automatic detection systems capable of identifying misalignment or other structural damage to railroad bridges and communicating

warning through the signal system or by other means. This review is expected to be completed by the end of January 1994.

FRA, in coordination with the Federal Highway Administration and the Coast Guard, is performing a technology review to ascertain whether new or emerging technologies offer the promise of more effective detection of bridge damage at lesser cost than traditional methods. This is also scheduled for completion by the end of January 1994.

FRA will pursue the demonstration of any new technology that offers promise for more cost-effective application.

FRA will include the issue of bridge damage in its analysis of incursions onto the railroad right-of-way under a forthcoming rulemaking on high speed rail. Lessons learned in this context may be transferable to conventional rail operations.

FRA will adopt a policy for continuing effort in support of bridge structural safety by the end of 1993.

E. Strengthening emergency preparedness, and enhancing the prospects for victims' survival if a crash occurs. FRA has initiated, in coordination with Amtrak, a review of selected elements of emergency preparedness and response for passenger train accidents. They will

Review Amtrak's standard onboard emergency equipment, including emergency lighting; availability and ease of operation of emergency exits through doors, windows, roof, etc.; fire extinguisher; first aid kit; crowbar; and sledge hammer. A comparison of Amtrak with commuter and selected foreign operations should be complete by early 1994.

Review Amtrak's program to train local emergency responders and determine adequacy of Amtrak's current training material, which is prepared in videotape format. Amtrak has agreed to take a proactive approach in placing its training aids in the hands of emergency responders.

Review procedures for providing additional emergency egress and other safety information to all passengers, such as using seat cards, video presentations, and public address announcements. Solutions will be evaluated for commuter rail and will be incorporated into revised passenger car safety standards when issued.

Review and determine readiness of major railroad dispatching centers to respond to an emergency by promptly contacting local emergency responders in the affected jurisdiction.

FRA instituted a review of Amtrak crash survivability issues, including the performance of the locomotives involved in the Alabama accident regarding crash survivability. Although the locomotives remained intact, the accident was not survivable due to the forces involved and the location where the lead locomotive came to rest (under water). Fuel tanks on all three locomotives failed, but this accident was not a valid test of the new compartmentalized design which was expected to limit fuel loss under much less catastrophic circumstances.

## II. Reinvigorating the Department's Safety Efforts Relating to Highway-Rail Grade Crossings.

Recent serious transportation accidents, and particularly highway-rail collisions, highlight the concern we each share for safety in the national transportation system. While great progress has been made over the years in reducing fatalities at highway-rail crossings, a vehicle and a train collide nearly every ninety minutes somewhere in the U.S.

In 1992, 579 individuals lost their lives in highway-rail crashes and nearly 2,000 others were injured. Collisions at highway-rail crossings are the leading cause of fatalities in the entire rail industry, far surpassing fatalities among rail passengers or employees. This is particularly disturbing because these accidents are preventable.

The Department is now preparing an action plan, to be completed within 60 days, to reinvigorate our safety efforts relating to highway-rail grade crossings. It will be based on the following initiatives:

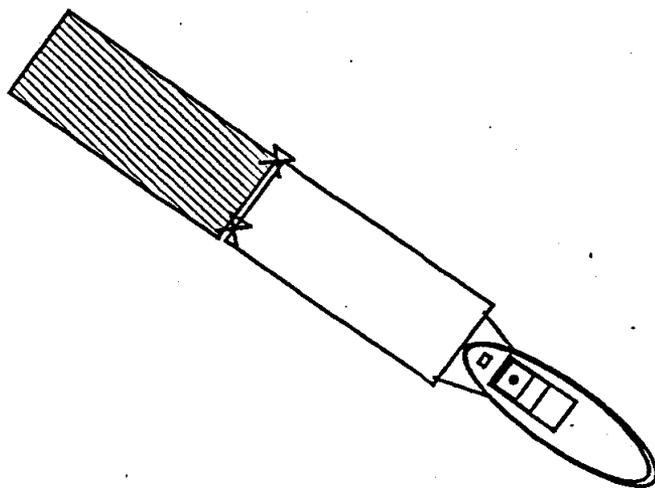
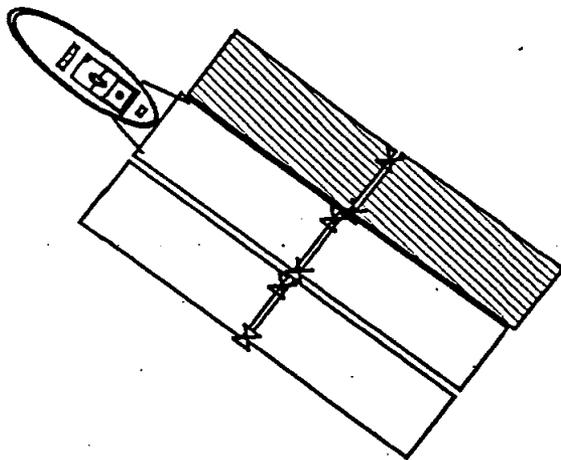
- . Develop integrated plans to safeguard the public through crossing closures, improved warning systems, better passive signage, grade separations, and other engineering improvements. Identify and promote specific system improvements at those crossings with active warning devices where, despite flashing lights or gates, 50 percent of fatalities occur.
- . Review passive signage effectiveness and options.
- . Review emergency notification procedures where crossing devices fail to work or vehicles are disabled at crossings.
- . Ensure inclusion of crossing safety impacts in analysis of plans for Federally funded transportation projects.
- . Increase public awareness by working with diverse groups such as Operation Lifesaver, Inc., the American Automobile Association, the National Association of Governors' Highway

Safety Representatives, and others to strengthen public outreach during 1994 and beyond.

- . Complete promptly FRA rulemakings dealing with grade crossing warning signals (maintenance, inspection, and testing), and locomotive alerting lights.
- . Evaluate the results of ongoing research and development for actions that can yield additional safety benefits (e.g., locomotive horn effectiveness, reflectorization of rolling stock, etc.) and review the R&D plan for crossing safety to ensure all affordable opportunities are exploited.
- . Review the need for legislation or regulatory action to impose strict responsibilities on holders of private crossing rights commensurate with the crossing's risk to public users and rail operations.



REVIEW OF  
MARINE SAFETY ISSUES  
RELATED TO UNINSPECTED  
TOWING VESSELS



Prepared by U.S. Coast Guard

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## REVIEW OF MARINE SAFETY ISSUES RELATED TO UNINSPECTED TOWING VESSELS

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**COMMANDANT'S ACTION  
ON  
THE REVIEW OF MARINE SAFETY ISSUES  
RELATED TO UNINSPECTED TOWING VESSELS**

The report of the review of marine safety issues conducted by the Chief, Office of Marine Safety, Security and Environmental Protection and the Chief, Office of Navigation Safety and Waterway Services has been reviewed. The report, including the conclusions and recommendations, is approved. Action will be taken on the recommendations as follows.

Recommendation 1: The Operator of Uninspected Towing Vessel (OUTV) license should have levels of qualification. Restrictions for such levels of qualification may include route, gross tonnage or horsepower of the towing vessel, type of towing configuration, etc. The basic three-year apprenticeship should qualify an applicant for a basic OUTV license only.

Action: Commandant (G-MVP) will initiate rulemaking to propose the recommended regulatory changes.

Recommendation 2: OUTV's holding a basic license should be able to increase the scope of the license after acquiring additional service. In addition to service, they should be required to attend a Coast Guard approved simulator course, pass a written or simulator examination, or some combination thereof.

Action: Commandant (G-MVP) will initiate rulemaking to propose the recommended regulatory changes.

Recommendation 3: OUTV's seeking to increase the scope of their license to the highest level should be required to attend a Coast Guard approved simulator course.

Action: Commandant (G-MVP) will initiate rulemaking to propose the recommended regulatory changes.

Recommendation 4: All OUTV's should be required to demonstrate their skills on a simulator when renewing their license.

Action: Commandant (G-MVP) will initiate rulemaking to propose the recommended regulatory changes.

Recommendation 5: Regulations should be developed that limit a second-class OUTV to service on smaller towing vessels. The operator for larger vessels should always be an OUTV.

Action: Commandant (G-MVP) will initiate rulemaking to propose the recommended regulatory changes.

Recommendation 6: Applicants desiring a Western Rivers route on their license must acquire operating experience on that route and pass an appropriate examination.

Action: Commandant (G-MVP) will initiate rulemaking to propose the recommended regulatory changes.

Recommendation 7: Regulations should be developed requiring a radar equipped towing vessel more than 26 feet in length to be operated by an OUTV qualified as a radar observer.

Action: Commandant (G-MVP) will initiate rulemaking to propose the recommended regulatory changes.

Recommendation 8: The Coast Guard and the Maritime Administration (MARAD) should review the existing standards of the approved inland radar observer courses. The review should determine if the existing curriculum meets the operational and safety needs of the inland mariner. In addition, the review should develop the standards necessary to reflect current technology.

Action: Commandant (G-MVP) will initiate the recommended review in cooperation with MARAD.

Recommendation 9: The Coast Guard, with assistance from the Towing Safety Advisory Committee, should review the oceans (domestic trade) route authorized for an OUTV license and propose alternatives that conform to international standards.

Action: Commandant (G-MVP) will initiate the recommended review and request assistance from the Towing Safety Advisory Committee.

Recommendation 10: Regulations should be developed to specify the equivalency of licensed masters and mates of 500/1,600 GT vessels to service as an OUTV. Licensed masters of vessels of 200 GT or less should be limited to service as a second-class OUTV.

Action: Commandant (G-MVP) will initiate rulemaking proposing the recommended license limitations.

Recommendation 11: The Coast Guard should initiate a regulatory project to amend Title 46 CFR 4.05-1 to require that casualties be reported immediately after the resulting safety concerns have been addressed. In addition, all unintentional allisions (collisions of a vessel with a stationary object) with bridges or other structures should be reported.

Action: Commandant (G-MMI) will initiate rulemaking proposing the recommended amendments to 46 CFR Part 4.

Recommendation 12: The Coast Guard should initiate a legislative proposal to amend 46 USC 6103 to increase the maximum civil penalty from \$1,000 to \$25,000 for failing to report a marine casualty as defined under 46 CFR 4.05-1.

Action: Commandant (G-MMI) will initiate the recommended action through discussions regarding amendment of H.R. 3282 (See Recommendation 19.) or as a separate legislative proposal, as appropriate.

Recommendation 13: The Coast Guard should initiate a regulatory project to amend 33 CFR 160.215 to clearly indicate that the required notice of a hazardous condition includes a condition caused by a vessel or its operation even when the hazard is not on board the vessel.

Action: Commandant (G-MPS) will initiate the recommended regulatory action.

Recommendation 14: It is recommended that each Coast Guard district conduct a survey of all bridges under Coast Guard jurisdiction and make a case-by-case determination regarding the adequacy of existing systems, and the requirement for additional fendering systems, and the requirements, if any, for additional bridge lighting.

Action: Commandant (G-NBR) will initiate the appropriate action.

Recommendation 15: The Coast Guard should initiate rulemaking under authority of the Ports and Waterways Safety Act (33 USC 1231) to require that all uninspected towing vessels carry:

1. a marine radar system for surface navigation;
2. marine charts for the area to be transited; and
3. current or corrected publications.

In addition, the rulemaking should seek to identify areas of operation where a compass and depth finder are necessary tools for safe navigation. This will result in carriage requirements while navigating in specified areas.

Action: Commandant (G-NSR) will initiate rulemaking under the authority of H.R. 3282, if enacted, (See Recommendation 19.) or 33 USC 1231, proposing the recommended action.

Recommendation 16: The Coast Guard should amend the Aids to Navigation Manual - Administration (COMDTINST M16500.7) to specifically address the need to consider approaches to bridges in the design for aids to navigation systems.

Action: Commandant (G-NSR) will make the recommended amendments to the Aids to Navigation Manual.

Recommendation 17: The Commander, Eighth Coast Guard District should initiate the improvements in the vicinity of Big Bayou Canot recommended in the WAMS Study Update for the Mobile River. (See Enclosure 20.)

Action: Commander, Eighth Coast Guard District will initiate the recommended improvements in the vicinity of Big Bayou Canot.

Recommendation 18: The Coast Guard should emphasize the responsibility of towing vessel owners to employ qualified, experienced personnel as operators in charge (or masters) of their vessels.

Action: Commandant (G-MVP) will initiate the recommended action.

Recommendation 19: The Coast Guard should support H.R. 3282 and discuss with Congressional staff the inclusion of provisions for an increased maximum civil penalty for failure to report marine casualties and provisions to link the requirement for compasses and fathometers to the area of operation of a towing vessel.

Action: Commandant (G-CC) will coordinate support for H.R. 3282 and discussions with Congressional staff to include provisions for an increased maximum civil penalty and flexibility in the requirement for compasses and fathometers on towing vessels.

*J. W. Knie*



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DEC 1 1993

**From:** Chief, Office of Marine Safety, Security and  
Environmental Protection

Chief, Office of Navigation Safety and Waterway  
Services

**To:** Commandant

**Subj:** REVIEW OF MARINE SAFETY ISSUES REGARDING UNINSPECTED  
TOWING VESSELS

## INTRODUCTION

On September 22, 1993, the Amtrak Sunset Limited passenger train derailed while crossing the Big Bayou Canot bridge, north of Mobile, Alabama. As the 11-unit train, traveling at 70 mph crossed the bridge, the center bridge portion crumbled and three locomotives and the first four passenger cars plunged into the bayou. As a result of this tragedy, 47 passengers and crew lost their lives and many more were injured.

Although the investigation is still ongoing, preliminary indications are that:

A flotilla consisting of the uninspected towboat MAUVILLA and six barges was navigating up the Mobile River when it apparently became lost in dense fog. The flotilla may have strayed out of the river channel and into Big Bayou Canot. The bayou is considered impassable to commercial barge traffic because of the Big Bayou Canot railroad bridge, a fixed bridge which provides only seven feet of clearance above the surface of the water at mean high water.

Additionally, it is possible that one of the MAUVILLA's barges may have contacted the center portion of the three-section bridge and shifted it out of alignment. The railroad track may have also shifted.

As a result of this casualty, and prior to completion of the investigation, the Secretary of Transportation directed the Coast Guard to review specific areas of responsibility regarding marine

safety on the inland waterways. (See Enclosure 1.) The following areas were reviewed:

a. the history of incidents involving operators of uninspected towing vessels;

Coast Guard casualty data collected from the years 1980 to 1991 was used to provide statistics regarding incidents involving uninspected towing vessels. Several factors were considered in the analysis of available data, including the vessels' area of operation, gross tonnage and horsepower. In addition to reviewing the frequency of marine casualties for uninspected towing vessels, the Coast Guard researched the frequency of bridge allisions for those same vessels.

b. the adequacy and effectiveness of the licensing requirements for operators of uninspected towing vessels;

The Coast Guard reviewed the training and time in service requirements for the two licenses for Operator of Uninspected Towing Vessel (OUTV). Specifically, the amount of time in service for each class of OUTV license, the feasibility of developing levels of qualification for the OUTV license similar to those for master or mate, appropriate measures to ensure proficiency in the use of navigation equipment, and knowledge of the area of operation were considered.

c. the adequacy of the requirements for the reporting of marine casualties and hazardous conditions involving vessels and the adequacy of the penalties for failure to report such incidents;

While reviewing these requirements, the Coast Guard considered the potential for misunderstanding concerning how quickly a report should be provided after an incident occurs and which types of incidents need to be reported. The current penalties for failure to report marine casualties and hazardous incidents were also examined to determine if they are an adequate deterrent for non-reporting.

d. the adequacy of fendering and lighting systems for bridges over navigable waterways;

The Coast Guard reviewed the current requirements for bridge fendering and lighting systems. Requiring fendering on all bridges, regardless of the amount of vessel traffic and requiring lighting on all bridges, regardless of the amount of nighttime vessel traffic were considered.

e. the adequacy of the navigation equipment requirements for uninspected towing vessels;

The Coast Guard reviewed the current requirements for navigation equipment on uninspected towing vessels. Consideration was given

to amending the current regulations to require additional navigation equipment for uninspected towing vessels.

f. the adequacy of the aids to navigation system for marking bridges and for marking the approaches to bridges over navigable waterways;

The Coast Guard reviewed the current process for the initial identification of the aids to navigation requirements for waterways and the periodic reviews to validate the adequacy of those aids once in place. Specific consideration was given to the adequacy of the aids to navigation in the area of Big Bayou Canot.

## BACKGROUND AND DISCUSSION

### Marine Casualty History

The Coast Guard classifies marine casualties into two categories; personnel casualties and vessel casualties. A personnel casualty refers specifically to an incident that results in injury or death and that is not related to a vessel casualty such as a grounding. For example, a person falling overboard and drowning or severing a limb while operating equipment would be classified as personnel casualties. A vessel casualty refers to an incident involving a vessel such as an explosion or equipment failure. An explosion aboard a vessel that results in injury or death is classified as a vessel casualty.

The Coast Guard received reports of 12,971 marine casualties involving uninspected towing vessels over a 12 year period (1980-1991). Of those, 7,664 were vessel casualties directly attributable to personnel error. Although the location of 43 of those casualties could not be identified, the remaining casualties were distributed among the following routes:

Oceans & near coastal:	482
Great Lakes:	31
Western Rivers:	4290
<u>Other Inland:</u>	<u>2818</u>
Total:	7621

(For the purposes of this casualty history, oceans and near coastal waters are those waters seaward of the navigational demarcation lines dividing the high seas from harbors, rivers, and other inland waters. Inland waters are those shoreward of the navigational demarcation lines. Western Rivers refers to all inland waters in the Second Coast Guard District, and the Mississippi River in the Eighth Coast Guard District.)

These 7,664 vessel casualties were reviewed to determine if the gross tonnage of a vessel correlates to the frequency or likelihood of involvement in a marine casualty. The vessels measuring under 300 GT include towing vessels on all routes. The overwhelming majority of the towboats measuring from 300 to 1300 GT operate on the Western Rivers. Over 1300 GT, most of the vessels are ocean-going tugs. As the table below indicates, the majority of the casualties involve the larger inland towing vessels.

<u>Gross Tonnage</u>	<u>No. of Vessel Casualties</u>
<100	1594
>=100 - <300	3257
>=300 - <1300	2700
>=1300	94
No data	19

These 7,664 vessel casualties were further reviewed to determine whether horsepower correlates to the frequency of marine casualties. The horsepower for every uninspected towing vessel involved in a reportable marine casualty is not available in the Coast Guard's casualty database. However, the available data indicates that as horsepower increases, so does the frequency of vessel casualties. For those casualties where horsepower was available, 88% of the vessel casualties on the Western Rivers and 61% of the vessel casualties on the inland waters involved towing vessels with over 1200 HP.

<u>Horsepower</u>	<u>Number of Vessel Casualties</u>	
	<u>Western Rivers</u>	<u>Inland</u>
<1200	302	533
>=1200 - 3200	256	319
>=3200	1994	511
No data	1738	1512

(The remaining 499 vessel casualties were on routes other than Inland or Western Rivers.)

Records of personnel and vessel casualties involving uninspected towing vessels under 300 GT were examined. Approximately 60% of vessel casualties are directly attributable to human error. (See Enclosure 2.) Similarly, approximately 60% of personnel casualties are directly attributable to human error. (See Enclosure 3.)

Although larger inland towing vessels may be more frequently involved in marine casualties, casualty data indicates that crewmembers on the smaller inland towing vessels may be at a higher risk for personnel injuries. Enclosure 4 indicates that the vast majority of deaths and injuries on towboats occur on vessels under 300 GT.

In light of the recent Amtrak passenger train derailment in Mobile, Alabama, the Coast Guard was particularly interested in the frequency of tows alliding with bridges. Over a 12 year period, the Coast Guard received marine casualty reports of 773 tow allisions with bridges or bridge fendering systems. Enclosure 5 shows the distribution of bridge allisions by waterway. While most bodies of water had less than ten reported allisions for the 12 year period, the Upper Mississippi River had 182. The majority of the bridges that were struck are railroad bridges.

The Coast Guard attempted to identify the bridges most frequently struck by tows and the frequency of those allisions as related to the number of tows that transit under each bridge. Although allisions which do not result in a reportable marine casualty are not included in the Coast Guard casualty database, the bridges with the greatest number of allisions resulting from reportable casualties could be identified. (The criteria for reportable marine casualties are found in Enclosure 6, 46 Code of Federal Regulations (CFR) Part 4. Minor bumps and rubs that do not meet reportability criteria are not included in Coast Guard casualty data.) The number of allisions was then compared to Army Corps of Engineers transit data. (See Enclosure 7.) The Army Corps of Engineers records the number of tows transiting the waterways as they pass through locks, not as they navigate under bridges. Transit data for the number of tows navigating under specific bridges was not available. Therefore, for the purpose of this review, the Coast Guard used the transit data for the locks closest to the bridge for which significant allision data existed, assuming that if a tow passed through a lock, it also transited under the nearby bridge. Although these calculations are not exact, they provide a valid approximation based upon available data. The data shows reportable marine casualty allisions to tow transit ratios of about 1/1000 to 1/12,000 for the bridges most frequently involved in reportable marine casualty allisions.

#### Requirements for License for

#### Operator of Uninspected Towing Vessel

Through World War II, most tugs and towing vessels were propelled by steam. Federal law required that the person in the wheelhouse of a steam-powered towing vessel be licensed as a Master or Pilot. The licensing requirements stemmed from the federal inspection and manning requirements for steam-powered vessels.

The post-war industrial boom caused significant growth in the towing industry, particularly on the Western Rivers. As companies built replacements for ageing steam-powered vessels, diesel propulsion was selected. Diesel propulsion not only offered economy of operation for the powerplant, but also

eliminated the requirement for federal inspection. When this occurred, federal requirements for the number of crewmembers and their qualifications were also eliminated. Along with the demand for personnel to crew new vessels, the old hands were gradually being attrited. New vessels were often operated by unlicensed personnel with minimal qualifications. With few exceptions, companies did not require their wheelhouse personnel to hold a license issued by the Coast Guard.

Other technological advances also occurred. The horsepower (HP) in the new towboats gradually increased and by the 1960's two vessels were fitted with diesel engines of 10,000 HP. New high-lift locks with larger lock chambers were constructed to replace the original low-lift locks. The size of the barges increased. The standard barge of the 1940's, measuring 175' X 26', was replaced by the jumbo barge measuring 195' X 35'. These are now being supplanted by the super-jumbo barge measuring 250' X 52'. The trend through the years has been to encourage the most economical movement of cargoes through increased tow size.

Similar changes took place in the coastal ports and on offshore waters. As on the rivers, steam tugs were phased out and replaced with diesel propulsion; the size of the barges increased; and the integrated tug-barge concept developed. The same amount of cargo as carried in a self-propelled vessel could be moved by a tug and tow crewed with fewer mariners with reduced qualifications.

The operator of an ocean-going towing vessel of 200 GT or more was required to be licensed under the Officer's Competency Certificates Convention, 1936. In ocean service, the diesel propelled towing vessel was required to be inspected if it exceeded 300 GT. Inevitably, many ocean-going towing vessels were built to either 199 or 299 GT to avoid these requirements.

Larger tows, larger barges, larger lock chambers, and greater towing vessel horsepower demanded superior skills of the pilothouse personnel. With the gradual loss of experienced personnel in the pilothouse, the number of casualties gradually increased through the 1960's and early 70's. These casualties caused a growing awareness of a need to license the operator of an uninspected towing vessel. The result was the enactment of Public Law 92-339 (46 USC 8904, formerly 46 USC 405 (b)(2)) in 1972 to require that the person in charge of operating an uninspected towing vessel be licensed. Through licensing, the operator would be required to acquire experience and demonstrate acceptable knowledge before assuming the responsibility for operating the vessel.

The term "operator" was selected for the new license. The Coast Guard considered it a direct contravention of the congressional intent to extend the conventional master/mate/pilot concepts to the new license. Throughout the congressional hearings held before enactment of the law, the towing industry maintained that

their unlicensed towboat operators were excellent seamen. However, with their limited education, they would have extreme difficulty in passing an examination. Therefore, the resulting regulations recognized the limited educational background of many towboat operators by reducing the scope of knowledge required for licensing. Applicants for OUTV licenses were only tested on the knowledge necessary to navigate and safely direct the operation of the vessel.

Although formal training was not required, the traditional apprenticeship training of the master/mate licenses carried into the OUTV regulations. In addition, an OUTV license was limited to a broad geographic route: oceans, inland, Great Lakes, or Western Rivers. The routes corresponded to the different navigation rules (Rules of the Road) then existing. While the regulations provided for special cases, in general no limitations other than route were placed on an OUTV license. The regulations also provided for a second-class OUTV license that was obtainable with reduced experience to serve as an entry-level license. While a second-class OUTV may operate a towing vessel, an OUTV must also be on board as part of the crew.

When the original regulations were developed, several commenters recommended that a gross tonnage or other suitable limitation be included on the license. This was not done because the 200 GT limitation for oceans and coastwise routes limited the validity of those OUTV licenses. Also, at that time, the Coast Guard believed that gross tonnage was not an accurate indication of the overall capability of a towboat to move a tow. After considering all the comments, the Coast Guard decided to use route limitations only.

Although the operator of a towing vessel requires many professional skills, some of those skills relate to the type of towing being conducted. Towing on the Western Rivers is almost exclusively push-towing. On the inland waters and the Great Lakes, vessels tow by pushing ahead or alongside, as well as by towing astern on a hawser. In ocean and coastwise service, towing astern on a hawser is the most common, though other forms may be used. However, the examination for an OUTV license only tests the applicant's knowledge of a few topic areas. It contains fewer questions than the test for a license as master of an inspected vessel of 200 GT. However, a master of a vessel of less than 200 GT may not serve as an OUTV, only a second class OUTV. A licensed master, mate, or pilot for vessels over 200 GT may serve as an OUTV within the limitations of the license. The requirements for a license as master, mate, or pilot of vessels over 200 GT do not include experience on towing vessels. However, all of the other requirements are similar to or exceed those for OUTV. At the time the original OUTV licensing regulations were issued, the Coast Guard took the position in Navigation and Vessel Inspection Circular 3-74, "Management must assume some responsibility in this area if they hire such

personnel." "Such personnel" refers to holders of licenses other than OUTV.

As the horsepower of the towing vessel increased, the number of barges being propelled also increased. It is not uncommon to have tows on the Western Rivers consisting of 20, 30 or more barges. The total tonnage of the tow exceeds that of an inspected, self-propelled vessel carrying the same amount of cargo. In addition, economical barge transportation has created a demand for the movement of many hazardous chemicals and petroleum products by water.

The highest powered U.S. flag towing vessel in oceans service has 18,200 HP. On the Western Rivers, the highest horsepower towing vessel has 10,500 HP. There is little correlation between gross tonnage and horsepower. In the 300 to 399 gross ton range, the horsepower ranges from 760 to 7,260 HP and forty percent of these vessels have 1,800 HP or less. In the 600 to 699 gross ton range, the vessels have from 1,400 to 6,700 HP.

The international maritime community recognized the necessity of establishing standards for watchkeeping personnel and in 1978 adopted the International Convention on Standards for Training, Certification and Watchkeeping for Seafarers, 1978 (STCW). The STCW includes standards of knowledge for watchkeeping officers on sea-going or near coastal vessels of less than 200 GT. Standards may be relaxed if a Party believes them unreasonable for a small vessel. Parties must consider then the effect of the relaxation on the safety of all ships operating in the same waters. The United States became party to the convention on 1 October 1991.

Current regulations require three years service before an applicant can qualify for an OUTV license. There are two alternatives for acquiring this service and both include six-months training or duty in the wheelhouse. In 1987, requirements for formal training in firefighting, CPR, and first aid were added. Three alternatives are available to an applicant for a second-class OUTV license and may require up to three-months training in the wheelhouse.

An OUTV is not required to have a radar observer endorsement or other formal training in the use of radar, even though most tugs/towboats have radar. The requirements for radar observer endorsements arose from a series of radar-assisted collisions in the 1950's. While the regulations authorize a radar observer endorsement for inland waters, the existing course standards stress collision avoidance. Plotting to determine the closest point of approach, the course and speed of a contact, and methods to maneuver to avoid collision have limited application on inland waters. Many inland waterways have marked or defined channels or are so limited in geographic extent that these skills are virtually useless. Further, on-scope plotting is not feasible with many radars in use today. The Maritime Administration is responsible for developing the curricula for the radar courses,

and the Coast Guard is responsible for approving the schools that teach the course.

When the regulations in 46 CFR Part 10 were revised in 1987, minor changes were made to the requirements for an OUTV license. The broad geographic routes were carried forward with slight changes reflecting the 1981 unification of the Rules of the Road. While not specifically stated in the regulations, the traditional hierarchy of routes of the master/mate's licenses was extended to the Great Lakes and the Western Rivers as a matter of policy. For example, with this policy, an OUTV licensed for oceans or inland waters could navigate on the Western Rivers with no further examination. The OUTV licensing regulations do not currently contain clear guidance on the areas of operation authorized for each route.

#### Requirements for Reporting Marine Casualties and Hazardous Conditions

By statute contained at Title 46 United States Code, Sections 6101 and 6301 (46 USC 6101, 6301), the Coast Guard is responsible for the investigation of marine casualties. (See Enclosure 8.) By regulation contained in 46 CFR Part 4, the Coast Guard has implemented this law and defined the various categories of marine casualties that are required to be reported. (See Enclosure 6.) The Coast Guard initiates an investigation into every report of a casualty first to determine if it is a "reportable marine casualty". If the casualty is determined to be "reportable", then the investigation continues until all of the six statutory purposes contained at 46 USC 6301, when applicable, have been satisfied.

The Coast Guard is also authorized to investigate any incident which affects or may affect the safety or environmental quality of the ports, harbors, or navigable waters of the United States under 33 USC 1227. (See Enclosure 9.) There are many ways that the Coast Guard may become aware of marine casualties or other incidents. A vessel may experience equipment difficulties while underway and radio the Coast Guard for assistance or radio a mayday while on the brink of capsizing. A vessel owner or operator may notify the Coast Guard in writing by submitting a form CG-2692 (See Enclosure 10.) regarding an incident that was not life threatening and did not require immediate assistance. A vessel in communication with the local Vessel Traffic Service (VTS) System may pass on information about an incident they experienced. If the Coast Guard discovers a chemical or oil spill while conducting a routine patrol, information regarding the spill is obtained from the responsible facility or vessel, if possible. A Coast Guard Rescue Coordination Center may receive information about a transmission from an Emergency Position Indicating Radio Beacon (EPIRB) which may indicate that a vessel

has capsized or sunk. Occasionally, a third party may witness a casualty and notify the local Coast Guard Marine Safety or Marine Inspection Office.

The action taken by the Coast Guard upon notification of a marine casualty depends upon the type of casualty reported. In the case of immediate danger to a vessel in distress at sea, the Coast Guard begins search and rescue procedures. Such cases are often followed by a safety investigation including, if appropriate, recommendations for initiating changes to various requirements or standards for licensing, manning, stability, lifesaving or firefighting equipment, etc. If the Coast Guard is notified of a casualty that does not require Coast Guard assistance or on-scene investigation, the local Coast Guard Investigating Officer may contact the vessel operator and request the required written notification (CG-Form 2692) containing information regarding the incident.

Comments from Coast Guard field offices indicate that, typically, the Coast Guard becomes aware of marine casualties involving inland towing vessels through VHF radio transmissions, written notification or a call from the company whose vessel was involved in an incident. Written notification of marine casualties is required within five (5) days of the incident by 46 CFR 4.05-10. Comments also indicate that timely initial notification frequently is not provided. Routinely, Coast Guard Investigating Officers have to maintain constant communication with the persons responsible for casualty reporting to receive the required paperwork. It is not uncommon to receive written notification of an incident thirty (30) days after an incident occurred.

#### Marine Casualty Reporting Requirements

46 CFR 4.03-1 defines a marine casualty as "any accidental grounding, or any occurrence involving a vessel which results in damage by or to the vessel, its apparel, gear, or cargo, or injury or loss of life of any person; and includes among other things, collisions, strandings, groundings, foundering, heavy weather damage, fires, explosions, failure of gear and equipment and any other damage which might affect or impair the seaworthiness of the vessel." This definition does not explicitly include collisions with bridges or other fixed structures, unless the casualty happens to meet one of the other noted criteria.

46 CFR 4.05-1 requires that the owner, agent, master or person in charge of a vessel involved in a marine casualty "give notice as soon as possible" to the nearest Coast Guard Marine Safety or Marine Inspection Office.

#### Hazardous Condition Reporting Requirements

33 CFR 160.203 defines a hazardous condition as "any condition that could adversely affect the safety of any vessel, bridge,

structure, or shore area or the environmental quality of any port, harbor, or navigable water of the United States." (See Enclosure 11.) This condition could include but is not limited to, fire, explosion, grounding, leaking, damage, illness of a person on board, or a manning shortage.

33 CFR 160.215 requires that the owner, master, agent or person in charge "immediately notify the Captain of the Port" whenever there is a hazardous condition on board the vessel. (See Enclosure 12.)

### Penalties

The maximum civil penalty assessment under 46 USC 6103 for failure to report a marine casualty is \$1,000. (See Enclosure 13.)

The maximum civil penalty assessment under 33 USC 1232 for failure to report a hazardous condition is \$25,000. (See Enclosure 14.)

## Bridge Fendering Systems and Navigational Lighting

Several United States statutes govern the construction, maintenance, and operation of bridges over the navigable waters of the United States. The Coast Guard assumed responsibility for administration of these bridge statutes from the Army Corps of Engineers in 1967. There are an estimated 18,000 bridges, including highway and railroad bridges, which cross navigable waters of the U.S. and are therefore subject to Coast Guard jurisdiction. Of these, approximately 10,000 were explicitly approved by individual federal permit action by either the Corps of Engineers or the Coast Guard. The remainder were approved either under general permit (Advanced Approval Category) or were lawfully constructed before enactment of the bridge statutes. The highway bridges are owned mainly by state or local governments, and the railroad bridges are owned by the rail corporations. The Coast Guard has 15 employees at Coast Guard Headquarters in Washington, D.C., and approximately 41 employees apportioned among 10 Coast Guard District Offices who are dedicated to the Bridge Program.

Under Title 33 USC 401, 502, 491-495, 525, and 530, the Secretary of Transportation must approve any bridge proposed to be constructed across certain navigable waters of the United States. (See Enclosure 15.) This approval authority and the authority to impose any specific conditions on the permit document relating to

construction, maintenance and operation of the bridge in the interest of public navigation is delegated to the Coast Guard.

### Navigational Lighting

Bridges over navigable waterways which support significant nighttime vessel traffic are required to display and maintain navigational lights in accordance with 33 CFR, Part 118. (See Enclosure 16.) The Coast Guard District Commander must approve navigational lights and other marine signals prior to bridge construction and may require additional lighting if the nature of navigation changes. Due to the significant cost of installing and maintaining navigational lighting, bridges over minor waterways where there is no traffic or very little nighttime traffic may be exempted by the District Commander from the requirement to display such lights.

### Fendering Systems

It is the Coast Guard's policy to require bridge fendering systems on the basis of present and foreseeable future navigation transiting the proposed bridge. Deviation from the previously approved plans either before or during completion of new structures must be approved by the Secretary of Transportation. Once a bridge is constructed, it is the responsibility of the bridge owner to maintain fendering systems and navigational lighting.

The purpose of installing bridge fenders is to protect the bridge structure from being contacted by vessels and barges. However, fenders are struck on a regular basis, both intentionally and unintentionally. It is a common practice for vessels to use the fenders as a guide or a tool for maneuvering under the bridge span. Towboat operators often intentionally brush their barges against the fenders in order to maintain a straight course or as a means to pivot their tow for an approaching bend in the waterway. In addition, when a towboat is maneuvering a large tow, the momentum built up is so great that it can be extremely difficult for the towboat to realign itself if it gets even slightly off course. Routinely, bridge fenders will be struck.

In the case of the CSX Railroad Bridge across Big Bayou Canot, although the bayou is a navigable water of the U.S. in law due to tidal influence, in fact navigation, if any, is limited to occasional local recreational boating and no commercial navigation. Nighttime navigation is not prevalent, even by locals. It is the only bridge crossing the waterway. There is no record of either the Corps of Engineers or the Coast Guard having issued a specific permit approving this bridge which was constructed in 1909. Prior to this accident, there were no indications that mandatory lighting or fendering was needed at this location for navigation safety.

Currently, the Coast Guard Bridge Program does not have the resources necessary to regularly inspect the fendering systems or lighting on all of the approximately 18,000 bridges under its jurisdiction. However, if the Coast Guard discovers that any fendering system is in need of repair or that any lights are not properly operating, the bridge owner is notified of any necessary repairs. Fortunately, in most instances the Coast Guard is able to depend upon the local mariner and auxiliaries to pass information to local Coast Guard units regarding problems with bridges under which they navigate.

### Retroactive Requirements

The bridge statutes previously cited do not contain authority to retroactively require the installation of fenders if the permit which authorized construction of the bridge did not require fenders. However, retroactive requirements to install fenders can be addressed under the provisions of the Port and Waterways Safety Act. It should be noted that due to the cost of installing fenders, historically, bridge owners have not favored construction of such systems, especially in those areas where navigation is not significant.

### Adequacy of the Navigation Equipment for Uninspected Towing Vessels

46 USC 4102 prescribes safety equipment required on uninspected towing vessels. (See Enclosure 17.) Each uninspected towing vessel propelled by machinery is required to (1) carry and maintain fire extinguishers capable of promptly and effectively extinguishing burning liquid fuel; (2) carry at least one readily available life preserver or other lifesaving device for each individual on board; (3) equip carburetors of each engine of the vessel using gasoline as fuel with an efficient flame arrestor, backfire trap, or other similar device; (4) have the means to ventilate the bilges of the engine and fuel tank compartments so as to remove any explosive or flammable gases if a volatile liquid is used as fuel; and (5) if operating on the high seas or beyond three nautical miles from the coastline of the Great Lakes, be equipped with a specified number and type of alerting and locating equipment, including emergency position indicating radio beacons.

Under 46 USC 4106, failure to comply with the above provisions subjects the owner, charterer, managing operator, agent, master, and individual in charge to a civil penalty of not more than \$5,000. The vessel is also liable in rem for the penalty.

Under the Vessel Bridge-to-Bridge Radiotelephone Act, 33 USC 1201-1208 (See Enclosure 18.), every towing vessel of 26 feet or over in length is required to have a radiotelephone capable of operation from its navigational bridge, and capable of transmitting and receiving on the frequency or frequencies within the 156-162 mega-hertz band using the classes of emissions designated by the Federal Communications Commission, after consultation with other cognizant agencies, for the exchange of navigational information. The civil penalty for non-compliance is \$500. 33 CFR Part 26 implements the provisions of the Vessel Bridge-to-Bridge Radiotelephone Act. (See Enclosure 19.)

Under the International and Inland Navigation Rules (Rules), a vessel of 12 meters or more in length is required to carry a copy of the Rules for ready reference, a whistle, a bell, and if 100 meters or more in length, also a gong. The Rules further prescribe how this equipment is to be used to prevent collisions.

In light of recent incidents, it appears that the above requirements may not provide an operator of an uninspected towing vessel with all of the necessary tools with which to make prudent decisions regarding the operation of the vessel. This view may be shared by industry as it is not uncommon for uninspected towing vessels to carry other navigation equipment, even though not legally required to do so.

Recently, representatives from five towing industry companies were interviewed to determine what equipment they carried on their vessels to ensure safe navigation. The areas of operation for these companies included the Western Rivers, the Gulf Intracoastal Waterway from Brownsville, Texas to Panama City, Florida, the Chesapeake Bay, the Pacific Ocean and coastwise (Puget Sound, San Francisco, California), and coastal from Canada to Mexico and Central America.

All five companies equip their vessels with radar, and those vessels used in ocean and coastwise trade require a second radar. Charts and publications (light lists were specifically mentioned) of the area being transited are also required equipment for these five companies. The value of compasses was questioned. One company uses them on open sounds and bays, while another uses them on the Gulf only. The general view of these representatives was that compasses are of little value when navigating rivers. Depth finders were considered unnecessary for vessels navigating on the Gulf Intracoastal Waterway as it is a dredged channel with an established project depth that is known to mariners. Depth finders were considered to be useful in river and coastwise navigation.

The companies engaged in towing on ocean and coastwise routes also carry most of the following additional equipment: Loran-C, automatic pilots (iron mikes), satellite navigation equipment (SATNAV), gyrocompasses, automatic radar plotting aids (ARPA).

New technology equipment is added as it is developed (such as global positioning system receivers (GPS)).

## Adequacy of the Aids to Navigation System

### for Marking the Approaches to Bridges

#### Over Navigable Waterways

Requirements for marking approaches to bridges with aids to navigation (ATON) are widely varied based on the nature of waterway traffic in each particular location. District commanders are responsible for establishing and maintaining aids to navigation systems for their areas of responsibility. General guidelines for ATON system design are provided in the Aids to Navigation Manual - Administration (COMDTINST M16500.7).

Although approaches to bridges are not specifically addressed in the guidelines, these approaches are considered as part of the overall waterway's ATON system design. The Waterways Analysis and Management System (WAMS) provides a systematic process for identifying a waterway's ATON requirements, in consultation with waterway users. Every waterway is periodically reviewed using the WAMS process to validate the adequacy of its aids to navigation.

In light of the recent incident in the Mobile River, the Eighth Coast Guard District has conducted a WAMS Study Update to determine if the aids to navigation in the area of Big Bayou Canot are adequate. A summary of the results of that analysis is attached. (See Enclosure 20.).

#### Proposed Legislation

As a result of the Amtrak Sunset Limited passenger train derailment, Congressmen Tauzin, Studts, Fields, and Coble introduced a bill (H.R. 3282) in the House of Representatives to improve towing vessel navigational safety. (See Enclosure 21.) This bill is currently under consideration by the Committee on Merchant Marine and Fisheries.

The proposed legislation would require towing vessels to be equipped with navigational publications and equipment as prescribed by the Secretary of Transportation, including (1) marine charts of the area being transited; (2) navigational publications for the area being transited; (3) compasses; (4) radar; and (5) a fathometer. It would also require operators of towing vessels to demonstrate proficiency in the use of navigational safety equipment before issuance or renewal of their license.

The proposed legislation would require the reporting of marine casualties "as soon as practicable, but in no case later than within 5 days."

In addition, the proposed legislation would require the submission of reports to Congress on the adequacy and effectiveness of manning and licensing requirements for operation of towing vessels and on the feasibility of establishing a differential global positioning satellite navigation system for the inland waterways of the United States.

## CONCLUSIONS

1. The majority of personnel and vessel casualties involving uninspected towing vessels are directly attributable to human error.
2. The majority of marine casualties involving uninspected towing vessels occur on the Western Rivers.
3. The majority of tow allisions with bridges occur on the Upper Mississippi River.
4. A towing vessel exists to propel or control one or more other vessels. Therefore, the towing vessel should be considered as part of a system rather than a stand-alone unit. The "towing-vessel system" can include a tug or towboat and tow that may be over 25,000 GT and propelled by as much as 18,000 HP.
5. Horsepower is a more reasonable indicator of a towing vessel's capabilities than gross tonnage. The number of barges that a towing vessel can handle is dependent on horsepower. Enhanced skills are required to safely operate the larger vessels and their tows.
6. The apprenticeship required for an OUTV license provides insufficient experience for an unlimited license allowing the holder to operate tows with total tonnages over 25,000 GT.
7. The standards of training required for an OUTV license are inadequate for an unlimited license, particularly in regards to the use and interpretation of radar.
8. The knowledge required for issuance of an unlimited OUTV license is basic and limited. While it may have been adequate for all vessels in 1972, additional knowledge, skills and abilities are required to operate high horsepower towing vessels.

9. On the Western Rivers, the method of towing, the aids to navigation, the operating methods, and the operating environment are unique. Qualification as an OUTV on oceans, near coastal, or inland waters does not qualify the holder to operate safely on the Western Rivers.

10. The OUTV license with an oceans (domestic trade) route does not conform to the standards of the STCW. This route was established at the 1987 revision to the licensing regulations and stems from the previous ocean route authorized for OUTV.

11. The experience required for a license as master or mate of a vessel of 500/1,600 GT is insufficient qualification to serve as an OUTV on high horsepower towing vessels.

12. The phrase "as soon as possible" in 46 CFR 4.05-1 is not definitive and it leaves considerable room for personal interpretation of how quickly reporting of marine casualties should be provided. In addition, there are no requirements to report allisions with bridges or other structures unless the casualty meets one of the other reporting criteria.

13. 33 CFR 160.215 clearly requires immediate reporting of a hazardous condition on board a vessel. It does not specifically require immediate reporting of a hazardous condition involving a bridge or other structure.

14. The \$1,000 penalty under 46 USC 6103 for failing to report a marine casualty is not an adequate deterrent. Mariners may risk the penalty because it is fairly lenient and they are hopeful that the incident will not be detected.

15. The \$25,000 penalty under 33 USC 1232 appears to provide an adequate deterrent for non-reporting because, historically, the Coast Guard has not had difficulty receiving timely notification related to hazardous conditions on board vessels.

16. Unless an inspection is made of all bridges under the Coast Guard's jurisdiction, the overall adequacy of existing bridge fendering and navigational lighting systems cannot be determined. Currently, however, the Coast Guard's Bridge Program does not have adequate resources to undertake such an inspection regime.

17. Administration of the bridge statutes includes a focus on identifying the need for fendering and lighting on bridge projects. The Coast Guard has sufficient legislative and regulatory authority under the Ports and Waterways Safety Act of 1972 and 33 CFR 118.40 to remedy deficiencies in bridge fendering and lighting which may be discovered at existing bridges. These authorities are contained in enclosures (16) and (17).

18. Appropriate navigation equipment and information is available to assist the mariner on the inland waterways. While many towing companies voluntarily equip their vessels with

appropriate navigation equipment, there are some companies that do not.

19. In order to ensure that the mariner has the tools necessary to operate the vessel in a safe manner, regulations prescribing specific navigation equipment are needed. Use of depth finders and compasses seems to be driven by area of operation and should not be universally required on all towing vessels.

20. The present Waterways Analysis and Management System (WAMS) is adequate for identifying a waterway's ATON requirements. The aids to navigation authorized in the Aids to Navigation Manual - Technical (COMDTINST M16500.3A) provide an adequate selection for use by Coast Guard waterway ATON system designers.

21. H.R. 3282 addresses many of the same issues discussed in this review. However, this proposed legislation does not include an increase in the maximum civil penalty for failure to report a marine casualty. In addition, the proposed legislation would require compasses and fathometers on all towing vessels in lieu of taking into consideration the area of operation of the towing vessel.

## RECOMMENDATIONS

1. The OUTV license should have levels of qualification. Restrictions for such levels of qualification may include route, gross tonnage or horsepower of the towing vessel, type of towing configuration, etc. The basic three-year apprenticeship should qualify an applicant for a basic OUTV license only.

2. OUTV's holding a basic license should be able to increase the scope of their license after acquiring additional service. In addition to service, they should be required to attend a Coast Guard approved simulator course, pass a written or simulator examination, or some combination thereof.

3. OUTV's seeking to increase the scope of their license to the highest level should be required to attend a Coast Guard approved simulator course.

4. All OUTV's should be required to demonstrate their skills on a simulator when renewing a license.

5. Regulations should be developed that limit a second-class OUTV to service on smaller towing vessels. The operator for larger vessels should always be an OUTV.

6. The Coast Guard should establish a policy that the Western Rivers route for OUTV not be included in the hierarchy of routes. Applicants desiring a Western Rivers route on their license must

acquire operating experience on that route and pass an appropriate examination.

7. Regulations should be developed requiring a radar equipped towing vessel more than 26 feet in length to be operated by an OUTV qualified as a radar observer.

8. The Coast Guard and MARAD should review the existing standards of the approved inland radar observer courses. The review should determine if the existing curriculum meets the operational and safety needs of the inland mariner. In addition, the review should develop the standards necessary to reflect current technology.

9. The Coast Guard, with assistance from the Towing Safety Advisory Committee, should review the oceans (domestic trade) route authorized for an OUTV license and propose alternatives that conform to international standards.

10. Regulations should be developed to specify the equivalency of licensed masters and mates of 500/1,600 GT vessels to service as an OUTV. Licensed masters of vessels of 200 GT or less should be limited to service as a second-class OUTV.

11. The Coast Guard should initiate a regulatory project to amend Title 46 CFR 4.05-1 to require that casualties be reported immediately after the resulting safety concerns have been addressed. In addition, all unintentional allisions with bridges or other structures should be reported.

12. The Coast Guard should initiate a legislative proposal to amend 46 USC 6103 to increase the maximum civil penalty from \$1,000 to \$25,000 for failing to report a marine casualty as defined under 46 CFR 4.05-1.

13. The Coast Guard should initiate a regulatory project to amend 33 CFR 160.215 to clearly indicate that the required notice of a hazardous condition includes a hazardous condition caused by a vessel or its operation even when the hazardous condition is not on board the vessel.

14. It is recommended that each Coast Guard district conduct a survey of all bridges under Coast Guard jurisdiction and make a case-by-case determination regarding the adequacy of existing systems, and the requirement for additional fendering systems, and the requirements, if any, for additional bridge lighting.

15. The Coast Guard should initiate rulemaking under authority of the Ports and Waterways Safety Act (33 USC 1231) to require that all uninspected towing vessels carry:

1. a marine radar system for surface navigation;

2. marine charts for the area to be transited. Charts published by the National Ocean Service (NOS) should be carried in areas they cover, and charts published by the U.S. Army Corps of Engineers in areas where there are no NOS charts; and

3. current or corrected publications: Coast Pilot (where coverage exists), Light List and local notice to mariners for area to be transited. The Coast Pilot is published by NOS to supplement navigational information shown on the nautical charts. The Coast Guard publishes the Light List which contains a list of lights, sound signals, buoys, daybeacons, radar responder beacons (RACONS) and radiobeacons. The Light List provides more complete information concerning aids to navigation than can be conveniently shown on charts. However, it is not intended to be used in place of charts, but as a source of additional information. Amendments to the Coast Pilot and changes made to aids to navigation are published in the Local Notice to Mariners.

In addition, the rulemaking should seek to identify areas of operation where a compass and depth finder are necessary tools for safe navigation. This will result in carriage requirements while navigating in specified areas.

16. The Coast Guard should amend the Aids to Navigation Manual - Administration (COMDTINST M16500.7) to specifically address the need to consider approaches to bridges in the design for Aids to Navigation Systems.

17. The Commander, Eighth Coast Guard District should initiate the improvements in the vicinity of Big Bayou Canot recommended in the WAMS Study Update for the Mobile River.

18. The Coast Guard should emphasize the responsibility of towing vessel owners to employ qualified, experienced personnel as operators in charge (or masters) of their vessels.

19. The Coast Guard should support H.R. 3282 and discuss with Congressional staff the inclusion of provisions for an increased maximum civil penalty for failure to report marine casualties and provisions to link the requirement for compasses and fathometers to the area of operation of a towing vessel.



A. E. HENN  
Chief, Office of Marine Safety,  
Security and Environmental Protection



W. J. ECKER  
Chief, Office of Navigation Safety  
and Waterway Services

Enclosures

## ENCLOSURES

- (1) Commandant, U.S. Coast Guard Memorandum dated September 27, 1993
- (2) Uninspected Towboat Casualty Data
- (3) Uninspected Towboat Deaths and Injuries
- (4) Uninspected Towboat Deaths and Injuries by Gross Tonnage
- (5) Bridge Allisions by Waterway
- (6) 46 CFR, Part 4 – Marine Casualties and Investigations
- (7) Allisions to Tow Transit Ratios
- (8) 46 U.S. Code, Section 6101
- (9) 33 U.S. Code, Section 1227
- (10) U.S. Coast Guard Form CG-2692
- (11) 46 CFR 160.203
- (12) 46 CFR 160.215
- (13) 46 U.S. Code, Section 6103
- (14) 33 U.S. Code, Section 1232
- (15) 33 U.S. Code, Section 401, 491, 493–495, 502, 525, 530
- (16) 33 CFR, Part 118 – Bridge Lighting and Other Signals
- (17) 46 U.S. Code, Section 4102
- (18) 33 U.S. Code, Section 1201–1208
- (19) 33 CFR, Part 26 – Vessel Bridge-to-Bridge Radiotelephone Regulations
- (20) Mobile River WAMS Update Study Summary
- (21) H.R. 3282

U.S. Department  
of Transportation

United States  
Coast Guard



# Memorandum

Subject: REVIEW OF MARINE SAFETY ISSUES

Date: SEP 27 1993

From: Commandant

Reply to:

Attn. of: G-C X72380

To: Chief, Office of Marine Safety, Security and  
Environmental Protection  
Chief, Office of Navigation Safety and Waterway  
Services

1. As a result of the derailment of the Amtrak Sunset Limited passenger train at Big Bayou Canot, Alabama on September 22, 1993, I am directing you to conduct a review of the following areas of Coast Guard responsibility or oversight:

a. The adequacy and effectiveness of the licensing requirements for operators of uninspected towing vessels.

b. The history of incidents involving operators of uninspected towing vessels.

c. The adequacy of the requirements for the reporting of marine casualties and hazardous conditions involving vessels and the adequacy of the penalties for failure to report such incidents.

d. The adequacy of the aids to navigation system for marking bridges and for marking the approaches to bridges over navigable waterways, and the adequacy of the navigation equipment requirements for uninspected vessels.

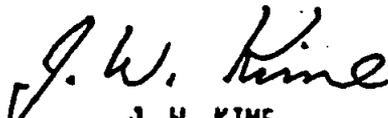
2. Where any facts or circumstances uncovered during the investigation of this specific casualty might have an impact on your review, you are to take them into account. To the extent that any areas of inadequacy appear to be the result of statutory constraint or limitations of authority, those constraints or limitations, as well as recommendations for proposed remedial legislation, should be identified. Where any area of inadequacy is subject to remediation through regulatory action, those areas as well as a proposed

ENCLOSURE(1)

SUBJ: REVIEW OF MARINE SAFETY ISSUES

regulatory action should be likewise identified. The Office of the Chief Counsel is directed to support your review in this regard.

3. Complete your review and present your report, including your conclusions and recommendations, to me by December 1, 1993.

  
J. W. KIME

Copy: G-L

THIS IS A DISTRIBUTION OF VESSEL CASUALTIES FOR UNINSPECTED TOWBOAT/TUGBOAT.  
(WHERE IC\_IND(inspection indicator )IS NULL OR GROSS TONS <300 AND ROUTE IS NOT = "00").

CAUSE	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	TOTAL
OPERATOR ERROR	53	185	166	164	160	145	262	251	336	442	455	313	2932
ERROR IN JUDGEMENT	106	251	319	240	279	274	200	197	139	125	63	48	2241
SHOALING	11	34	45	91	88	83	81	113	218	129	86	57	1036
FAILED TO ALLOW FOR CURRENT	30	107	88	142	106	34	23	34	56	30	31	17	698
FAILED MATERIALS,MECHANICAL	13	33	53	60	52	45	80	67	86	58	62	40	649
UNKNOWN	33	63	69	49	53	57	38	45	36	22	20	7	492
FAILED MATERIALS, OTHER	6	35	29	39	21	56	51	54	43	69	63	16	482
FAIL TO ASCERTAIN POSN	9	61	36	24	41	20	40	27	72	14	7	1	352
ADVERSE WEATHER	15	32	30	57	20	34	26	23	37	26	22	22	344
ADVERSE CURRENT	1	9	24	33	14	13	10	11	80	14	31	17	257
FAILED MATERIAL, STRUCTURAL	2	16	13	13	11	24	17	20	42	30	45	19	252
NOT ELSEWHERE CLASSIFIED	7	35	96	62	11	2	3	6	5	6	2		235
UNCHARTERED HAZARD	10	31	12	50	16	8	5	12	18	38	13	19	232
FAILED MATERIALS, ELECTRICAL	2	31	14	16	26	17	21	22	19	23	16	14	221
SUBMERGED OBJECT	5	19	15	12	20	19	10	8	28	17	14	12	179
UNMARKED CHANNEL HAZARD	8	46	3	16	5	5	11	12	15	12	6	9	148
INATTENTION TO DUTY	10	18	7	4	9	4	18	23	24	5	10	3	135
CHANNEL NOT MAINTAINED		4		3	4		3	1	103	8	1		127
CARELESSNESS	1	12	5	10	7	10	8	8	8	14	15	3	101
FAIL TO ESTAB PASS AGREEMNT	4	9	13	14	10	10	7	7	7	4	10	2	97
IMPROPER MOORING/TOWING	4	8	7	9	5	11	15	13	9	6	8	1	96
STEERING FAILURE	3	14	10	7	2	2	9	17	19	10	1	2	94
PROPULSION FAILURE	1	6	13	3	5	18	14	7	14	9	2	2	94
FAIL ACCT TIDE/RIVER STAGE	6	4	10	19	10	5	2	6	22	7	4	4	93
FAIL TO COMPLY RULE, REG, PRO	1	12	17	14	12	3	1	1	6	3	1	6	82
FAIL TO KEEP PROPER LOOKOUT	1	23	11	10	5	6	7	4	3	5	6		81
IMPROPER MAINTENANCE	2	4	1	6	11	9	4	15	13	4	6	5	80
CALCULATED RISK	1	3	8	1	12	8	9	8	11	6	6	1	74
SUCTION BANK/BOTTOM, VESSEL	1	1	12	12	13	5	5	5	1	6	6	13	73
IMPROPER AID LOCATION	1	2	1	6	7	2	8	5	5	12	8	10	67
IMPROPER SAFETY PRECAUTIONS	1	6	3	3	1	10	7	11	11		2	1	56
FAIL TO RIGHT OF CHANNEL	8	7	9	2	2	2	5	5	2	5	4	1	51
IMPROPER SECURING/RIGGING	1	8	8	8	14	4	1	1	3	6	2	1	49
FAIL PROCEED SAFE SPEED	5	6	8	5	6	3	8	1	1	1	3	2	48
ICE		3	13	4	1	15	2	1	7	1			47
FOULED PROPELLER	3		4	7	5	3	4	7	4	1	5	2	45
DEBRIS		4	3	1	3	4	6	7	5	4	3	3	43
IMPROPER LOADING		4	4	3	4	1	4	5	2	3	2	4	36
LACK OF KNOWLEDGE	1	1	2	2	8	3	1	4	4	3	2		31

ENCLOSURE(a-)





THIS IS A DISTRIBUTION OF THE DEATHS , INJURIES , MISSING , MISSING BY CAUSE  
 FOR UNINSPECTED TOWBOAT/TUGBOATS.  
 (WHERE IC\_IND(inspection indicator) IS NULL OR GROSS TONS <300 AND ROUTE IS NOT = "00" )

CAUSE TYPE	DEATH VESSEL CASUALTY	INJURED VESSEL CASUALTY	INJURED NON VESSEL CASUALTY	MISSING VESSEL CASUALTY	DEATH NON VESSEL CASUALTY	TOTAL
"P" TYPE	149	252	32	8	12	453
"V" TYPE	16	75	9	3	4	107
"E" TYPE	9	39	16	5	2	71
"M" TYPE	0	1	0	0		1
"U" TYPE	23	45	6	17	2	93
"N" TYPE	7	3	4	0	1	15
TOTAL	204	415	67	33	21	740

A "P" TYPE CAUSE SHOWS A RELATIONSHIP TO HUMAN INVOLVEMENT.  
 A "V" TYPE CAUSE SHOWS A RELATIONSHIP TO MATERIALS/EQUIPMENT.  
 A "E" TYPE CAUSE SHOWS A RELATIONSHIP TO "ACTS OF GOD". THAT IS NOT  
 ATTRIBUTABLE TO THE VESSEL OR THE PERSONNEL.  
 A "M" TYPE CAUSE SHOWS A RELATIONSHIP TO THIRD PARTY DEFICIENCIES.  
 THAT IS 'AN AID LOCATION IS IN ERROR'; 'INADEQUATE MANNING'.  
 A "U" TYPE IS AN 'UNKNOWN' RELATIONSHIP.  
 A "N" TYPE IS 'NOT ELSEWHERE CLASSIFIED, RELATIONSHIP.

ENCLOSURE(3)

DISTRIBUTION OF REPORTED DEATHS AND INJURIES

ON BOARD UNINSPECTED TOWING VESSELS BY GROSS TONNAGE (1980-1991)

GROSS TONNAGE	# VESSELS INVOLVED IN CASUALTIES	DEATHS/ INJURY
NULL	19	
< 50 GT	486	8/8 = 16
>= 50 GT AND < 100 GT	1089	10/12 = 22
>= 100 GT AND < 150 GT	1142	9/12 = 21
>= 150 GT AND < 200 GT	1294	6/23 = 29
>= 200 GT AND < 250 GT	416	1/10 = 11
>= 250 GT AND < 300 GT	405	2/3 = 5
>= 300 GT AND < 400 GT	442	3/6 = 6
>= 400 GT AND < 500 GT	451	1/4 = 5
>= 500 GT AND < 600 GT	627	1/1 = 2
>= 600 GT AND < 700 GT	360	2/3 = 5
>= 700 GT AND < 800 GT	270	0/0 = 0
>= 800 GT AND < 900 GT	98	0/0 = 0
>= 900 GT AND < 1000 GT	240	0/0 = 0
>= 1000 GT AND < 1100 GT	80	0/0 = 0
>= 1100 GT AND < 1200 GT	131	1/1 = 2
>= 1200 GT AND < 1300 GT	20	0/0 = 0
>= 1300 GT AND < 1400 GT	31	0/0 = 0
>= 1400 GT AND < 1500 GT	23	0/0 = 0
>= 1500 GT AND < 1600 GT	6	0/0 = 0
>= 1600 GT	<u>34</u>	<u>0/0 = 0</u>
TOTAL	7664	44/84

**ENCLOSURE(4)**

descrip	
UPPER MISSISSIPPI RIVER	182
INTER CSTL WTRWY	82
ILLINOIS RIVER	69
INTERNAL WTRS NOC	55
INTERNAL WATERS NOC	55
OHIO RIVER	40
LOWER MISS. RIVER (M507)	37
LOWER MISS RIVER-STARTS AT 507	28
TENNESSEE RIVER	20
NEWARK BAY-HCKNSCK R & PASSAIC R	16
INTER CSTL WATERWAY	15
ATCHAFALAYA RIVER	13
JAMES RV-INC NORFORK/NVPRT NWS	11
ELIZABETH RIVER	10
ARKANSAS RIVER	9
TOMBIGBEE RIVER	9
MOBILE RIVER	8
CSTL WTRS OFFSHR	8
PORTLAND HARBOR/RIVER	7
MISSOURI RIVER	6
LAKE PONCHARTRAIN	5
MISSISSIPPI SOUND	5
PUGET SOUND	4
GALVESTON BAY	4
CHESAPEAKE BAY	4
COLUMBIA RIVER	4
ST JOHNS RIVER	4
NOT SPECIFIED-FOREIGN	4
CASCO BAY	3
CUMBERLAND RIVER	3
SAN FRANCISCO BAY	3
LAKE WASHINGTON SC/LAKE UNION	3
ARTHUR KILL	2
ALABAMA RIVER	2
HOUMA CHANNEL	2
KILL VAN KULL	2
PACIFIC OCEAN	2
ALLEGHENY RIVER	2
NARRAGANSETT BAY	2
PORT ALLEN ROUTE	2
SACRAMENTO RIVER	2
CHARLESTON HARBOR	2
CONNECTICUT RIVER	2
MONONGAHELA RIVER	2
HUDSON RIVER - N OF 41 00	2
HUDSON RIVER-BATTERY TO 41 00N	2
EAST RIVER	1
MOBILE BAY	1
BERWICK BAY	1
GREEN RIVER	1
KANAWHA RIVER	1
PENSACOLA BAY	1
PORT OF LA/LB	1
CAPE COD CANAL	1
DELAWARE RIVER	1
LAKE ST. CLAIR	1
CAPE FEAR RIVER	1

ENCLOSURE(5)

descrip

A

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CSTL WTRS OFFSH 1  
BALTIMORE HARBOR 1  
PISCATAQUA RIVER 1  
WILLAMETTE RIVER 1  
SABINE/NECHES RIVER 1  
HOUSTON SHIP CHANNEL 1  
NEW YORK HARBOR-LOWER BAY 1  
GULF OUTLET-MISSISSIPPI RIVER) 1

\*\*\* END OF QUERY RESULTS \*\*\*

## PART 4—MARINE CASUALTIES AND INVESTIGATIONS

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Sec.

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AUTHORITY: 33 U.S.C. 1231, 43 U.S.C. 1333; 46 U.S.C. 2103, 2306, 6101, 6301, 6305, 50 U.S.C. 198; 49 CFR 1.46, except subpart 4.40 for which the authority is: 49 U.S.C. 1803(a)(1)(E); 49 CFR 1.46.

SOURCE: CGD 74-119, 39 FR 33317, Sept. 17, 1974, unless otherwise noted.

### Subpart 4.01—Authority and Scope of Regulations

#### §4.01-1 Scope of regulation.

The regulations in this part govern the reporting of marine casualties, the investigation of marine casualties and the submittal of reports designed to increase the likelihood of timely assistance to vessels in distress.

[CGD 85-015, 51 FR 19341, May 29, 1986]

#### §4.01-3 Reporting exclusion.

(a) Vessels subject to 33 CFR 173.51 are excluded from the requirements of subpart 4.05.

(b) Vessels which report diving accidents under 46 CFR 197.484 regarding deaths, or injuries which cause incapacitation for greater than 72 hours, are not required to give notice under §4.05-1(d) or §4.05-1(e).

(c) Vessels are excluded from the requirements of §4.05.1(d) and (e) with

respect to the death or injury of shipyard or harbor workers when such accidents are not the result of either a vessel casualty (e.g. collision) or a vessel equipment casualty (e.g. cargo boom failure) and are subject to the reporting requirements of Occupational Safety and Health Administration (OSHA) under 29 CFR 1904.

[CGD 76-170, 45 FR 77441, Nov. 24, 1980; 46 FR 19235, Mar. 30, 1981, as amended by CGD 76-170, 47 FR 39684, Sept. 9, 1982]

### Subpart 4.03—Definitions

#### §4.03-1 Marine casualty or accident.

(a) The term *marine casualty or accident* shall mean any casualty or accident involving any vessel other than public vessels if such casualty or accident occurs upon the navigable waters of the United States, its territories or possessions or any casualty or accident wherever such casualty or accident may occur involving any United States' vessel which is not a public vessel. (See §4.03-40 for definition of *Public Vessel*.)

(b) The term *marine casualty or accident* includes any accidental grounding, or any occurrence involving a vessel which results in damage by or to the vessel, its apparel, gear, or cargo, or injury or loss of life of any person; and includes among other things, collisions, strandings, groundings, foundering, heavy weather damage, fires, explosions, failure of gear and equipment and any other damage which might affect or impair the seaworthiness of the vessel.

(c) The term *marine casualty or accident* also includes occurrences of loss of life or injury to any person while diving from a vessel and using underwater breathing apparatus.

[CGD 74-119, 39 FR 33317, Sept. 17, 1974, as amended by CGD 76-170, 45 FR 77441, Nov. 24, 1980]

#### §4.03-2 Serious marine incident.

The term *serious marine incident* includes the following events involving a vessel in commercial service:

(a) Any marine casualty or accident as defined in §4.03-1 which is required by §4.05-1 to be reported to the Coast

## §4.03-25

Guard and which results in any of the following:

- (1) One or more deaths;
- (2) An injury to a crewmember, passenger, or other person which requires professional medical treatment beyond first aid, and, in the case of a person employed on board a vessel in commercial service, which renders the individual unfit to perform routine vessel duties;
- (3) Damage to property, as defined in §4.05-1(f) of this part, in excess of \$100,000;
- (4) Actual or constructive total loss of any vessel subject to inspection under 46 U.S.C. 3301; or
- (5) Actual or constructive total loss of any self-propelled vessel, not subject to inspection under 46 U.S.C. 3301, of 100 gross tons or more.
  - (b) A discharge of oil of 10,000 gallons or more into the navigable waters of the United States, as defined in 33 U.S.C. 1321, whether or not resulting from a marine casualty.
  - (c) A discharge of a reportable quantity of a hazardous substance into the navigable waters of the United States, or a release of a reportable quantity of a hazardous substance into the environment of the United States, whether or not resulting from a marine casualty.

[CGD 86-067, 53 FR 47077, Nov. 21, 1988]

### §4.03-4 Individual directly involved in a serious marine incident.

The term *individual directly involved in a serious marine incident* is an individual whose order, action or failure to act is determined to be, or cannot be ruled out as, a causative factor in the events leading to or causing a serious marine incident.

[CGD 86-067, 53 FR 47077, Nov. 21, 1988]

### §4.03-5 Medical facility.

The term *medical facility* means an American hospital, clinic, physician's office, or laboratory, where blood and urine specimens can be collected according to recognized professional standards.

[CGD 86-067, 53 FR 47077, Nov. 21, 1988]

### §4.03-6 Qualified medical personnel.

The term *qualified medical personnel* means a physician, physician's assistant, nurse, emergency medical technician, or other person authorized under State or Federal law or regulation to collect blood and urine specimens.

[CGD 86-067, 53 FR 47077, Nov. 21, 1988]

### §4.03-7 Chemical test.

The term *chemical test* means a scientifically recognized test which analyzes an individual's breath, blood, urine, saliva, bodily fluids, or tissues for evidence of dangerous drug or alcohol use.

[CGD 86-067, 53 FR 47077, Nov. 21, 1988]

### §4.03-10 Party in interest.

The term *party in interest* shall mean any person whom the Marine Board of Investigation or the investigating officer shall find to have a direct interest in the investigation conducted by it and shall include an owner, a charterer, or the agent of such owner or charterer of the vessel or vessels involved in the marine casualty or accident, and all licensed or certificated personnel whose conduct, whether or not involved in a marine casualty or accident is under investigation by the Board or investigating officer.

### §4.03-15 Commandant.

The Commandant, U.S. Coast Guard, is that officer who acts as chief of the Coast Guard and is charged with the administration of the Coast Guard.

### §4.03-20 Coast Guard district.

A Coast Guard district is one of the geographical areas whose boundaries are described in 33 CFR part 3.

### §4.03-25 District Commander.

The District Commander is the chief of a Coast Guard district and is charged with the administration of all Coast Guard responsibilities and activities within his respective district, except those functions of administrative law judges under the Administrative Procedure Act (60 Stat. 237, 5 U.S.C. 1001 *et seq.*) and activities of independent units of the Coast Guard, such as

#### §4.03-30

the Coast Guard Yard and the Coast Guard Academy.

#### §4.03-30 Investigating officer.

An investigating officer is an officer or employee of the Coast Guard designated by the Commandant, District Commander or the Officer in Charge, Marine Inspection, for the purpose of making investigations of marine casualties and accidents or other matters pertaining to the conduct of seamen. An Officer in Charge, Marine Inspection, is an investigating officer without further designation.

#### §4.03-35 Nuclear vessel.

The term *nuclear vessel* means any vessel in which power for propulsion, or for any other purpose, is derived from nuclear energy; or any vessel handling or processing substantial amounts of radioactive material other than as cargo.

[CGD 84-099, 52 FR 47534, Dec. 14, 1987]

#### §4.03-40 Public vessels.

Except as provided in subpart 4.40 vessels within the statutory exemptions of Title LII of the Revised Statutes of the United States (R.S. 4399-4500) (as amended) relating to the inspection of vessels, are public vessels, and therefore not subject to the regulations in this part. To be deemed public vessels such vessels must:

(a) Be used for a public purpose, not in trade or commercial service; and,

(b) Be owned outright by the United States; it is not sufficient that the United States holds the vessel under a bareboat charter.

[CGD 74-119, 39 FR 33317, Sept. 17, 1974, as amended by CGD 76-149, 42 FR 61200, Dec. 1, 1977]

#### §4.03-45 Marine employer.

*Marine employer* means the owner, managing operator, charterer, agent, master, or person in charge of a vessel other than a recreational vessel.

[CGD 84-099, 52 FR 47534, Dec. 14, 1987]

#### §4.03-50 Recreational vessel.

*Recreational vessel* means a vessel meeting the definition in 46 U.S.C.

2101(25) that is then being used only for pleasure.

[CGD 84-099, 52 FR 47534, Dec. 14, 1987]

#### §4.03-55 Law enforcement officer.

*Law enforcement officer* means a Coast Guard commissioned, warrant or petty officer; or any other law enforcement officer authorized to obtain a chemical test under Federal, State, or local law.

[CGD 84-099, 52 FR 47534, Dec. 14, 1987]

### Subpart 4.04—Notice of Potential Vessel Casualty

SOURCE: CGD 85-015, 51 FR 19341, May 29, 1986, unless otherwise noted.

#### §4.04-1 Reports of potential vessel casualty.

A vessel owner, charterer, managing operator or agent shall immediately notify either of the following Coast Guard officers if there is reason to believe a vessel is lost or imperiled.

(a) The Coast Guard district rescue coordination center (RCC) cognizant over the area the vessel was last operating in; or

(b) The Coast Guard search and rescue authority nearest to where the vessel was last operating.

Reasons for belief that a vessel is in distress include, but are not limited to, lack of communication with or non-appearance of the vessel.

#### §4.04-3 Reports of lack of vessel communication.

The owner, charterer, managing operator or agent of a vessel that is required to report to the United States Flag Merchant Vessel Location Filing System under the authority of section 212(A) of the Merchant Marine Act, 1936 (46 App. U.S.C. 1122a), shall immediately notify the Coast Guard if more than 48 hours have passed since receiving communication from the vessel. This notification shall be given to the Coast Guard district RCC cognizant over the area the vessel was last operating in.

(Information collection requirements approved by the Office of Management and Budget under control number 2115-0551)

## § 4.05-12

### § 4.04-5 Substance of reports.

The owner, charterer, managing operator or agent, notifying the Coast Guard under § 4.04-1 or § 4.04-3, shall:

(a) Provided the name and identification number of the vessel, the names of the individuals on board, and other information that may be requested by the Coast Guard (when providing the names of the individuals on board for a passenger vessel, the list of passengers need only meet the requirements of 46 U.S.C. 3502); and

(b) Submit written confirmation of that notice to the Coast Guard facility that the notice was given to within 24 hours.

(Information collection requirements approved by the Office of Management and Budget under control number 2115-0551)

## Subpart 4.05—Notice of Marine Casualty and Voyage Records

### § 4.05-1 Notice of marine casualty.

The owner, agent, master or person in charge of a vessel involved in a marine casualty shall give notice as soon as possible to the nearest Coast Guard Marine Safety or Marine Inspection Office whenever the casualty involves any of the following:

(a) All accidental groundings and any intentional grounding which also meets any of the other reporting criteria or creates a hazard to navigation, the environment, or the safety of the vessel;

(b) Loss of main propulsion or primary steering, or any associated component or control system, the loss of which causes a reduction of the maneuvering capabilities of the vessel. Loss means that systems, component parts, sub-systems, or control systems do not perform the specified or required function;

(c) An occurrence materially and adversely affecting the vessel's seaworthiness or fitness for service or route, including but not limited to fire, flooding, or failure or damage to fixed fire extinguishing systems, lifesaving equipment, auxiliary power generating equipment, or bilge pumping systems;

(d) Loss of life;

(e) Injury which requires professional medical treatment beyond first aid

and, in the case of a person engaged or employed on board a vessel in commercial service, which renders the individual unfit to perform routine vessel duties.

(f) An occurrence not meeting any of the above criteria but resulting in damage to property in excess of \$25,000. Damage cost includes the cost of labor and material to restore the property to the service condition which existed prior to the casualty, but does not include the cost of salvage, cleaning, gas freeing, drydocking or demurrage.

[CGD 76-170, 45 FR 77441, Nov. 24, 1980, as amended by CGD 82-069, 48 FR 15126, Apr. 7, 1983; CGD 86-067, 53 FR 47077, Nov. 21, 1988]

### § 4.05-5 Substance of marine casualty notice.

The notice required in § 4.05-1 must include the name and official number of the vessel involved, the name of the vessel's owner or agent, the nature and circumstances of the casualty, the locality in which it occurred, the nature and extent of injury to persons, and the damage to property.

[CGD 76-170, 45 FR 77441, Nov. 24, 1980]

### § 4.05-10 Written report of marine casualty.

(a) In addition to the notice required by § 4.05-1, the marine employer shall, within five days, report in writing to the Officer in Charge, Marine Inspection, at the port in which the casualty occurred or the nearest port of first arrival. The written report required for vessel or personnel accidents shall be made on Form CG-2692. The Form CG-2692A (Barge Addendum) may be used as needed and appended to Form CG-2692.

(b) If filed without delay, the Form CG-2692 may also provide the notice required by § 4.05-1.

[CGD 84-099, 52 FR 47534, Dec. 14, 1987]

### § 4.05-12 Alcohol or drug use by individuals directly involved in casualties.

(a) For each marine casualty required to be reported by § 4.05-10, the marine employer shall determine whether there is any evidence of alcohol or drug use by individuals directly involved in the casualty.

#### § 4.05-15

(b) The marine employer shall include in the written report, Form CG-2692, submitted for the casualty information which:

(1) Identifies those individuals for whom evidence of drug or alcohol use, or evidence of intoxication, has been obtained; and,

(2) Specifies the method used to obtain such evidence, such as personal observation of the individual, or by chemical testing of the individual.

(c) An entry shall be made in the official log book, if carried, pertaining to those individuals for whom evidence of intoxication is obtained. The individual must be informed of this entry and the entry must be witnessed by a second person.

(d) If an individual directly involved in a casualty refuses to submit to, or cooperate in, the administration of a timely chemical test, when directed by a law enforcement officer or by the marine employer, this fact shall be noted in the official log book, if carried, and in the written report (Form CG-2692), and shall be admissible as evidence in any administrative proceeding.

[CGD 84-099, 52 FR 47534, Dec. 14, 1987]

#### § 4.05-15 Voyage records, retention of.

(a) The owner, agent, master, or person in charge of any vessel involved in a marine casualty shall retain such voyage records as are maintained by the vessel, such as both rough and smooth deck and engine room logs, bell books, navigation charts, navigation work books, compass deviation cards, gyro records, stowage plans, records of draft, aids to mariners, night order books, radiograms sent and received, radio logs, crew and passenger lists, articles of shipment, official logs and other material which might be of assistance in investigating and determining the cause of the casualty. The owner, agent, master, other officer or person responsible for the custody thereof, shall make these records available upon request, to a duly authorized investigating officer, administrative law judge, officer or employee of the Coast Guard.

(b) The investigating officer may substitute photostatic copies of the voyage records referred to in paragraph

(a) of this section when they have served their purpose and return the original records to the owner or owners thereof.

#### § 4.05-20 Report of accident to aid to navigation.

Whenever a vessel collides with a buoy, or other aid to navigation under the jurisdiction of the Coast Guard, or is connected with any such collision, it shall be the duty of the person in charge of such vessel to report the accident to the nearest Officer in Charge, Marine Inspection. No report on Form CG-2692 is required unless one or more of the results listed in § 4.05-1 occur.

[CGD 74-119, 39 FR 33317, Sept. 17, 1974, as amended by CGD 88-070, 53 FR 34533, Sept. 7, 1988]

#### § 4.05-25 Reports when state of war exists.

During the period when a state of war exists between the United States and any foreign nation, communications in regard to casualties or accidents shall be handled with caution and the reports shall not be made by radio or by telegram.

#### § 4.05-30 Incidents involving hazardous materials.

When a casualty occurs involving hazardous materials, notification and a written report to the Department of Transportation may be required. See 49 CFR 171.15 and 171.16.

[CGD 76-170, 45 FR 77441, Nov. 24, 1980]

#### § 4.05-35 Incidents involving nuclear vessels.

The master of any nuclear vessel shall immediately inform the Commandant in the event of any accident or casualty to the nuclear vessel which may lead to an environmental hazard. The master shall also immediately inform the competent governmental authority of the country in whose waters the vessel may be or whose waters the vessel approaches in a damaged condition.

[CGD 84-099, 52 FR 47534, Dec. 14, 1987]

§4.06-20

**Subpart 4.06—Mandatory Chemical Testing Following Serious Marine Incidents Involving Vessels in Commercial Service**

SOURCE: CGD 86-067, 53 FR 47078, Nov. 21, 1988, unless otherwise noted.

**§4.06-1 Responsibilities of the marine employer.**

(a) At the time of occurrence of a marine casualty, a discharge of oil into the navigable waters of the United States, a discharge of a hazardous substance into the navigable waters of the United States, or a release of a hazardous substance into the environment of the United States, the marine employer shall make a timely, good faith determination as to whether the occurrence currently is, or is likely to become, a serious marine incident.

(b) When a marine employer determines that a casualty or incident is, or is likely to become, a serious marine incident, the marine employer shall take all practicable steps to have each individual engaged or employed on board the vessel who is directly involved in the incident chemically tested for evidence of drug and alcohol use.

(c) The determination of which individuals are directly involved in a serious marine incident is to be made by the marine employer. A law enforcement officer may determine that additional individuals are directly involved in the serious marine incident. In such cases, the marine employer shall take all practicable steps to have these individuals tested in accordance with paragraph (b) of this section.

(d) The requirements of this subpart shall not prevent vessel personnel who are required to be tested from performing duties in the aftermath of a serious marine incident when their performance is necessary for the preservation of life or property or the protection of the environment.

(e) The marine employer shall ensure that all individuals engaged or employed on board a vessel are fully indoctrinated in the requirements of this subpart, and that appropriate vessel personnel are trained as necessary in

the practical applications of these requirements.

(f) Each marine employer shall implement the testing requirements of this subpart in accordance with the implementation schedule provided in 46 CFR 16.205 and 16.207.

**§4.06-5 Responsibilities of individuals directly involved in serious marine incidents.**

(a) Any individual engaged or employed on board a vessel who is determined to be directly involved in a serious marine incident shall provide blood, breath or urine specimens for chemical tests required by §4.06-10 when directed to do so by the marine employer or a law enforcement officer.

(b) If the individual refuses to provide blood, breath or urine specimens, this refusal shall be noted on Form CG-2692B and in the vessel's official log book, if one is required.

(c) No individual may be forcibly compelled to provide specimens for chemical tests required by this part; however, refusal is considered a violation of regulation and could subject the individual to suspension and revocation proceedings under part 5 of this chapter and removal from any duties which directly affect the safety of the vessel's navigation or operations.

**§4.06-10 Required specimens.**

Each individual required to submit to chemical testing shall, as soon as practicable, provide the following specimens for chemical testing:

(a) Urine specimens, collected in accordance with §4.06-20 and part 16 of this chapter.

(b) Blood or breath specimens, or both, collected in accordance with §4.06-20.

**§4.06-20 Specimen collection requirements.**

(a) All inspected vessels certificated for unrestricted ocean routes, and all inspected vessels certificated for restricted overseas routes, are required to have on board at all times a breath testing device capable of determining the presence of alcohol in a person's system. The breath testing device shall be used in accordance with procedures specified by the manufacturer.

#### §4.06-30

(b) The marine employer shall ensure that urine specimen collection and shipping kits meeting the requirements of §16.330 of this part are readily available for use following serious marine incidents. The specimen collection and shipping kits need not be maintained aboard each vessel if they can otherwise be readily obtained within 24 hours from the time of the occurrence of the serious marine incident.

(c) The marine employer shall ensure that specimens required by §4.06-10 are collected as soon as practicable following the occurrence of a serious marine incident.

(d) When obtaining blood, breath, and urine specimens, the marine employer shall ensure that the collection process is supervised by either qualified collection personnel, the marine employer, a law enforcement officer, or the marine employer's representative.

(e) Chemical tests of an individual's breath for the presence of alcohol using a breath testing device may be conducted by any individual trained to conduct such tests. Blood specimens shall be taken only by qualified medical personnel.

#### §4.06-30 Specimen collection in incidents involving fatalities.

(a) When an individual engaged or employed on board a vessel dies as a result of a serious marine incident, blood and urine specimens must be obtained from the remains of the individual for chemical testing, if practicable to do so. The marine employer shall notify the appropriate local authority, such as the coroner or medical examiner, as soon as possible, of the fatality and of the requirements of this subpart. The marine employer shall provide the specimen collection and shipping kit and request that the local authority assist in obtaining the necessary specimens. When the custodian of the remains is a person other than the local authority, the marine employer shall request the custodian to cooperate in obtaining the specimens required under this part.

(b) If the local authority or custodian of the remains declines to cooperate in obtaining the necessary specimens, the marine employer shall provide an explanation of the circumstances on

Form CG-2692B (Report of Required Chemical Drug and Alcohol Testing Following a Serious Marine Incident).

#### §4.06-40 Specimen handling and shipping.

(a) The marine employer shall ensure that blood specimens collected in accordance with §§4.06-20 and 4.06-30 are promptly shipped to a testing laboratory qualified to conduct tests on such specimens. A proper chain of custody must be maintained for each specimen from the time of collection through the authorized disposition of the specimen. Blood specimens must be shipped to the laboratory in a cooled condition by any means adequate to ensure delivery within twenty-four (24) hours of receipt by the carrier.

(b) The marine employer shall ensure that the urine specimen collection procedures of §16.310 of this part and the chain of custody requirements of §16.320 are complied with. The marine employer shall ensure that urine specimens required by §§4.06-20 and 4.06-30 are promptly shipped to a laboratory complying with the requirements of 49 CFR part 40. Urine specimens must be shipped by an expeditious means, but need not be shipped in a cooled condition for overnight delivery.

#### §4.06-50 Specimen analysis and follow-up procedures.

(a) Each laboratory will provide prompt analysis of specimens collected under this subpart, consistent with the need to develop all relevant information and to produce a complete analysis report.

(b) Reports shall be sent to the Medical Review Officer meeting the requirements of 49 CFR 40.33, as designated by the marine employer submitting the specimen for testing. Wherever a urinalysis report indicates the presence of a dangerous drug or drug metabolite, the Medical Review Officer shall review the report as required by 49 CFR 40.33 and submit his or her findings to the marine employer. Blood test reports indicating the presence of alcohol shall be similarly reviewed to determine if there is a legitimate medical explanation.

(c) Analysis results which indicate the presence of alcohol, dangerous

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drugs, or drug metabolites shall not be construed by themselves as constituting a finding that use of drugs or alcohol was the probable cause of a serious marine incident.

[CGD 86-067, 53 FR 47078, Nov. 21, 1988, as amended by CGD 90-053, 58 FR 31107, May 28, 1993]

### § 4.06-60 Submission of reports and test results.

(a) Whenever an individual engaged or employed on a vessel is identified as being directly involved in a serious marine incident, the marine employer shall complete Form CG-2692B (Report of Required Chemical Drug and Alcohol Testing Following a Serious Marine Incident).

(b) When the serious marine incident requires the submission of Form CG-2692 (Report of Marine Casualty, Injury or Death) to the Coast Guard in accordance with § 4.05-10, the report required by paragraph (a) of this section shall be appended to Form CG-2692.

(c) In incidents involving discharges of oil or hazardous substances as described in § 4.03-2 (b) and (c) of this part, when Form CG-2692 is not required to be submitted, the report required by paragraph (a) of this section shall be submitted to the Coast Guard Officer in Charge, Marine Inspection, having jurisdiction over the location where the discharge occurred or nearest the port of first arrival following the discharge.

(d) Upon receipt of the report of chemical test results, the marine employer shall submit a copy of the test results for each person listed on the CG-2692B to the Coast Guard Officer in Charge, Marine Inspection to whom the CG-2692B was submitted.

## Subpart 4.07—Investigations

### § 4.07-1 Commandant or District Commander to order investigation.

(a) The Commandant or District Commander upon receipt of information of a marine casualty or accident, will immediately cause such investigation as may be necessary in accordance with the regulations in this part.

(b) The investigations of marine casualties and accidents and the determinations made are for the purpose of

taking appropriate measures for promoting safety of life and property at sea, and are not intended to fix civil or criminal responsibility.

(c) The investigation will determine as closely as possible:

(1) The cause of the accident;

(2) Whether there is evidence that any failure of material (either physical or design) was involved or contributed to the casualty, so that proper recommendations for the prevention of the recurrence of similar casualties may be made;

(3) Whether there is evidence that any act of misconduct, inattention to duty, negligence or willful violation of the law on the part of any licensed or certificated man contributed to the casualty, so that appropriate proceedings against the license or certificate of such person may be recommended and taken under title 46, U.S. Code, section 239;

(4) Whether there is evidence that any Coast Guard personnel or any representative or employee of any other government agency or any other person caused or contributed to the cause of the casualty; or,

(5) Whether the accident shall be further investigated by a Marine Board of Investigation in accordance with regulations in subpart 4.09.

### § 4.07-5 Investigating officers, powers of.

(a) An investigating officer investigates each marine casualty or accident reported under §§ 4.05-1 and 4.05-10.

(b) Such investigating officer shall have the power to administer oaths, subpoena witnesses, require persons having knowledge of the subject matter of the investigation to answer questionnaires and require the production of relevant books, papers, documents and other records.

(c) Attendance of witnesses or the production of books, papers, documents or any other evidence shall be compelled by a similar process as in the United States District Court.

[CGFR 65-50, 30 FR 17099, Dec. 30, 1965, as amended by CGD-104R, 37 FR 14234, July 18, 1972]

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### §4.07-7 Opening statement.

The investigating officer or the Chairman of a Marine Board of Investigation shall open the investigation by announcing the statutory authority for the proceeding and he shall advise parties in interest concerning their rights to be represented by counsel, to examine and cross-examine witnesses, and to call witnesses in their own behalf.

### §4.07-10 Report of investigation.

(a) At the conclusion of the investigation the investigating officer shall submit to the Commandant via the Officer in Charge, Marine Inspection, and the District Commander, a full and complete report of the facts as determined by his investigation, together with his opinions and recommendations in the premises. The Officer in Charge, Marine Inspection, and the District Commander shall forward the investigating officer's report to the Commandant with an indorsement stating:

(1) Approval or otherwise of the findings of fact, conclusions and recommendations;

(2) Any action taken with respect to the recommendations;

(3) Whether or not any action has been or will be taken under part 5 of this subchapter to suspend or revoke licenses or certificates; and,

(4) Whether or not violations of laws or regulations relating to vessels have been reported on Form CG-2638, report of violation of navigation laws.

(b) At the conclusion of the investigation, the investigating officer shall submit the report described in paragraph (a) of this section, to the Commandant via the Merchant Marine Detail Officer or the Officer in Charge, Marine Inspection, and the Commander, Coast Guard District Activities Europe for a European port or Commander, Fourteenth Coast Guard for an Asian or Pacific port. The Merchant Marine Detail Officer or the Officer in Charge, Marine Inspection, and Commander, Coast Guard District Activities Europe or Commander, Fourteenth Coast Guard District shall forward the investigating officer's report to the Commandant with the endorsement de-

scribed in paragraphs (a) (1) through (4) of this section.

[CGD 74-119, 39 FR 33317, Sept. 17, 1974, as amended by CGD 75-196, 41 FR 18655, May 6, 1976]

### §4.07-15 Recommendations, action on.

Where the recommendations of an investigating officer are such that their accomplishment is within the authority of the District Commander or any of the personnel under his command, immediate steps shall be taken to put them into effect and his forwarding endorsement shall so indicate.

### §4.07-20 Transfer of jurisdiction.

When it appears to the District Commander that it is more advantageous to conduct an investigation in a district other than in the district where the casualty was first reported, that officer shall transfer the case to the other district together with any information or material relative to the casualty he may have.

### §4.07-25 Testimony of witnesses in other districts, depositions.

When witnesses are available in a district other than the district in which the investigation is being made, testimony or statements shall be taken from witnesses in the other districts by an investigating officer and promptly transmitted to the investigating officer conducting the investigation. Depositions may be taken in the manner prescribed by regulations in subpart 4.12.

### §4.07-30 Testimony of witnesses under oath.

(a) Witnesses to marine casualties or accidents appearing before an investigating officer may be placed under oath and their testimony may be reduced to writing.

(b) Written statements and reports submitted as evidence by witnesses shall be sworn to before an officer authorized to administer oaths and such statements and/or reports shall be signed.

### §4.07-35 Counsel for witnesses and parties in interest.

(a) All parties in interest shall be allowed to be represented by counsel, to

examine and cross-examine witnesses and to call witnesses in their own behalf.

(b) Witnesses who are not parties in interest may be assisted by counsel for the purpose of advising such witnesses concerning their rights; however, such counsel will not be permitted to examine or cross-examine other witnesses or otherwise participate in the investigation.

**§ 4.07-45 Foreign units of Coast Guard, investigation by.**

Investigations of marine casualties conducted by foreign units of the Coast Guard shall be in accordance with the regulations in this part and all actions taken in connection with the investigations of such marine casualties entered in the official log(s) of the vessel(s) concerned.

**§ 4.07-55 Information to be furnished Marine Board of Investigation.**

When a Marine Board of Investigation is convened in accordance with § 4.09-1, the investigating officer shall immediately furnish the board with all testimony, statements, reports, documents, papers, a list of witnesses including those whom he has examined, other material which he may have gathered, and a statement of any findings of fact which he may have determined. The preliminary investigation shall cease forthwith and the aforementioned material shall become a part of the Marine Board of Investigation's record.

**Subpart 4.09—Marine Board of Investigation**

**§ 4.09-1 Commandant to designate.**

If it appears that it would tend to promote safety of life and property at sea or would be in the public interest, the Commandant may designate a Marine Board of Investigation to conduct an investigation.

[CGD 76-170, 45 FR 77441, Nov. 24, 1980]

**§ 4.09-5 Powers of Marine Board of Investigation.**

Any Marine Board of Investigation so designated shall have the power to administer oaths, summon witnesses, re-

quire persons having knowledge of the subject matter of the investigation to answer questionnaires, and to require the production of relevant books, papers, documents or any other evidence. Attendance of witnesses or the production of books, papers, documents or any other evidence shall be compelled by a similar process as in the United States District Court. The chairman shall administer all necessary oaths to any witnesses summoned before said Board.

**§ 4.09-10 Witnesses, payment of.**

Any witness subpoenaed under § 4.09-5 shall be paid such fees for his travel and attendance as shall be certified by the chairman of a Marine Board of Investigation or an investigating officer, in accordance with § 4.11-10.

**§ 4.09-15 Time and place of investigation, notice of; rights of witnesses, etc.**

Reasonable notice of the time and place of the investigation shall be given to any person whose conduct is or may be under investigation and to any other party in interest. All parties in interest shall be allowed to be represented by counsel, to cross-examine witnesses, and to call witnesses in their own behalf.

**§ 4.09-17 Sessions to be public.**

(a) All sessions of a Marine Board of Investigation for the purpose of obtaining evidence shall normally be open to the public, subject to the provision that the conduct of any person present shall not be allowed to interfere with the proper and orderly functioning of the Board. Sessions will not be open to the public when evidence of a classified nature or affecting national security is to be received.

**§ 4.09-20 Record of proceedings.**

The testimony of witnesses shall be transcribed and a complete record of the proceedings of a Marine Board of Investigation shall be kept. At the conclusion of the investigation a written report shall be made containing findings of fact, opinions, and recommendations to the Commandant for his consideration.

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##### §4.09-25 U.S. Attorney to be notified.

The recorder of a Marine Board of Investigation shall notify the United States Attorney for the District in which the Marine Board of Investigation is being conducted of the nature of the casualty under investigation and time and place the investigation will be made.

##### §4.09-30 Action on report.

Upon approval of the report of a Marine Board of Investigation the Commandant will require to be placed into effect such recommendations as he may deem necessary for the better improvement and safety of life and property at sea.

##### §4.09-35 Preferment of charges.

(a) If in the course of an investigation by a Marine Board there appears probable cause for the preferment of charges against any licensed or certificated personnel, the Marine Board shall, either during or immediately following the investigation and before the witnesses have dispersed, apprise the District Commander of such evidence for possible action in accordance with part 5 of this subchapter, without waiting for the approval of the report by the Commandant. Such action or proceedings shall be independent and apart from any other action which may be later ordered by the Commandant or taken by other authorities.

#### Subpart 4.11—Witnesses and Witness Fees

##### §4.11-1 Employees of vessels controlled by Army or Navy as witnesses.

No officer, seaman, or other employee of any public vessel controlled by the Army or Navy (not including the Coast Guard) of the United States, shall be summoned or otherwise required to appear as a witness in connection with any investigation or other proceeding without the consent of the Government agency concerned.

##### §4.11-5 Coercion of witnesses.

Any attempt to coerce any witness or to induce him to testify falsely in connection with a shipping casualty, or to

induce any witness to leave the jurisdiction of the United States, is punishable by a fine of \$5,000.00 or imprisonment for one year, or both such fine and imprisonment.

##### §4.11-10 Witness fees and allowances.

Witness fees and allowances are paid in accordance with 46 CFR 5.17-1.

[CGD 79-080, 45 FR 2046, Jan. 10, 1980]

#### Subpart 4.12—Testimony by Interrogatories and Depositions

##### §4.12-1 Application, procedure, and admissibility.

(a) Witnesses shall be examined orally, except that for good cause shown, testimony may be taken by deposition upon application of any party in interest or upon the initiative of the investigating officer or Marine Board of Investigation.

(b) Applications to take depositions shall be in writing setting forth the reasons why such deposition should be taken, the name and address of the witness, the matters concerning which it is expected the witness will testify, and the time and place proposed for the taking of the deposition. Such application shall be made to an investigating officer or the Marine Board of Investigation prior to or during the course of the proceedings.

(c) The investigating officer or Marine Board of Investigation, shall, upon receipt of the application, if good cause is shown, make and serve upon the parties an order which will specify the name of the witness whose deposition is to be taken, the name and place of the taking of such deposition and shall contain a designation of the officer before whom the witness is to testify. Such deposition may be taken before any officer authorized to administer oaths by the laws of the United States.

(d) The party desiring the deposition may submit a list of interrogatories to be propounded to the absent witness; then the opposite party after he has been allowed a reasonable time for this purpose, may submit a list of cross-interrogatories. If either party objects to any question of the adversary party, the matter shall be presented to the investigating officer or Marine Board of

Investigation for a ruling. Upon agreement of the parties on a list of interrogatories and cross-interrogatories (if any) the investigating officer or Marine Board of Investigation may propound such additional questions as may be necessary to clarify the testimony given by the witness.

(e) The subpoena referred to in subpart 5.15 of this subchapter together with the list of interrogatories and cross-interrogatories (if any) shall be forwarded to the officer designated to take such deposition. This officer will cause the subpoena to be served personally on the witness. After service the subpoena shall be endorsed and returned to the investigating officer or Marine Board of Investigation.

(f) When the deposition has been duly executed it shall be returned to the investigating officer or Marine Board of Investigation. As soon as practicable after the receipt of the deposition the investigating officer or Marine Board of Investigation shall present it to the parties for their examination. The investigating officer or Marine Board of Investigation shall rule on the admissibility of the deposition or any part thereof and of any objection offered by either party thereto.

#### Subpart 4.13—Availability of Records

##### § 4.13-1 Public availability of records.

Coast Guard records are made available to the public in accordance with 49 CFR part 7.

[CGD 73-43R, 40 FR 13501, Mar. 27, 1975]

#### Subpart 4.19—Construction of Regulations and Rules of Evidence

##### § 4.19-1 Construction of regulations.

The regulations in this part shall be liberally construed to insure just, speedy, and inexpensive determination of the issues presented.

##### § 4.19-5 Adherence to rules of evidence.

As hearings under this part are administrative in character, strict adherence to the formal rules of evidence is not imperative. However, in the interest of orderly presentation of the facts

of a case, the rules of evidence should be observed as closely as possible.

#### Subpart 4.21—Computation of Time

##### § 4.21-1 Computation of time.

The time, within which any act, provided by the regulation in this subchapter, or an order of the Marine Board of Investigation is to be done, shall be computed by excluding the first day and including the last unless the last day is Sunday or a legal holiday, in which case the time shall extend to and include the next succeeding day that is not a Sunday or legal holiday: *Provided, however,* That where the time fixed by the regulations in this subchapter or an order of the Board is five days or less all intervening Sundays or legal holidays, other than Saturdays, shall be excluded.

#### Subpart 4.23—Evidence of Criminal Liability

##### § 4.23-1 Evidence of criminal liability.

If as a result of any investigation or other proceeding conducted hereunder, evidence of criminal liability on the part of any licensed officer or certificated person or any other person is found, such evidence shall be referred to the U.S. Attorney General.

#### Subpart 4.40—Coast Guard—National Transportation Safety Board Marine Casualty Investigations

SOURCE: CGD 76-149, 42 FR 61200, Dec. 1, 1977, unless otherwise noted.

##### § 4.40-1 Purpose.

This subpart prescribes the joint regulations of the National Transportation Safety Board and the Coast Guard for the investigation of marine casualties.

[CGD 82-034, 47 FR 45882, Oct. 14, 1982]

##### § 4.40-3 Relationship to Coast Guard marine investigation regulations and procedures.

(a) The Coast Guard's responsibility to investigate marine casualties is not

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eliminated nor diminished by the regulations in this subpart.

(b) In those instances where the National Transportation Safety Board conducts an investigation in which the Coast Guard also has responsibility under R.S. 4450 (46 U.S.C. 239), the proceedings are conducted independently but so as to avoid duplication as much as possible.

#### §4.40-5 Definitions.

As used in this subpart:

(a) *Act* means title III of Public Law 93-633, the Independent Safety Board Act of 1974, (49 U.S.C. 1901, *et seq.*).

(b) *Board* means the National Transportation Safety Board.

(c) *Chairman* means the Chairman of the National Transportation Safety Board.

(d) *Major marine casualty* means a casualty involving a vessel, other than a public vessel, that results in:

- (1) The loss of six or more lives;
- (2) The loss of a mechanically propelled vessel of 100 or more gross tons;
- (3) Property damage initially estimated at \$500,000 or more; or
- (4) Serious threat, as determined by the Commandant and concurred in by the Chairman, to life, property, or the environment by hazardous materials.

(e) *Public vessel* means a vessel owned by the United States, except a vessel to which the Act of October 25, 1919, c.82, (41 Stat. 305, 46 U.S.C. 363) applies.

(f) *Vessel of the United States* means a vessel:

- (1) Documented or required to be documented under the laws of the United States;
- (2) Owned in the United States; or
- (3) Owned by a citizen or resident of the United States and not registered under a foreign flag.

#### §4.40-10 Preliminary investigation by the Coast Guard.

(a) The Coast Guard conducts the preliminary investigation of marine casualties.

(b) The Commandant determines from the preliminary investigation whether:

- (1) The casualty is a major marine casualty; or

(2) The casualty involves a public and a non-public vessel and at least one fatality or \$75,000 in property damage; or

(3) The casualty involves a Coast Guard and a non-public vessel and at least one fatality or \$75,000 in property damage; or

(4) The casualty is a major marine casualty which involves significant safety issues relating to Coast Guard safety functions, e.g., search and rescue, aids to navigation, vessel traffic systems, commercial vessel safety, etc.

(c) The Commandant notifies the Board of a casualty described in paragraph (b) of this section.

[CGD 76-149, 42 FR 61200, Dec. 1, 1977, as amended by CGD 82-034, 47 FR 45882, Oct. 14, 1982]

#### §4.40-15 Marine casualty investigation by the Board.

(a) The Board may conduct an investigation under the Act of any major marine casualty or any casualty involving public and non-public vessels. Where the Board determines it will convene a hearing in connection with such an investigation, the Board's rules of practice for transportation accident hearings in 49 CFR part 845 shall apply.

(b) The Board shall conduct an investigation under the Act when:

(1) The casualty involves a Coast Guard and a non-public vessel and at least one fatality or \$75,000 in property damage; or

(2) The Commandant and the Board agree that the Board shall conduct the investigation, and the casualty involves a public and a non-public vessel and at least one fatality or \$75,000 in property damage; or

(3) The Commandant and the Board agree that the Board shall conduct the investigation, and the casualty is a major marine casualty which involves significant safety issues relating to Coast Guard safety functions.

[CGD 82-034, 47 FR 45882, Oct. 14, 1982]

#### §4.40-20 Cause or probable cause determinations from Board investigation.

After an investigation conducted by the Board under §4.40-15, the Board determines cause or probable cause and issues a report of that determination.

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**§ 4.40-25 Coast Guard marine casualty investigation for the Board.**

(a) If the Board does not conduct an investigation under § 4.40-15 (a), (b) (2) or (3), the Coast Guard, at the request of the Board, may conduct an investigation under the Act unless there is an allegation of Federal Government misfeasance or nonfeasance.

(b) The Board will request the Coast Guard to conduct an investigation under paragraph (a) of this section within 48 hours of receiving notice under § 4.40-10(c).

(c) The Coast Guard will advise the Board within 24 hours of receipt of a request under paragraph (b) of this section whether the Coast Guard will conduct an investigation under the Act.

[CGD 82-034, 47 FR 45882, Oct. 14, 1982]

**§ 4.40-30 Procedures for Coast Guard investigation.**

(a) The Coast Guard conducts an investigation under § 4.40-25 using the procedures in 46 CFR 4.01-1 through 4.23-1.

(b) The Board may designate a person or persons to participate in every phase of an investigation, including on scene investigation, that is conducted under the provisions of subpart 4.40-25 of this part.

(c) Consistent with Coast Guard responsibility to direct the course of the

investigation, the person or persons designated by the Board under paragraph (b) of this section may:

(1) Make recommendations about the scope of the investigations.

(2) Call and examine witnesses.

(3) Submit or request additional evidence.

(d) The Commandant provides a record of the proceedings to the Board of an investigation of a major marine casualty under paragraph (a) of this section.

(e) The Board, under the Act, makes its determination of the facts, conditions, circumstances, and the cause or probable cause of a major marine casualty using the record of the proceedings provided by the Commandant under paragraph (d) of this section, and any additional evidence the Board may acquire under its own authority.

(f) An investigation by the Coast Guard under this section is both an investigation under the Act and under R.S. 4450 (46 U.S.C. 239).

**§ 4.40-35 Records of the Coast Guard and the Board.**

(a) Records of the Coast Guard made under § 4.40-30 are available to the public under 49 CFR part 7.

(b) Records of the Board made under §§ 4.40-20 and 4.40-30 are available to the public under 49 CFR part 801.

BRIDGE	MILEPOST	HITS	TRANSITS	HIT/TRANSIT RATIO
SABULA	534.9 UMR	21	25K	1/1190
LACROSSE	699.4 UMR	14	19K	1/1357
CLINTON	518.1 UMR	14	30K	1/2142
LOUISIANA	282.1 UMR	18	39K	1/2166
FORT MADISON	383.9 UMR	15	35K	1/2333
CRESENT ROCK	481.4 UMR	16	38K	1/2375
GREENVILLE	531.3 UMR	10	25K	1/2500
C. NW RR (ILLINOIS)	151.20	12	35K	1/2916
VICKSBURG	435.8 LMR	11	35K	1/3181
BURLINGTON	403.1 UMR	11	35K	1/3181
BATON ROUGE	233.9 LMR	12	65K	1/5416
EADS	180.0 UMR	7	61K	1/8714
POPLAR	179.2 UMR	5	61K	1/12,200

ENCLOSURE(7)

TITLE 46. SHIPPING  
SUBTITLE II. VESSELS AND SEAMEN  
PART D. MARINE CASUALTIES  
CHAPTER 63. INVESTIGATING MARINE CASUALTIES

46 USC § 6101 (1992)

§ 6101. Marine casualties and reporting

(a) The Secretary shall prescribe regulations on the marine casualties to be reported and the manner of reporting. The regulations shall require reporting the following marine casualties:

- (1) death of an individual.
- (2) serious injury to an individual.
- (3) material loss of property.
- (4) material damage affecting the seaworthiness or efficiency of the vessel.
- (5) significant harm to the environment.

(b) A marine casualty shall be reported within 5 days as provided in this part and regulations prescribed under this part. Each report filed under this section shall include information as to whether the use of alcohol contributed to the casualty.

(c) [Repealed]

(d)(1) This part applies to a foreign vessel when involved in a marine casualty on the navigable waters of the United States.

(2) This part applies, to the extent consistent with generally recognized principles of international law, to a foreign vessel constructed or adapted to carry, or that carries, oil in bulk as cargo or cargo residue involved in a marine casualty described under subsection (a)(4) or (5) in waters subject to the jurisdiction of the United States, including the Exclusive Economic Zone.

(e) A marine casualty not resulting in the death of an individual shall be classified according to the gravity of the casualty, as prescribed by regulation, giving consideration to the extent of injuries to individuals, the extent of property damage, the dangers that the casualty creates, and the size, occupation, and means of propulsion of each vessel involved.

(e)(1) This chapter applies to a marine casualty involving a United States citizen on a foreign passenger vessel operating south of 75 degrees north latitude, west of 35 degrees

ENCLOSURE(8)

TITLE 46. SHIPPING  
SUBTITLE II. VESSELS AND SEAMEN  
PART D. MARINE CASUALTIES  
CHAPTER 63. INVESTIGATING MARINE CASUALTIES

46 USC § 6301 (1992)

§ 6301. Investigation of marine casualties

The Secretary shall prescribe regulations for the immediate investigation of marine casualties under this part to decide, as closely as possible

- (1) the cause of the casualty, including the cause of any death;
- (2) whether an act of misconduct, incompetence, negligence, unskillfulness, or willful violation of law committed by any individual licensed, certificated, or documented under part E of this subtitle has contributed to the cause of the casualty, or to a death involved in the casualty, so that appropriate remedial action under chapter 77 of this title may be taken;
- (3) whether an act of misconduct, incompetence, negligence, unskillfulness, or willful violation of law committed by any person, including an officer, employee, or member of the Coast Guard, contributed to the cause of the casualty, or to a death involved in the casualty;
- (4) whether there is evidence that an act subjecting the offender to a civil penalty under the laws of the United States has been committed, so that appropriate action may be undertaken to collect the penalty;
- (5) whether there is evidence that a criminal act under the laws of the United States has been committed, so that the matter may be referred to appropriate authorities for prosecution; and
- (6) whether there is need for new laws or regulations, or amendment or repeal of existing laws or regulations, to prevent the recurrence of the casualty.

HISTORY: (Aug. 26, 1983, P.L. 98-89, § 1, 97 Stat. 537.)

west longitude, and east of the International Date Line; or operating in the area south of 60 degrees south latitude that--

(A) embarks or disembarks passengers in the United States; or

(B) transports passengers traveling under any form of air and sea ticket package marketed in the United States.

(2) When there is a marine casualty described in paragraph (1) of this subsection and an investigation is conducted, the Secretary shall ensure that the investigation--

(A) is thorough and timely; and

(B) produces findings and recommendations to improve safety on passenger vessels.

(3) When there is a marine casualty described in paragraph (1) of this subsection, the Secretary may--

(A) seek a multinational investigation of the casualty under auspices of the International Maritime Organization; or

(B) conduct an investigation of the casualty under chapter 63 of this title

HISTORY: (Aug. 26, 1983, P.L. 98-89, § 1, 97 Stat. 536; Oct. 19, 1984, P.L. 98-498, Title II, Subtitle A, § 212(b)(1), 98 Stat. 2306; Oct. 30, 1984, P.L. 98-557, § 7(b)(1), 98 Stat. 2862.) (As amended Aug. 18, 1990, P.L. 101-380, Title IV, Subtitle A, § 4106(b), 104Stat. 513; Dec. 19, 1991, P.L. 102-241, § 33, 105 Stat. 2222.)

TITLE 33. NAVIGATION AND NAVIGABLE WATERS  
CHAPTER 25. PORTS AND WATERWAYS SAFETY PROGRAM

33 USC § 1227 (1992)

§ 1227. Investigatory powers

(a) Secretary.

The Secretary may investigate any incident, accident, or act involving the loss or destruction of, or damage to, any structure subject to this Act, or which affects or may affect the safety or environmental quality of the ports, harbors, or navigable waters of the United States.

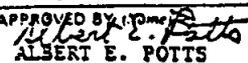
(b) Powers.

In an investigation under this section, the Secretary may issue subpoenas to require the attendance of witnesses and the production of documents or other evidence relating to such incident, accident, or act. If any person refuses to obey a subpoena, the Secretary may request the Attorney General to invoke the aid of the appropriate district court of the United States to compel compliance with the subpoena. Any district court of the United States may, in the case of refusal to obey a subpoena, issue an order requiring compliance with the subpoena, and failure to obey the order may be punished by the court as contempt. Witnesses may be paid fees for travel and attendance at rates not exceeding those allowed in a district court of the United States.

HISTORY: (July 10, 1972, P.L. 92-340, [Title I], § 8, [§ 107], 86 Stat. 427; Oct. 17, 1978, P.L. 95-474, § 2, 92 Stat. 1476)

ENCLOSURE(9)



SECTION III. PERSONNEL ACCIDENT INFORMATION			
27. Person Involved <input checked="" type="checkbox"/> MALE or <input type="checkbox"/> FEMALE <input type="checkbox"/> DEAD <input type="checkbox"/> INJURED <input type="checkbox"/> MISSING		27a. Name (Last, First, Middle Initial) <b>SMITH, Leroy H.</b> 27b. Address (City, State, Zip Code) <b>225 8th St., Raleigh, NC 29201</b>	
28. Birth Date <b>14 April 1938</b>		29. Telephone No. <b>919 424-1540</b>	30. Job Position <b>Deckhand</b>
31. (Check here if off duty) <input type="checkbox"/>			
32. Employer (If different from Block 18., fill in Name, Address, Telephone No.) <b>Same as 18</b>			
33. Person's Time		YEAR(S) MONTH(S)	34. Industry of Employer (Mining, Fishing, Shipping, Crew Supply, Drilling, etc.) <b>Towing</b>
A. IN THIS INDUSTRY - <u>5</u>		<u>3</u>	35. Was the Injured Person Incapacitated 72 Hours or More? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO 36. Date of Death <b>N/A</b>
B. WITH THIS COMPANY - <u>2</u>		<u>8</u>	
C. IN PRESENT JOB OR POSITION - <u>2</u>		<u>8</u>	
D. ON PRESENT VESSEL FACILITY - <u>1</u>		<u>10</u>	
E. HOURS ON DUTY WHEN ACCIDENT OCCURRED - _____		_____	
37. Activity of Person at Time of Accident <b>Handling Lines</b>			
38. Specific Location of Accident on Vessel/Facility <b>Main Deck Aft</b>			
39. Type of Accident (Fall, Contact between, etc.) <b>Caught in line</b>		40. Resulting Injury (Cut, Bruise, Fracture, Burn, etc.) <b>Crushed</b>	
41. Part of Body Injured <b>Fingers (Left Hand)</b>		42. Equipment Involved in Accident <b>Tow Line</b>	
43. Specific Object, Part of the Equipment in Block 42., or Substance (Chemical, Solvent, etc.) that directly produced the injury. <b>Tow Line</b>			
SECTION IV. DESCRIPTION OF CASUALTY			
44. Describe how accident occurred, damage, information on alcohol/drug involvement and recommendations for corrective safety measures. (See instructions and attach additional sheets if necessary). <p>At 0932 the hydraulic steering gear of the M/V MUD D. PUDDLE ruptured a seal in the starboard ram causing a total loss of hydraulic pressure. The seal was installed 10 years ago. The operator ordered the towline shortened as the barge drifted up on the tug. While Leroy Smith was doing this, the wind caught the barge and suddenly tightened the towline, crushing the fingers of Smith's left hand between the hauler and the towing bit. The barge pulled the tug to the eastern side of the bay in spite of the use of the tug's engine and the barge ran aground on Taylor's Island at approximately 1000, 23 April 1988.</p>			
45. Witness (Name, Address, Telephone No.) <b>JOHN W. TOMS, 522 EOUGH St., Washington, DC 20590 (202) 842-1222</b>			
46. Witness (Name, Address, Telephone No.) <b>Sam S. Green, 9424 Elm St., Norfolk, VA 21210 (804) 981-1010</b>			
SECTION V. PERSON MAKING THIS REPORT			47c. Title <b>Operator</b>
47. Name (PRINT) (Last, First, Middle Initial) <b>HENRY, John (N)</b>		47b. Address (City, State, Zip Code) <b>2120 Front St.                      Baltimore, MD 21111</b>	47d. Telephone No. <b>(301) 242-8290</b>
47a. Signature 		47e. Date <b>23 April 1988</b>	
FOR COAST GUARD USE ONLY			REPORTING OFFICE: <b>Baltimore, MD</b>
APPARENT CAUSE was a failure of a seal in the hydraulic steering ram due to age and normal wear and tear which resulted in the grounding of the barge. Smith's injury was due to his own carelessness. (See attached sheet for technical data on steering).			
CASUALTY COD <b>(A) B C</b>	INVESTIGATOR (Name) <b>JOHN Q. JONES</b>	DATE <b>25 APR 88</b>	APPROVED BY (Name)  <b>ALBERT E. POTTS</b>
		DATE <b>26 APR 88</b>	

DEPARTMENT OF TRANSPORTATION U. S. COAST GUARD CG-2692A (Rev. 6-82)		<b>BARGE ADDENDUM</b>				REPORTS CONTROL SYMBOL G-MMI-2115-0003
NOTE: This form may be used to report data for barges causing or sustaining damage in the accident described on form CG-2692. This form may only be used in addition to form CG-2692, never alone.						
NAME OF VESSEL (Use Same Name as Block 1., of CG-2692).					DATE OF ACCIDENT 23 April 1988	
<b>FOR BARGE CAUSING OR SUSTAINING DAMAGES</b>						26a. USCG Certificate of Inspection Issued At:
26. Name EPIC 32	26a. Official Number D54321	26b. Type T/B	26c. Length 297	26d. Gross Tons 1991	6/3/83 Port Arthur, TX	
26f. Year Built 1975	26e. <input type="checkbox"/> SINGLE SKIN <input checked="" type="checkbox"/> DOUBLE SKIN	26h. Draft 9'0"	26g. AFT 9'0"	26i. Operating Company EPIC, Incorporated		
26j. Damage Amount DAMAGE TO BARGE \$ 20,000 CARGO \$ None		26k. Describe Damage to Barge Holed fwd strb Rake				

<b>FOR BARGE CAUSING OR SUSTAINING DAMAGES</b>						26a. USCG Certificate of Inspection Issued At:
26. Name EPIC 33	26a. Official Number D553436	26b. Type T/B	26c. Length 147	26d. Gross Tons 834	2/22/88 Greenville, MS	
26f. Year Built 1975	26e. <input type="checkbox"/> SINGLE SKIN <input checked="" type="checkbox"/> DOUBLE SKIN	26h. Draft 9'0"	26g. AFT 9'0"	26i. Operating Company EPIC, Incorporated		
26j. Damage Amount DAMAGE TO BARGE \$ 30,000 CARGO \$ None		26k. Describe Damage to Barge Holed, fwd port wing tank Internals Upset				

<b>FOR BARGE CAUSING OR SUSTAINING DAMAGES</b>						26a. USCG Certificate of Inspection Issued At:
26. Name	26a. Official Number	26b. Type	26c. Length	26d. Gross Tons		
26f. Year Built	26e. <input type="checkbox"/> SINGLE SKIN <input type="checkbox"/> DOUBLE SKIN	26h. Draft PWD	26g. AFT	26i. Operating Company		
26j. Damage Amount DAMAGE TO BARGE \$ CARGO \$		26k. Describe Damage to Barge				

<b>FOR BARGE CAUSING OR SUSTAINING DAMAGES</b>						26a. USCG Certificate of Inspection Issued At:
26. Name	26a. Official Number	26b. Type	26c. Length	26d. Gross Tons		
26f. Year Built	26e. <input type="checkbox"/> SINGLE SKIN <input type="checkbox"/> DOUBLE SKIN	26h. Draft PWD	26g. AFT	26i. Operating Company		
26j. Damage Amount DAMAGE TO BARGE \$ CARGO \$		26k. Describe Damage to Barge				

<b>FOR BARGE CAUSING OR SUSTAINING DAMAGES</b>						26a. USCG Certificate of Inspection Issued At:
26. Name	26a. Official Number	26b. Type	26c. Length	26d. Gross Tons		
26f. Year Built	26e. <input type="checkbox"/> SINGLE SKIN <input type="checkbox"/> DOUBLE SKIN	26h. Draft PWD	26g. AFT	26i. Operating Company		
26j. Damage Amount DAMAGE TO BARGE \$ CARGO \$		26k. Describe Damage to Barge				
SIGNATURE (of Person making this Report)						

**§160.203 Definitions.**

As used in this subpart:

*Agent* means any person, partnership, firm, company or corporation engaged by the owner or charterer of a vessel to act in their behalf in matters concerning the vessel.

*Carried in bulk* means a commodity that is loaded or carried on board a vessel without containers or labels and received and handled without mark or count.

*Certain dangerous Cargo* includes any of the following:

(a) Class A explosives, as defined in 46 CFR 146.20-7 and 49 CFR 173.53.

(b) Oxidizing materials or blasting agents for which a permit is required under 49 CFR 176.415.

(c) Highway route controlled quantity radioactive material, as defined in 49 CFR 173.403(1), or Fissile Class III shipments of fissile radioactive material, as defined in 49 CFR 173.455(a)(3).

(d) Each cargo under Table 1 of 46 CFR Part 153 when carried in bulk.

(e) Any of the following when carried in bulk:

Acetaldehyde  
Ammonia, anhydrous  
Butadiene  
Butane  
Butene  
Butylene Oxide  
Chlorine  
Ethane  
Ethylene  
Ethylene Oxide  
Methane  
Methyl Acetylene, Propadiene Mixture, Stabilized

Methyl Bromide  
Methyl Chloride  
Phosphorous, elemental  
Propane  
Propylene  
Sulfur Dioxide  
Vinyl Chloride

*Great Lakes* means Lakes Superior, Michigan, Huron, Erie, and Ontario, their connecting and tributary waters, the Saint Lawrence River as far as Saint Regis, and adjacent port areas.

*Hazardous condition* means any condition that could adversely affect the safety of any vessel, bridge, structure, or shore area or the environmental quality of any port, harbor, or navigable water of the United States. This condition could include but is not limited to, fire, explosion, grounding, leaking, damage, illness of a person on board, or a manning shortage.

*Port or place of departure* means any port or place in which a vessel is anchored or moored.

*Port or place of destination* means any port or place to which a vessel is bound to anchor or moor.

*Public vessel* means a vessel owned by and being used in the public service of the United States. This definition does not include a vessel owned by the United States and engaged in a trade or commercial service or a vessel under contract or charter to the United States.

[CGD 79-026, 48 FR 35404, Aug. 4, 1983, as amended by CGD 84-039, 50 FR 8614, Mar. 4, 1985; 50 FR 9426, Mar. 8, 1985]

ENCLOSURE(11)

**§160.215 Notice of hazardous conditions.**

Whenever there is a hazardous condition on board a vessel, the owner, master, agent or person in charge shall im-

mediately notify the Captain of the Port of the port or place of destination and the Captain of the Port of the port or place in which the vessel is located of the hazardous condition.

TITLE 46. SHIPPING  
SUBTITLE II. VESSELS AND SEAMEN  
PART D. MARINE CASUALTIES  
CHAPTER 61. REPORTING MARINE CASUALTIES

46 USCS § 6103 (1992)

§ 6103. Penalty

(a) An owner, charterer, managing operator, agent, master, or individual in charge of a vessel failing to report a casualty as required under section 6101 of this title or a regulation prescribed under section 6101 is liable to the United States Government for a civil penalty of \$ 1,000.

(b) A person failing to comply with section 6104 of this title or a regulation prescribed under that section is liable to the Government for a civil penalty of not more than \$ 5,000.

HISTORY: (Aug. 26, 1983, P.L. 98-89, § 1, 97 Stat. 536; Oct. 19, 1984, P.L. 98-498, Title II, Subtitle A, § 212(b)(2), 98 Stat. 2306.) (As amended Sept. 9, 1988, P.L. 100-424, § 4(b), 102 Stat. 1590.)

ENCLOSURE(3)

TITLE 33. NAVIGATION AND NAVIGABLE WATERS  
CHAPTER 25. PORTS AND WATERWAYS SAFETY PROGRAM

33 USC § 1232 (1992)

§ 1232. Enforcement provisions

(a) Civil penalty.

(1) Any person who is found by the Secretary, after notice and an opportunity for a hearing, to have violated this Act or a regulation issued hereunder shall be liable to the United States for a civil penalty, not to exceed \$ 25,000 for each violation. Each day of a continuing violation shall constitute a separate violation. The amount of such civil penalty shall be assessed by the Secretary, or his designee, by written notice. In determining the amount of such penalty, the Secretary shall take into account the nature, circumstances, extent and gravity of the prohibited acts committed and, with respect to the violator, the degree of culpability, any history of prior offenses, ability to pay, and such other matters as justice may require.

(2) The Secretary may compromise, modify, or remit, with or without conditions, any civil penalty which is subject to imposition or which has been imposed under this section.

(3) If any person fails to pay an assessment of a civil penalty after it has become final, the Secretary may refer the matter to the Attorney General of the United States, for collection in any appropriate district court of the United States.

(b) Criminal penalty.

(1) Any person who willfully and knowingly violates this Chapter or any regulation issued hereunder commits a class D felony and shall be fined not more than \$50,000 for each violation or imprisoned for not more than 5 years or both.

(2) Any person who, in the willfull and knowing violations of this Chapter or of any regulation issued hereunder, uses a dangerous weapon, or engages in conduct that causes bodily injury or fear of imminent bodily injury to any officer authorized to enforce the provisions of this Chapter or the regulations issued hereunder, commits a class C felony and shall, in lieu of the penalties prescribed in para (1), be fined not more than \$10,000, or imprisonment for not more than ten years, or both.

(c) In rem liability.

Any vessel subject to the provisions of this Chapter, which is used in violation of this Chapter, or any regulations issued hereunder, shall be liable in rem for any civil penalty assessed pursuant to subsection (a) and may be proceeded against in the

ENCLOSURE(14)

United States district court for any district in which such vessel may be found.

(d) Injunction.

The United States district courts shall have jurisdiction to restrain violations of this Chapter or of regulations issued hereunder, for cause shown.

(e) Denial of entry.

Except as provided in section 1228 of this title, the Secretary may, subject to recognized principles of international law, deny entry into the navigable waters of the United States or to any port or place under the jurisdiction of the United States to any vessel not in compliance with the provisions of this Chapter or the regulations issued hereunder.

(f) Withholding of clearance.

The Secretary of the Treasury shall withhold or revoke, at the request of the Secretary, the clearance, required by section 91 of Title 46, of any vessel, the owner or operator of which is subject to any of the penalties in this section. Clearance may be granted in such cases upon the filing of a bond or other surety satisfactory to the Secretary.

HISTORY: (July 10, 1972, P.L. 92-340, § 13, as added Oct. 17, 1978, P.L. 95-474, § 2, 92 Stat. 1478.)  
(As amended Aug. 18, 1990, P.L. 101-380, Title IV, Subtitle C, § 4302(j), 104 Stat. 539.)

TITLE 33. NAVIGATION AND NAVIGABLE WATERS  
CHAPTER 9. PROTECTION OF NAVIGABLE WATERS AND OF HARBOR AND  
RIVER IMPROVEMENTS GENERALLY

33 USC § 401 (1992)

§ 401. Construction of bridges, causeways, dams, or dikes generally; exemptions

It shall not be lawful to construct or commence the construction of any bridge, causeway, dam, or dike over or in any port, roadstead, haven, harbor, canal, navigable river, or other navigable water of the United States until the consent of Congress to the building of such structures shall have been obtained and until the plans for (1) the bridge or causeway shall have been submitted to and approved by the Secretary of Transportation, or (2) the dam or dike shall have been submitted to and approved by the Chief of Engineers and Secretary of the Army. However, such structures may be built under authority of the legislature of a State across rivers and other waterways the navigable portions of which lie wholly within the limits of a single State, provided the location and plans thereof are submitted to and approved by the Secretary of Transportation or by the Chief of Engineers and Secretary of the Army before construction is commenced. When plans for any bridge or other structure have been approved by the Secretary of Transportation or by the Chief of Engineers and Secretary of the Army, it shall not be lawful to deviate from such plans either before or after completion of the structure unless modification of said plans has previously been submitted to and received the approval of the Secretary of Transportation or the Chief of Engineers and the Secretary of the Army. The approval required by this section of the location and plans or any modification of plans of any bridge or causeway does not apply to any bridge or causeway over waters that are not subject to the ebb and flow of the tide and that are not used and are not susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce.

HISTORY: (Mar. 3, 1899, ch 425, § 9, 30 Stat. 1151.)

(As amended Oct. 15, 1982, P.L. 97-322, Title I, § 401(b), 96 Stat. 1582; Jan. 12, 1983, P.L. 97-449, § 2(f), 96 Stat. 2440.)

ENCLOSURE (15)

TITLE 33. NAVIGATION AND NAVIGABLE WATERS  
CHAPTER 11. BRIDGES OVER NAVIGABLE WATERS  
GENERAL PROVISIONS

33 USC § 491 (1993)

§ 491. Approval of and deviation from plans

When, after March 23, 1906, authority is granted by Congress to any persons to construct and maintain a bridge across or over any of the navigable waters of the United States, such bridge shall not be built or commenced until the plans and specifications for its construction, together with such drawings of the proposed construction and such map of the proposed location as may be required for a full understanding of the subject, have been submitted to the Secretary of Transportation for the Secretary's approval, nor until the Secretary shall have approved such plans and specifications and the location of such bridge and accessory works; and when the plans for any bridge to be constructed under the provisions of this Act have been approved by the Secretary it shall not be lawful to deviate from such plans, either before or after completion of the structure, unless the modification of such plans has previously been submitted to and received the approval of the Secretary. This section shall not apply to any bridge over waters which are not subject to the ebb and flow of the tide and which are not used and are not susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce.

HISTORY: (Mar. 23, 1906, ch 1130, § 1, 34 Stat. 84.) (As amended Oct. 15, 1982, P.L. 97-322, Title I, § 107(c), 96 Stat. 1582; Jan. 12, 1983, P.L. 97-449, § 2(d)(1) in part, 96 Stat. 2440; Oct. 30, 1984, P.L. 98-557, § 17(g)(1), 98 Stat. 2869.)

33 USC § 492 (1992)

§ 492. Bridge as post route; limitation as to charges against Government; telegraph and telephone lines

Any bridge built in accordance with the provisions of section 491 to 498 of this title, shall be a lawful structure and shall be recognized and known as a post route, upon which no higher charge shall be made for the transmission over the same of the mails, the troops, and the munitions of war of the United States than the rate per mile paid for the transportation over any railroad, street railway, or public highway leading to said bridge; and the United States shall have the right to construct, maintain, and repair, without any charge therefor, telegraph and telephone lines across and upon said bridge and its approaches; and equal privileges in the use of said bridge and its approaches shall be granted to all telegraph and telephone companies.

HISTORY: (Mar. 23, 1906, ch 1130, § 2, 34 Stat. 85.)

33 USC § 493 (1992)

§ 493. Use of railroad bridges by other railroad companies

All railroad companies desiring the use of any railroad bridge built in accordance with the provisions of sections 491 to 498 of this title, shall be entitled to equal rights and privileges relative to the passage of railway trains or cars over the same and over the approaches thereto upon payment of a reasonable compensation for such use; and in case of any disagreement between the parties in regard to the terms of such use or the sums to be paid all matters at issue shall be determined by the Secretary of Transportation upon hearing the allegations and proofs submitted to him.

HISTORY: (Mar. 23, 1906, ch 1130, § 3, 34 Stat. 85.) (As amended Jan. 12, 1983, P.L. 97-449, § 2(d)(1) in part, 96 Stat. 2440.)

33 USC § 494 (1993)

§ 494. Obstruction of navigation; alterations and removals; lights and signals; draws; tolls

No bridge erected or maintained under the provisions of sections 491 to 498 of this title, shall at anytime unreasonably obstruct the free navigation of the waters over which it is constructed, and if any bridge erected in accordance with the provisions of said sections shall, in the opinion of the Secretary of Transportation, at any time unreasonably obstruct such navigation, either on account of insufficient height, width of span, or otherwise, or if there be difficulty in passing the draw opening or the drawspan of such bridge by rafts, steamboats, or other water craft, it shall be the duty of the Secretary of Transportation after giving the parties interested reasonable opportunity to be heard, to notify the persons owning or controlling such bridge to so alter the same as to render navigation through or under it reasonably free, easy, and unobstructed, stating in such notice the changes required to be made, and prescribing in each case a reasonable time in which to make such changes, and if at the end of the time so specified the changes so required have not been made, the persons owning or controlling such bridge shall be deemed guilty of a violation of said sections; and all such alterations shall be made and all such obstructions shall be removed at the expense of the persons owning or operating said bridge. The persons owning or operating any such bridge shall maintain, at their own expense, such lights and other signals thereon as the Commandant of the Coast Guard shall prescribe. If the bridge shall be constructed with a draw, then the draw shall be opened promptly by the persons owning or

operating such bridge upon reasonable signal for the passage of boats and other water craft.

HISTORY: (Mar. 23, 1906, ch 1130, § 4, 34 Stat. 85.) (As amended Jan. 12, 1983, P.L. 97-449, § 2(d)(1) in part, 96 Stat. 2440; Apr. 2, 1987, P.L. 100-17, Title I, § 135(a), 101 Stat. 173.)

33 USC § 495 (1992)

§ 495. Violations of orders respecting bridges and accessory works

(a) Any persons who shall willfully fail or refuse to comply with the lawful order of the Secretary of Transportation or the Chief of Engineers, made in accordance with the provisions of section 491 to 498 of this title, shall be deemed guilty of a misdemeanor and on conviction thereof shall be punished in any court of competent jurisdiction by a fine not exceeding \$ 5,000, and every month such persons shall remain in default shall be deemed a new offense and subject such persons to additional penalties therefor; and in addition to the penalties above described the Secretary of Transportation and the Chief of Engineers may, upon refusal of the persons owning or controlling any such bridge and accessory works to comply with any lawful order issued by the Secretary of Transportation or Chief of Engineers in regard thereto, cause the removal of such bridge and accessory works at the expense of the persons owning or controlling such bridge, and suit for such expense may be brought in the name of the United States against such persons, and recovery had for such expense in any court of competent jurisdiction; and the removal of any structures erected or maintained in violation of the provisions of this Act or the order or direction of the Secretary of Transportation or Chief of Engineers made in pursuance thereof may be enforced by injunction, mandamus, or other summary process, upon application to the district court in the district in which such structure may, in whole or in part, exist, and proper proceedings to this end may be instituted under the direction of the Attorney General of the United States at the request of the Secretary of Transportation; and in case of any litigation arising from any obstruction or alleged obstruction to navigation created by the construction of any bridge under this Act, the cause or question arising may be tried before the circuit [district] court of the United States in any district which any portion of said obstruction or bridge touches.

(b) Whoever violates any provision of sections 491 to 498 of this title, or any order issued under sections 491 to 498, shall be liable to a civil penalty of not more than \$ 1,000. Each day a violation continues shall be deemed a separate offense. No

penalty may be assessed under this subsection until the person charged is given notice and an opportunity for a hearing on the charge. The Secretary of Transportation may assess and collect any civil penalty incurred under this subsection and, in his discretion, may remit, mitigate, or compromise any penalty until the matter is referred to the Attorney General. If a person against whom a civil penalty is assessed under this subsection fails to pay that penalty, an action may be commenced in the district court of the United States for any district in which the violation occurs for such penalty.

HISTORY: (Mar. 23, 1906, ch 1130, § 5, 34 Stat. 85.) (As amended Oct. 15, 1982, P.L. 97-322, Title I, § 108(c), 96 Stat. 1584; Jan. 12, 1983, P.L. 97-449, § 2(d)(1) in part, 96 Stat. 2440.)

TITLE 33. NAVIGATION AND NAVIGABLE WATERS  
CHAPTER 11. BRIDGES OVER NAVIGABLE WATERS  
GENERAL PROVISIONS

33 USC § 502 (1993)

§ 502. Alteration, removal, or repair of bridge or accessory obstructions to navigation.

(a) Whenever the Secretary of Transportation shall have good reason to believe that any railroad or other bridge now constructed, or which may hereafter be constructed, over any of the navigable waterways of the United States is an unreasonable obstruction to the free navigation of such waters on account of insufficient height, width of span, or otherwise, or where there is difficulty in passing the draw opening or the draw span of such bridge by rafts, steamboats, or other water craft, it shall be the duty of the said Secretary, first giving the parties reasonable opportunity to be heard, to give notice to the persons or corporations owning or controlling such bridge so to alter the same as to render navigation through or under it reasonably free, easy, and unobstructed; and in giving such notice he shall specify the changes that are required to be made, and shall prescribe in each case a reasonable time in which to make them. If at the end of such time the alteration has not been made, the Secretary of Transportation shall forthwith notify the United States attorney for the district in which such bridge is situated, to the end that the criminal proceedings hereinafter mentioned may be taken. If the persons, corporation, or association owning or controlling any railroad or other bridge shall, after receiving notice to that effect, as herein before required, from the Secretary of Transportation, and within the time prescribed by him willfully fail or refuse to remove the same or to comply with the lawful order of the Secretary of Transportation in the premises, such persons, corporation, or association shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punished by a fine not exceeding \$ 5,000, and every month such persons, corporation, or association shall remain in default in respect to the removal or alteration of such bridge shall be deemed a new offense, and subject the persons, corporation, or association so offending to the penalties above prescribed.

(b) No owner or operator of any bridge, drawbridge, or causeway shall endanger, unreasonably obstruct, or make hazardous the free navigation of any navigable water of the United States by reason of the failure to keep the bridge, drawbridge, or causeway and any accessory works in proper repair.

(c) Whoever violates any provision of this section, or any order issued under this section, shall be liable to a civil penalty of not more than \$ 1,000. Each day a violation continues shall be deemed a separate offense. No penalty may be assessed under this

subsection until the person charged is given notice and an opportunity for a hearing on the charge. The Secretary of Transportation may assess and collect any civil penalty incurred under this subsection and, in his discretion, may remit, mitigate, or compromise any penalty until the matter is referred to the Attorney General. If a person against whom a civil penalty is assessed under this subsection fails to pay that penalty, an action may be commenced in the district court of the United States for any district in which the violation occurs for such penalty.

HISTORY: (Mar. 3, 1899, c. 425, § 18, 30 Stat. 1153; June 25, 1948, ch 646, § 39, 62 Stat. 992.) (As amended Oct. 15, 1982, P.L. 97-322, Title I, § 108(b), 96 Stat. 1583.)

TITLE 33. NAVIGATION AND NAVIGABLE WATERS  
CHAPTER 11. BRIDGES OVER NAVIGABLE WATERS  
GENERAL BRIDGE AUTHORITY

33 USC § 525 (1993)

§ 525. Construction and operation of bridges

(a) Consent of Congress. The consent of Congress is hereby granted for the construction, maintenance, and operation of bridges and approaches thereto over the navigable waters of the United States, in accordance with the provisions of this subchapter.

(b) Approval of plans. The location and plans for such bridges shall be approved by the Secretary of Transportation before construction is commenced, and, in approving the location and plans of any bridge, the Secretary may impose any specific conditions relating to the maintenance and operation of the structure which the Secretary may deem necessary in the interest of public navigation, and the conditions so imposed shall have the force of law. This subsection shall not apply to any bridge over waters which are not subject to the ebb and flow of the tide and which are not used and are not susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce.

(c) Private highway toll bridges. Notwithstanding the provisions of subsections (a) and (b), it shall be unlawful to construct or commence the construction of any privately owned highway toll bridge until the location and plans thereof shall also have been submitted to and approved by the highway department or departments of the State or States in which the bridge and its approaches are situated; and where such bridge shall be between two or more States and the highway departments thereof shall be unable to agree upon the location and plans therefor, or if they, or either of them, shall fail or refuse to act upon the location and plans submitted, such location and plans then shall be submitted to the Secretary of Transportation and, if approved by the Secretary of Transportation, approval by the highway departments shall not be required.

HISTORY: (Aug. 2, 1946, ch 753, Title V, § 502, 60 Stat. 847.)  
(As amended Oct. 15, 1982, P.L. 97-322, Title I, § 107(a), 96 Stat. 1582; Jan. 12, 1983, P.L. 97-449, § 2(d)(1), (3), 96 Stat. 2440; Oct. 30, 1984, P.L. 98-557, § 17(g)(2), 98 Stat. 2869.)

TITLE 33. NAVIGATION AND NAVIGABLE WATERS  
CHAPTER 11. BRIDGES OVER NAVIGABLE WATERS  
GENERAL BRIDGE AUTHORITY

33 USC § 530 (1992)

§ 530. Bridges included and excluded

The provisions of this subchapter shall apply only to bridges over navigable waters of the United States, the construction of which is hereafter approved [after Aug. 2, 1946] under the provisions of this subchapter; and the provisions of the first provisions of section 401 Title 33 of this title and the provisions of sections 491 to 498 of this title shall not apply to such bridges.

HISTORY: (Aug. 2, 1946, ch 753, Title V, § 507, 60 Stat. 849.)

## PART 118—BRIDGE LIGHTING AND OTHER SIGNALS

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AUTHORITY: 33 U.S.C. 494; 14 U.S.C. 85, 633; 49 CFR 1.46 (b) and (c).

SOURCE: 40 FR 24898, June 11, 1975, unless otherwise noted.

### § 118.1 General requirements.

All persons owning or operating bridges over the navigable waters of the United States or any international bridge constructed after March 23, 1906, shall maintain at their own expense the lights and other signals required by this part.

[CGD 84-022, 51 FR 16312, May 2, 1986]

### § 118.3 Incorporation by reference.

(a) In this part, portions or the entire text of certain standards and specifications are incorporated by reference as the governing requirements for materials, equipment, tests, or procedures to be followed. These standards and specification requirements specifically referred to in this part are the govern-

ing requirements for the subject matters covered, unless specifically limited, modified, or replaced by the regulations.

(b) These materials are incorporated by reference into this part under 5 U.S.C. 552(a) with the approval of the Director of the Federal Register. The Office of the Federal Register publishes a table, "Material Approved for Incorporation by Reference," which appears in the Finding Aids section of this volume. In that table are found citations to the particular sections of this part where the material is incorporated. To enforce any edition other than the one listed in paragraph (c) of this section, notice of the change must be published in the FEDERAL REGISTER and the material made available. All approved material is on file at the Office of the Federal Register, Washington, DC 20408 and at U.S. Coast Guard, Room 1410, 2100 Second Street, SW., Washington, DC 20593. Copies may be obtained from the sources indicated in paragraph (c) of this section.

(c) The materials approved for incorporation by reference in this part are: Federal Highway Administration (FHWA), 400 Seventh Street, SW., Washington, DC 20590

Standard Alphabets for Highways Signs, 1966. (Reprinted April 1984).

[CGD 84-022, 51 FR 16313, May 2, 1986]

### § 118.5 Penalty for failure to maintain.

Any person required to maintain lights and other signals upon any bridge or abutment over or in the navigable waters of the United States who fails or refuses to maintain such lights and other signals, or to obey any of the lawful rules and regulations relating to the same is subject to a penalty as provided in 14 U.S.C. 85.

### § 118.10 Interference or obstruction prohibited.

No person shall obstruct or interfere with any lights or signals maintained in accordance with the regulations prescribed in this part.

### § 118.15 Penalty for interference or obstruction.

Any person violating the provisions of § 118.10 of this chapter shall be deemed guilty of a misdemeanor and be

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subject to a fine not exceeding \$500 for each offense. Each day during which such violation shall continue shall be considered a new offense.

[40 FR 24898, June 11, 1975, as amended by CGD 75-046a, 42 FR 56954, Oct. 31, 1977]

### § 118.20 Obtaining information.

Persons desiring information concerning the marking of bridges shall address their inquiry to the District Commander having jurisdiction over the area concerned, or to the Commandant.

### § 118.25 Application procedure.

Approval of lights and other signals required shall be obtained, prior to construction, from the District Commander of the area in which the structure will be situated. Application shall be by letter accompanied by duplicate sets of drawings showing (a) plan and elevation of the structure showing lights and signals proposed, and (b) small scale vicinity chart showing proposed bridge and all other bridges within 1,000 feet above or below the proposed bridge.

### § 118.30 Action by Coast Guard.

(a) The District Commander receiving the application will review it and approve the lights and other signals proposed, or mark on the drawings, the lights and other signals required, and in the case of lights, cite the applicable section of this chapter which prescribes the lights required for the particular type bridge.

(b) Upon approval, one set of drawings will be returned to the applicant with the notation "navigational lights and/or other signals approved as shown", date, name and title of the District Commander.

### § 118.40 Modification of requirements.

(a) The District Commander may modify the requirements for the display of lights and other signals on any bridge when a change in local conditions warrants the modification.

(b) The District Commander may exempt bridges over waterways with no significant nighttime navigation from the lighting or other signal requirements in this part.

(c) The District Commander may prescribe special lighting or other signals in specific cases when the lighting or other signals in this part may not provide adequately for the safe passage of vessels.

(d) While a bridge is under construction, the District Commander prescribes the temporary lights and other signals to be displayed for the protection of navigation.

[CGD 84-022, 51 FR 16313, May 2, 1986]

### § 118.45 Lighting for the protection of aerial navigation.

The owner of a bridge which constitutes a hazard to aerial navigation should maintain, in addition to the lights prescribed in this part, such lights as may be prescribed by the Administrator, Federal Aviation Administration.

[40 FR 24898, June 11, 1975, as amended by CGD 75-046a, 42 FR 56954, Oct. 31, 1977]

### § 118.50 Inspection.

Lights and other signals required or authorized under this part are subject to inspection at any time by Coast Guard personnel or authorized agents.

[CGD 84-022, 51 FR 16313, May 2, 1986]

### § 118.55 Periods of operation.

(a) Lights shall be displayed from sunset to sunrise and at other times when the visibility is less than one mile.

(b) Operators shall not be required to exhibit the prescribed lights during seasons when vessels are unable to navigate in the vicinity of the bridge.

(c) The operation of signals other than lights shall be as prescribed by the District Commander. Each case shall be considered individually.

### § 118.60 Characteristics of lights.

All lights required or authorized under this part must be securely attached to the structure and of sufficient candlepower as to be visible against the background lighting at a distance of at least 2,000 yards 90 percent of the nights of the year. Lights must meet the requirements of this part. Lights shall be fixed lights excepting as provided in §§118.95, 118.110 and 118.150 of this part. Color specifica-

## §118.70

tions are not prescribed for bridge lights, however, the chromaticity standards for navigation lights in Annex I, Appendix A of 33 CFR Part 81 are recommended.

[CGD 84-022, 51 FR 16313, May 2, 1986]

### §118.65 Lights on fixed bridges.

(a) Each fixed bridge span over a navigable channel shall be lighted so that the center of the navigable channel under each span will be marked by a range of two green lights, and each margin of each navigable channel will be marked by a red light: *Provided*, That when a margin of a channel is limited by a pier, only those lights prescribed in paragraph (b) of this section shall be required to mark such channel margin. The green lights shall each show through a horizontal arc of 360°; they shall be securely mounted just below the outermost edge of the bridge span structure so as to be visible from an approaching vessel. Each red light shall show through a horizontal arc of 180°, and shall be securely mounted just below the outermost edge of the bridge span structure to show 90° on either side of a line parallel to the axis of the channel so as to be visible from an approaching vessel.

*NOTE:* Until such time that major repairs to or replacements of existing fixed span navigation lights colored green are made, it is permitted that only one of these lights marking the centerline of the same channel under a span shall be visible to an approaching vessel. When major repairs to or replacement of such existing green lights are made they shall conform with this paragraph.

(b) *Pier lights.* When the navigable channel extends from pier to pier or when piers are located within the navigable channel, each end of such piers shall be lighted with a red light. Each such light shall show through a horizontal arc of 180°, and shall be securely fastened at the end of the pier as low as practicable but not lower than 2 feet above navigable high water to show 90° on either side of a line parallel to the axis of the channel so as to be visible from an approaching vessel.

(c) *Main channel.* When necessary, the District Commander may prescribe that fixed bridges having two or more spans over a navigable channel shall have the main channel span marked

with a set of three white lights arranged in a vertical line directly above each green light on the main channel span. Each white light shall show through a horizontal arc of 180°, and shall be mounted so that ½ of the horizontal arc will show on either side of a line parallel to the axis of the channel. These three white lights shall be securely mounted on the bridge structure and spaced as nearly 15 feet apart as the structure of the bridge will permit, with a minimum spacing of 7 feet. The lowest white light in the line of three lights shall be placed not less than 10 nor more than 15 feet above each green light on the main channel span.

*NOTE:* Until such time that major repairs to or replacements of existing main channel lights showing white are made, it is permitted that these lights show through a horizontal arc of not less than 60° nor more than 180° with ½ of such arc showing either side of a line parallel to the axis of the main channel. When major repairs or replacement of such existing white lights are made, they shall conform with this paragraph.

[40 FR 24898, June 11, 1975, as amended by CGD 75-046a, 42 FR 56954, Oct. 31, 1977]

### §118.70 Lights on swing bridges.

(a) *Swing span lights on through bridges.* Each swing span of every through swing bridge shall be lighted with three lanterns so that when viewed from an approaching vessel the swing span when closed will display three red lights on top of the span structure, one at each end of the span on the same level and one at the center of the span no less than 10 feet above the other two lights, and when open for navigation will display three green lights on top of the span structure in a line parallel to and directly above the long axis of the span, one at each end of the span on the same level, and one at the center of the span no less than 10 feet above the other two lights. Each lantern shall show through alternate red and green horizontal arcs of 60° each, the axis of adjacent arcs to be 90° from each other; each light shall be securely mounted with the axis of the green arcs parallel to the long axis of the swing span.

(b) *Swing span lights on deck and half-through bridges.* Each swing span of every deck, half-through, girder, or

## §118.75

similar type swing bridge shall be lighted with four lanterns so that when viewed from an approaching vessel the swing span when closed will display one red light at each end, and when open to navigation will display two green lights from each end. Each lantern shall show through one red and two green horizontal arcs of 60° each, the axis of each green arc to be 90° from the axis of the red arc; each light shall be securely mounted at the floor level of the span as near to the side of the span as practicable with the axis of the red light normal to the long axis of the swing span and so that the red light will be visible from an approaching vessel when the span is closed.

(c) *Pier lights.* Every swing bridge shall be lighted so that each end of the piers adjacent to the navigable channel (draw piers) or each end of their protection piers (draw pier protection piers) and each end of the piers protecting the pivot pier (pivot protection pier) will be marked by a red light. Each of these lights shall show through a horizontal arc of 180° and shall be mounted as low as practicable below the floor level of the swing span to show 90° on either side of a line parallel to the axis of the channel so as to be visible from an approaching vessel.

(d) *Axis lights.* Every swing bridge shall be lighted so that the intersection of the bridge axis with each side of the pivot pier and the channel side of each draw pier which has a protection pier will be marked by a red light: *Provided,* That if the draw and draw protection piers are straight along their channel faces these lights shall not be required. Each such light shall show through a horizontal arc of 180°, and shall be mounted on the navigable channel face of the pier as low as practicable below the floor level of the swing span to show 90° either side of a line normal to the axis of the navigable channel so as to be visible from an approaching vessel.

(e) *Omission of lights.* Where the permanent navigable channel passes on only one side of the pivot pier of any swing span, the District Commander may authorize the omission of lighting of the unused channel.

## §118.75 Lights on single-opening drawbridges.

(a) *Bridges in this class.* Bridges of the folding, pontoon and similar type single opening drawbridges are included in this class.

(b) *Draw span lights.* Each draw span of every single opening drawbridge shall be lighted with two lanterns so that when viewed from an approaching vessel the draw span when closed will display two red lights, one at each end of the span and when open to navigation will display two green lights, one at each end of the span. Each lantern shall show alternate red and green horizontal arcs of 60° each, the axis of adjacent arcs to be located 90° from each other; each lantern shall be securely mounted 15 feet above the roadway with the axis of the green arcs parallel to the long axis of the swing span.

(c) *Pier or abutment lights.* Every swing bridge shall be lighted so that the end of each pier, abutment or fixed portion of the bridge adjacent to the navigable channel through the draw, or each end of the protection piers for such piers, abutments, or fixed portion of the bridge will be marked by a red light. Each red light shall show through an arc of 180°, and shall be securely mounted on the pier, abutment or fixed portion of the bridge as low as practicable to show 90° on either side of a line parallel to the axis of the channel so as to be visible from an approaching vessel.

## §118.80 Lights on bascule bridges.

(a) *Lift span lights.* Each lift span of every bascule bridge shall be lighted so that the free end of the span will be marked on each side by a green light which shows only when the span is fully open for the passage of a vessel and by a red light which shows for all other positions of the lift span. Each red and each green light shall show through a horizontal arc of 180°. The lighting apparatus shall be securely mounted to the side of the span so that the light will show equally on either side of a line parallel to the axis of the channels, so that they will be visible from an approaching vessel.

NOTE: Until such time that major repairs to or replacement of lift span navigation lights are made, existing lights may show

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through a horizontal arc of less than 180°. When major repairs to or replacement of existing lights are made they shall conform with this paragraph.

(b) *Multiple parallel lift span lights.* The outermost side of each outer span of every bascule bridge with parallel multiple lifts shall be lighted as prescribed in paragraph (a) of this section; the lights shall be controlled so that the green lights will be displayed only when all spans are open for navigation. The inner sides of each outer lift span and both sides of each inner lift span of such bascule bridge shall be lighted by red lights for all positions of the lift span. These lights shall have the same arcs of illumination and shall be mounted as described in paragraph (a) of this section.

(c) *Pier lights.* Every bascule bridge shall be lighted so that each end of every pier, or protection pier where provided, in or adjacent to the navigable channels under the lift span or spans will be marked by a red light. Each such red light shall show through a horizontal arc of 180°, and shall be securely mounted as low as practicable on the end of the pier, or protection pier, to show 90° either side of a line parallel to the axis of the navigable channel so as to be visible from an approaching vessel.

(d) *Axis lights.* Every bascule bridge which has at least one pier provided with a protection pier shall be lighted so that the intersection of the long axis of the lift span with the channel side of each pier, or protection pier, will be marked by a red light: *Provided*, That if all such piers and protection piers are straight along their channel faces these lights shall not be required. Each such red light shall show through a horizontal arc of 180° and shall be securely mounted on the navigable channel face of the pier as low as practicable to show 90° on either side of a line normal to the axis of the navigable channel so as to be visible from an approaching vessel.

§ 118.85 Lights on vertical lift bridges.

(a) *Lift span lights.* The vertical lift span of every vertical lift bridge shall be lighted so that the center of the navigable channel under the span will be marked by a range of two green

lights when the vertical lift span is open for navigation, and by one red light on each side for all other positions of the lift span. The green lights shall each show through a horizontal arc of 360°; they shall be securely mounted just below the outermost edge of the bridge span structure so as to be visible from an approaching vessel. Each red light shall show through a horizontal arc of 180°, and shall be securely mounted just below the outermost edge of the lift span to show 90° on either side of the line parallel to the axis of the channel so that only one such light will be visible from an approaching vessel.

NOTE: Until such time that major repairs to or replacement of lift span navigation lights are made, it is permitted that these lights show through a horizontal arc of not more than 60°. When major repairs to or replacement of such existing lights are made they shall conform with this paragraph.

(b) *Pier lights.* Every vertical lift bridge shall be lighted so that each end of every pier in or adjacent to navigable channels under the lift span, or each end of every protection pier when provided, will be marked by a red light. Each such light shall show through a horizontal arc of 180°, and shall be securely mounted as low as practicable on the end of the pier, or the protection pier, to show 90° on either side of a line parallel to the axis of the navigable channel so as to be visible from an approaching vessel.

(c) *Axis lights.* Every lift bridge which has at least one pier provided with a protection pier shall be lighted so that the intersection of the lift span axis with the channel side of each pier adjacent to the navigable channel will be marked by a red light: *Provided*, That if every such pier, or protection pier, is straight along its channel face these lights shall not be required. Each such light shall show through a horizontal arc of 180°, and shall be securely mounted on the navigable channel face of the pier as low as practicable to show 90° on either side of a line normal to the axis of the navigable channel so as to be visible from an approaching vessel.

[40 FR 24898, June 11, 1975, as amended by CGD 75-046a, 42 FR 56954, Oct. 31, 1977]

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### § 118.90 Bridges crossing channel obliquely.

Bridges crossing a body of water at an angle other than 90° with the axis of the channel shall be lighted in accordance with the regulations in this part with such modifications as are necessary in each particular case.

### § 118.95 Lights on structures not part of a bridge or approach structure.

Lights on sheer booms, isolated piers, obstructions, and other structures not part of a bridge or approach structure must meet the requirements for aids to navigation in Subpart 66.01 of Part 66 of this chapter.

[CGD 84-022, 51 FR 16313, May 2, 1986]

### § 118.100 Retroreflective panels on bridge piers.

The District Commander may require or authorize the display of high intensity red or green retroreflective panels when the District Commander finds it necessary:

(a) To better identify a hazardous pier.

(b) To provide a backup for red pier lights, red channel margin lights, and green mid channel lights, which are subject to vandalism or otherwise difficult to properly maintain. If the District Commander determines that the nominal nighttime visibility required is less than one-half mile, the panels must be at least six inches square. If the visibility required is more than one-half mile, the panels must be at least 12 inches square.

(c) To mark bridge piers or channel sides on bridges not required to have bridge lighting. Lateral significant red triangles and green square retroreflective panels shall be used. The panels shall be at least 36 square inches in area to provide a nominal nighttime visibility distance of at least one-half mile.

[CGD 84-022, 51 FR 16313, May 2, 1986]

### § 118.105 [Reserved]

### § 118.110 Daymarks and lateral lighting on bridges.

(a) The District Commander may require or authorize the marking of the margins of navigation channels

through bridges with U.S. aids to navigation system lateral marks and lights installed on the superstructure or on the channel piers. The District Commander may also require or authorize the use of quick flashing, flashing, isophase or occulting red and green lights to mark the main channels.

(b) If lateral system lights are required or authorized to mark the main navigation channels, fixed yellow lights shall be used to mark the adjacent piers and the centerline of the channel shall be marked with the standard lateral system safe water mark and occulting white light, instead of the lights prescribed in § 118.65.

(c) The District Commander may require or authorize the marking of the centerline of the navigation channel drawspan of floating drawbridges with a special mark, diamond in shape, yellow in color, and with a high intensity retroreflective material border. The District Commander may require or authorize the mark to exhibit a flashing yellow light Morse Code "B" characteristic. The mark may not be visible when the drawspan is in the open position.

[CGD 84-022, 51 FR 16313, May 2, 1986]

### § 118.120 Radar reflectors and racons.

The District Commander may require or authorize the installation of radar reflectors and racons on bridge structures, stakes, or buoys. Radar reflectors are used to mark the location of the edge of the navigation channel or bridge channel piers. Racons are used to mark the centerline of the channel.

[CGD 84-022, 51 FR 16313, May 2, 1986]

### § 118.130 Fog signals.

On waterways where visibility is frequently reduced due to fog or other causes, the District Commander may require or authorize the installation of one or more fog signals to warn the navigator of the presence of the bridge. The fog signals must conform to the installation, range, and sound frequencies provisions in Subpart 67.10 of Part 67 of this chapter. If more than one fog signal is installed on a bridge or in the vicinity, their characteristics must be different to distinguish each signal. The fog signals must be direc-

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tional to the fullest extent possible to minimize adverse impact on local residents.

[CGD 84-022, 51 FR 16313, May 2, 1986]

§ 118.140 Painting bridge piers.

The District Commander may require painting the sides of bridge channel piers below the superstructure facing traffic white or yellow when they are significantly darkened by weathering or other causes so as to be poorly visible against a dark background.

[CGD 84-022, 51 FR 16314, May 2, 1986]

§ 118.150 Traveller platforms.

The District Commander may require under deck traveller platforms which may significantly reduce the vertical clearance when operated over navigation channels at night to be lighted with quick flashing red lights on each of the four lower corners.

[CGD 84-022, 51 FR 16314, May 2, 1986]

§ 118.160 Vertical clearance gauges.

(a) When necessary for reasons of safety of navigation, the District Commander may require or authorize the installation of clearance gauges. Except as specified in § 117.47(b) of this chapter for certain drawbridges, clearance gauges must meet the requirements of this section.

(b) Clearance gauges must indicate the vertical distance between "low steel" of the bridge channel span and the level of the water, measured to the bottom of the foot marks, read from top to bottom. Each gauge must be installed on the end of the right channel pier or pier protection structure facing approaching vessels and extend to a reasonable height above high water so as to be meaningful to the viewer. Other or additional locations may be prescribed by the District Commander if particular conditions or circumstances warrant.

(c) *Construction.* Each gauge must be permanently fixed to the bridge pier or pier protection structure and made of a durable material of sufficient strength to provide resistance to weather, tide, and current. Gauges may be painted directly on the bridge channel pier or pier protection structure if the surface is suitable and has sufficient width to

accommodate the foot marks (graduations) and numerals.

(d) *Numerals.* (1) Each gauge must be marked by black numerals and foot marks on a white background. Paint, if used, must be of good exterior quality, resistant to excessive chalking or bleeding. Manufactured numerals and background material may be used.

(2) The size, type, and spacing of numerals must conform to the Standard Alphabets for Highway Signs and the following table. The nominal day visibility distance is the distance at which the clearance information needs to be ascertained by approaching vessel operators. The District Commander determines this distance for each bridge.

Nominal day visibility distance (feet)	Height of numeral (inches)	Type of numeral	Vertical spacing of numerals (feet)
Less than 500 .....	12	Series C ...	2
500 to 750 .....	18	Series C ...	2
750 to 1,000 .....	24	Series D ...	5
1,000 to 2,000 .....	30	Series E ...	5
More than 2,000 .....	36	Series E ...	10

(3) The length of the foot marks must be no less than the width of a single numeral used (except numerals 1 and 4), be the same thickness as the width of stroke of the numeral, and extend to the nearest margin of the white background. Foot marks must be spaced every foot for nominal day visibility of less than 500 feet, every two feet for a nominal day visibility of more than 500 feet but less than 1,000 feet, and every five feet for nominal day visibility of more than 1,000 feet.

(4) Intermediate foot marks may be used when more precise determination of actual clearance is necessary. Such intermediate foot marks must have a width of stroke one-half the width of the stroke required for the numeral and shall be three-quarters as long as the primary foot marks.

(5) The horizontal distance between the numeral and nearest edge of the white background shall be no less than one-half the width of a single numeral (excepting numerals 1 and 4).

(6) The minimum width of the white background shall be no less than three times the width of a single numeral (excepting numerals 1 and 4) plus the widths of each additional numeral

**§118.160**

(when multiple numerals are used plus numeral spacing).

(e) *Maintenance.* The owner or operator of the bridge shall maintain each gauge in good repair and legible condition. The bridge owner or operator is responsible for the accuracy of the

gauge and shall remeasure the vertical distance of the numerals and foot marks below "low steel" of the bridge whenever the gauge is repainted or the structure is repaired.

[CGD 84-022, 51 FR 16314, May 2, 1986]

TITLE 46. SHIPPING  
SUBTITLE II. VESSELS AND SEAMEN  
PART B. INSPECTION AND REGULATION OF VESSELS  
CHAPTER 41. UNINSPECTED VESSELS GENERALLY

46 USCS § 4102 (1992)

§ 4102. Safety equipment

- (a) Each uninspected vessel propelled by machinery shall be provided with the number, type, and size of fire extinguishers, capable of promptly and effectively extinguishing burning liquid fuel, that may be prescribed by regulation. The fire extinguishers shall be kept in condition for immediate and effective use and so placed as to be readily accessible.
- (b) Each uninspected vessel propelled by machinery shall carry at least one readily accessible life preserver or other lifesaving device, of the type prescribed by regulation, for each individual on board.
- (c) Each uninspected vessel shall have the carburetors of each engine of the vessel (except an outboard motor) using gasoline as fuel, equipped with an efficient flame arrestor, backfire trap, or other similar device prescribed by regulation.
- (d) Each uninspected vessel using a volatile liquid as fuel shall be provided with the means prescribed by regulation for properly and efficiently ventilating the bilges of the engine and fuel tank compartments, so as to remove any explosive or flammable gases.
- (e) Each manned uninspected vessel operating on the high seas or beyond threenautical miles from the coastline of the Great Lakes shall be equipped with the number and type of alerting and locating equipment, including emergency positionindicating radio beacons, prescribed by the Secretary.

HISTORY: (Aug. 26, 1983, P.L. 98-89, § 1, 97 Stat. 528; Nov. 10, 1986, P.L. 99-640, § 16, 100 Stat. 3552.) (As amended Sept. 9, 1988, P.L. 100-424, § 2(c), 102 Stat. 1590; Oct. 28,

**ENCLOSURE(7)**

TITLE 33. NAVIGATION AND NAVIGABLE WATERS  
CHAPTER 24. VESSEL BRIDGE-TO-BRIDGE COMMUNICATIONS

33 USC § 1201 (1992)

1201. Statement of purpose

It is the purpose of this Act [33 USC §§ 1201 et seq.] to provide a positive means whereby the operators of approaching vessels can communicate their intentions to one another through voice radio, located convenient to the operator's navigation station. To effectively accomplish this, there is need for a specific frequency or frequencies dedicated to the exchange of navigational information, on navigable waters of the United States.

HISTORY: (Aug. 4, 1971, P.L. 92-63, § 2, 85 Stat. 164.)

§ 1202. Definitions

For the purpose of this Chapter -

- (1) "Secretary" means the Secretary of the Department in which the Coast Guard is operating;
- (2) "power-driven vessel" means any vessel propelled by machinery; and
- (3) "towing vessel" means any commercial vessel engaged in towing another vessel astern, alongside, or by pushing ahead.

§ 1203. Radiotelephone requirement

(a) Vessel coverage; exchange of navigational information. Except as provided in section 1206 of this title--

- (1) every power-driven vessel of twenty meters or over in length while navigating;
- (2) every vessel of one hundred gross tons and upward carrying one or more passengers for hire while navigating;
- (3) every towing vessel of twenty-six feet or over in length while navigating; and
- (4) every dredge and floating plant engaged in or near a channel or fairway in operations likely to restrict or affect navigation of other vessels--

shall have a radiotelephone capable of operation from its navigational bridge or, in the case of a dredge, from its main control station and capable of transmitting and receiving on the frequency or frequencies within the 156--162 Mega-Hertz band

ENCLOSURE (18)

using the classes of emissions designated by the Federal Communications Commission, after consultation with other cognizant agencies, for the exchange of navigational information.

(b) Vessels upon navigable waters of United States inside high seas lines. The radiotelephone required by subsection (a) shall be carried on board the described vessels, dredges, and floating plants upon the navigable waters of the United States inside the lines established pursuant to section 151 of this title.

HISTORY: (Aug. 4, 1971, P.L. 92-63, § 4, 85 Stat. 164.)  
(As amended Dec. 19, 1991, P.L. 102-241, § 16, 105 Stat. 2213.)

§ 1204. Radiotelephone for exclusive use of master, person in charge, or pilot; frequency listening watch; portable radiotelephone equipment

The radiotelephone required by this Act is for the exclusive use of the master or person in charge of the vessel, or the person designated by the master or person in charge to pilot or direct the movement of the vessel, who shall maintain a listening watch on the designated frequency. Nothing contained herein shall be interpreted as precluding the use of portable radiotelephone equipment to satisfy the requirements of this Act.

HISTORY: (Aug. 4, 1971, P.L. 92-63, § 5, 85 Stat. 165.)

§ 1205. Radiotelephone capability; maintenance; restoration; consequences of loss; navigation of vessel

Whenever radiotelephone capability is required by this Chapter, a vessel's radiotelephone equipment shall be maintained in effective operating condition. If the radiotelephone equipment carried aboard a vessel ceases to operate, the master shall exercise due diligence to restore it or cause it to be restored to effective operating condition at the earliest practicable time. The failure of a vessel's radiotelephone equipment shall not, in itself, constitute a violation of this Chapter, nor shall it obligate the master of any vessel to moor or anchor his vessel; however, the loss of radiotelephone capability shall be given consideration in the navigation of the vessel.

§ 1206. Exemptions; terms and conditions

The Secretary may, if he considers that marine navigational safety will not be adversely affected or where a local communication system fully complies with the intent of this concept but does not conform in detail, issue exemptions from any

provisions of this Chapter, on such terms and conditions as he considers appropriate. ]

HISTORY: (Aug. 4, 1971, P.L. 92-63, § 7, 85 Stat. 165.)

#### § 1207. Regulations

(a) Operating and technical conditions and characteristics; frequencies, emission, and power of radiotelephone equipment.

The Federal Communications Commission shall, after consultation with other cognizant agencies, prescribe regulations necessary to specify operating and technical conditions and characteristics including frequencies, emission, and power of radiotelephone equipment required under this Chapter.

#### § 1208. Penalties

(a) Master, person in charge, or pilot subject to penalty.

Whoever, being the master or person in charge of a vessel subject to this Chapter, fails to enforce or comply with this Chapter or the regulation, hereunder; or

Whoever, being designated by the master or person in charge of a vessel subject to this Chapter to pilot or direct the movement of the vessel, fails to enforce or comply with this Chapter or the regulations hereunder--

Is liable to a civil penalty of not more than \$ 500 to be assessed by the Secretary.

(b) Vessels subject to penalty; jurisdiction.

Every vessel navigating in violation of this Chapter or the regulations hereunder is liable to a civil penalty of not more than \$500 to be assessed by the Secretary for which the vessel may be proceeded against in any district court of the United States having jurisdiction.

(c) Remission or mitigation.

Any penalty assessed under this section may be remitted or mitigated by the Secretary upon such terms as he may deem proper.

HISTORY: (Aug. 4, 1971, P.L. 92-63, § 9, 85 Stat. 165.)

## PART 26—VESSEL BRIDGE-TO-BRIDGE RADIOTELEPHONE REGULATIONS

- Sec.
- 26.01 Purpose.
- 26.02 Definitions.
- 26.03 Radiotelephone required.
- 26.04 Use of the designated frequency.
- 26.05 Use of radiotelephone.
- 26.06 Maintenance of radiotelephone; failure of radiotelephone.
- 26.07 English language.
- 26.08 Exemption procedures.
- 26.09 List of exemptions.
- 26.10 Penalties.

AUTHORITY: 33 U.S.C. 1201-1208; Sec. 4118, Pub. L. 101-380, 104 Stat. 523; Sec. 16, Pub. L. 102-241, 105 Stat. 2208; 49 CFR 1.46.

SOURCE: CGD 71-114R, 37 FR 12720, June 28, 1972, unless otherwise noted.

### § 26.01 Purpose.

(a) The purpose of this part is to implement the provisions of the Vessel Bridge-to-Bridge Radiotelephone Act. This part:

- (1) Requires the use of the vessel bridge-to-bridge radiotelephone;
- (2) Provides the Coast Guard's interpretation of the meaning of important terms in the Act;
- (3) Prescribes the procedures for applying for an exemption from the Act and the regulations issued under the Act and a listing of exemptions.

(b) Nothing in this part relieves any person from the obligation of complying with the rules of the road and the applicable pilot rules.

### § 26.02 Definitions.

For the purpose of this part and interpreting the Act:

*Secretary* means the Secretary of the Department in which the Coast Guard is operating;

*Act* means the "Vessel Bridge-to-Bridge Radiotelephone Act", 33 U.S.C. sections 1201-1208;

*Length* is measured from end to end over the deck excluding sheer;

*Power-driven vessel* means any vessel propelled by machinery; and

*Towing vessel* means any commercial vessel engaged in towing another vessel astern, alongside, or by pushing ahead.

(Rule 1, International Regulations for Preventing Collisions at Sea, 1972 (as rectified); EO 11864 (14 U.S.C. 2); 49 CFR 1.46(b))

[CGD 71-114R, 37 FR 12720, June 28, 1972, as amended by CGD 77-118a, 42 FR 35784, July 11, 1977]

### § 26.03 Radiotelephone required.

(a) Unless an exemption is granted under § 26.09 and except as provided in paragraph (a)(4) of this section, this part applies to:

(1) Every power-driven vessel of 20 meters or over in length while navigating;

(2) Every vessel of 100 gross tons and upward carrying one or more passengers for hire while navigating;

(3) Every towing vessel of 26 feet or over in length while navigating; and

(4) Every dredge and floating plant engaged in or near a channel or fairway in operations likely to restrict or affect navigation of other vessels except for an unmanned or intermittently manned floating plant under the control of a dredge.

(b) Every vessel, dredge, or floating plant described in paragraph (a) of this section must have a radiotelephone on board capable of operation from its navigational bridge, or in the case of a dredge, from its main control station, and capable of transmitting and receiving on the frequency or frequencies within the 156-162 Mega-Hertz band using the classes of emissions designated by the Federal Communications Commission for the exchange of navigational information.

(c) The radiotelephone required by paragraph (b) of this section must be carried on board the described vessels, dredges, and floating plants upon the navigable waters of the United States.

(d) The radiotelephone required by paragraph (b) of this section must be capable of transmitting and receiving on VHF FM channel 22A (157.1 MHz).

(e) While transiting any of the following waters, each vessel described in paragraph (a) of this section also must have on board a radiotelephone capable of transmitting and receiving on VHF FM channel 67 (156.375 MHz):

(1) The lower Mississippi River from the territorial sea boundary, and within either the Southwest Pass safety fairway or the South Pass safety fair-

## §26.04

way specified in 33 CFR 166.200, to mile 242.4 AHP (Above Head of Passes) near Baton Rouge;

(2) The Mississippi River-Gulf Outlet from the territorial sea boundary, and within the Mississippi River-Gulf outlet Safety Fairway specified in 33 CFR 166.200, to that channel's junction with the Inner Harbor Navigation Canal; and

(3) The full length of the Inner Harbor Navigation Canal from its junction with the Mississippi River to that canal's entry to Lake Pontchartrain at the New Seabrook vehicular bridge.

[CGD 91-046, 57 FR 14485, Apr. 21, 1992; 57 FR 21740, May 22, 1992]

### §26.04 Use of the designated frequency.

(a) No person may use the frequency designated by the Federal Communications Commission under section 8 of the Act, 33 U.S.C. 1207(a), to transmit any information other than information necessary for the safe navigation of vessels or necessary tests.

(b) Each person who is required to maintain a listening watch under section 5 of the Act shall, when necessary, transmit and confirm, on the designated frequency, the intentions of his vessel and any other information necessary for the safe navigation of vessels.

(c) Nothing in these regulations may be construed as prohibiting the use of the designated frequency to communicate with shore stations to obtain or furnish information necessary for the safe navigation of vessels.

(d) On the navigable waters of the United States, channel 13 (156.65 MHz) is the designated frequency required to be monitored in accordance with §26.05(a) except that in the area prescribed in §26.03(e), channel 67 (156.375 MHz) is the designated frequency.

(85 Stat. 164; 33 U.S.C. 1201-1208; 49 CFR 1.46(n)(2))

[CGD 71-114R, 37 FR 12720, June 28, 1982, as amended by CGD 83-036, 48 FR 30107, June 30, 1983; CGD 91-046, 57 FR 14486, Apr. 21, 1992; 57 FR 21741, May 22, 1992]

### §26.05 Use of radiotelephone.

Section 5 of the Act states:

(a) The radiotelephone required by this Act is for the exclusive use of the master or per-

son in charge of the vessel, or the person designated by the master or person in charge of the vessel, or the person designated by the master or person in charge to pilot or direct the movement of the vessel, who shall maintain a listening watch on the designated frequency. Nothing contained herein shall be interpreted as precluding the use of portable radiotelephone equipment to satisfy the requirements of this Act.

### §26.06 Maintenance of radiotelephone; failure of radiotelephone.

Section 6 of the Act states:

(a) Whenever radiotelephone capability is required by this Act, a vessel's radiotelephone equipment shall be maintained in effective operating condition. If the radiotelephone equipment carried aboard a vessel ceases to operate, the master shall exercise due diligence to restore it or cause it to be restored to effective operating condition at the earliest practicable time. The failure of a vessel's radiotelephone equipment shall not, in itself, constitute a violation of this Act, nor shall it obligate the master of any vessel to moor or anchor his vessel; however, the loss of radiotelephone capability shall be given consideration in the navigation of the vessel.

### §26.07 English language.

No person may use the services of, and no person may serve as a person required to maintain a listening watch under section 5 of the Act, 33 U.S.C. 1204 unless he can speak the English language.

### §26.08 Exemption procedures.

(a) Any person may petition for an exemption from any provision of the Act or this part;

(b) Each petition must be submitted in writing to U.S. Coast Guard, Office of Navigation Safety and Waterway Services, 2100 Second Street SW., Washington, DC 20593-0001, and must state:

(1) The provisions of the Act or this part from which an exemption is requested; and

(2) The reasons why marine navigation will not be adversely affected if the exemption is granted and if the exemption relates to a local communication system how that system would fully comply with the intent of the concept of the Act but would not conform in detail if the exemption is granted.

## §26.10

[CGD 71-114R, 37 FR 12720, June 28, 1972, as amended by CGD 73-256, 39 FR 9176, Mar. 8, 1974; CGD 88-052, 53 FR 25119, July 1, 1988]

### §26.09 List of exemptions.

(a) All vessels navigating on those waters governed by the navigation rules for Great Lakes and their connecting and tributary waters (33 U.S.C. 241 et seq.) are exempt from the requirements of the Vessel Bridge-to-Bridge Radiotelephone Act and this part until May 6, 1975.

(b) Each vessel navigating on the Great Lakes as defined in the Inland Navigational Rules Act of 1980 (33 U.S.C. 2001 et seq.) and to which the Vessel Bridge-to-Bridge Radiotelephone Act (33 U.S.C. 1201-1208) applies is exempt from the requirements in 33 U.S.C. 1203, 1204, and 1205 and the regulations under §§26.03, 26.04, 26.05, 26.06, and 26.07. Each of these vessels and each person to whom 33 U.S.C. 1208(a) applies must comply with Articles VII, X, XI, XII, XIII, XV, and XVI and Technical Regulations 1-9 of "The Agreement Between the United States of America and Canada for Promotion

of Safety on the Great Lakes by Means of Radio, 1973."

[CGD 72-223R, 37 FR 28633, Dec. 28, 1972, as amended by CGD 74-291, 39 FR 44980, Dec. 30, 1974; CGD 83-003, 48 FR 7442, Feb. 18, 1983; CGD 91-046, 57 FR 14486, Apr. 21, 1992]

### §26.10 Penalties.

Section 9 of the Act states:

(a) Whoever, being the master or person in charge of a vessel subject to the Act, fails to enforce or comply with the Act or the regulations hereunder; or whoever, being designated by the master or person in charge of a vessel subject to the Act to pilot or direct the movement of a vessel fails to enforce or comply with the Act or the regulations hereunder—is liable to a civil penalty of not more than \$500 to be assessed by the Secretary.

(b) Every vessel navigated in violation of the Act or the regulations hereunder is liable to a civil penalty of not more than \$500 to be assessed by the Secretary, for which the vessel may be proceeded against in any District Court of the United States having jurisdiction.

(c) Any penalty assessed under this section may be remitted or mitigated by the Secretary, upon such terms as he may deem proper.

# MOBILE RIVER WAMS UPDATE STUDY

November 1993

## EXECUTIVE SUMMARY

Coast Guard Group Mobile has recently completed a Waterways Analysis and Management System (WAMS) update study of the Mobile River. The study, although already scheduled as part of our ongoing WAMS program, was completed early to ascertain if the aids to navigation system was adequate in light of the recent train disaster. The study was completed by a diverse study group. Represented were Coast Guard Group and ANT Mobile, COTP Mobile, the U.S. Army Corps of Engineers, and various members of industry.

The Mobile River (Eighth District waterway number 8060) extends from the Cochrane Bridge in the City of Mobile about 45 miles upstream to the confluence of the Tombigbee and Alabama rivers. The Mobile River is a congressionally approved, Federal Navigation Project and as such is maintained by the U.S. Army Corps of Engineers. Because of the river's naturally deep water, maintenance of the 9 by 200 foot channel has, thus far, been limited to periodic surveys. The river is marked using the U.S. Western Rivers Aids to Navigation System. The system, which differs significantly from coastal aids to navigation, primarily uses crossing and passing boards and buoys to show the mariner the limits of the channel.

The study group found that the aids to navigation in the vicinity of Big Bayou Canot are adequate. The aids lead the mariner along the left descending bank and away from the mouth of the bayou. However, because of the demonstrated potential for a catastrophic accident in the bayou, the study further recommends placing orange and white, diamond shaped, marks labeled "DANGER" at the mouth of the bayou. We concur with this recommendation to warn wayward mariners but believe these markers should be placed several hundreds yards back in the bayou. This will have the same effect but prevent vessels passing in the Mobile River from misconstruing their meaning.

The WAMS makes several other recommendations for minor changes in the aids to navigation system, but all are several miles from Big Bayou Canot. An additional recommendation regarded the inadequacy of the fender works for the railroad swing bridge at mile 14 of the Mobile River. COTP Mobile made the owner aware of the fender work's deficiencies and the threat presented by today's larger, more powerful tows and strongly urged him to fortify the fender works to prevent a repeat of the Amtrak disaster. This particular bridge is adequately marked by up and down bound ranges and approach buoys.

ENCLOSURE(20)

103D CONGRESS  
1ST SESSION

# H. R. 3282

To amend title 46, United States Code, to improve towing vessel navigational safety.

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## IN THE HOUSE OF REPRESENTATIVES

OCTOBER 14, 1993

Mr. TAUZIN (for himself, Mr. STUDDS, Mr. FIELDS of Texas, and Mr. COBLE) introduced the following bill; which was referred to the Committee on Merchant Marine and Fisheries

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## A BILL

To amend title 46, United States Code, to improve towing vessel navigational safety.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the "Towing Vessel Naviga-  
5 tional Safety Act of 1993".

6 **SEC. 2. MINIMUM NAVIGATIONAL SAFETY EQUIPMENT FOR**  
7 **TOWING VESSELS.**

8 (a) **IN GENERAL.**—Section 4102 of title 46, United  
9 States Code, is amended by adding at the end the  
10 following:

**ENCLOSURE(21)**

1       “(f) Each towing vessel to which this chapter applies  
2 shall be equipped with navigational publications and  
3 equipment as prescribed by the Secretary, including—

4               “(1) marine charts of the area being transited;

5               “(2) navigational publications for the area  
6 being transited;

7               “(3) compasses;

8               “(4) radar; and

9               “(5) a fathometer.”.

10       (b) REGULATIONS.—The Secretary of Transportation  
11 shall issue regulations by not later than 6 months after  
12 the date of the enactment of this Act, prescribing naviga-  
13 tional publication and equipment requirements under sub-  
14 section (f) of section 4102 of title 46, United States Code,  
15 as added by subsection (a) of this section.

16 **SEC. 3. DEMONSTRATION OF PROFICIENCY IN USE OF**  
17 **NAVIGATIONAL SAFETY EQUIPMENT RE-**  
18 **QUIRED.**

19       Section 7101 of title 46, United States Code, is  
20 amended by adding at the end the following:

21       “(j) The Secretary shall require an individual who ap-  
22 plies for issuance or renewal of a towing vessel operators  
23 license to demonstrate proficiency in the use of naviga-  
24 tional safety equipment.”.

1 **SEC. 4. REPORTING MARINE CASUALTIES.**

2 (a) **EXPEDITED REPORTING REQUIRED.**—Section  
3 6101(b) of title 46, United States Code, is amended by  
4 striking “within 5 days” and inserting “by as soon as  
5 practicable, but in no case later than within 5 days,”.

6 (b) **REGULATIONS.**—Not later than 90 days after the  
7 date of the enactment of this Act, the Secretary shall pre-  
8 scribe regulations implementing the amendment made by  
9 subsection (a).

10 **SEC. 5. REPORT ON ADEQUACY AND EFFECTIVENESS OF**  
11 **MANNING AND LICENSING REQUIREMENTS**  
12 **FOR OPERATION OF TOWING VESSELS.**

13 Not later than 6 months after the date of the enact-  
14 ment of this Act, the Secretary of Transportation shall  
15 submit a report to the Congress on the adequacy and ef-  
16 fectiveness of manning and licensing requirements for op-  
17 eration of towing vessels.

18 **SEC. 6. REPORT ON FEASIBILITY OF ESTABLISHING A DIF-**  
19 **FERENTIAL GLOBAL POSITIONING SAT-**  
20 **ELLITE NAVIGATION SYSTEM FOR INLAND**  
21 **WATERWAYS.**

22 Not later than 6 months after the date of the enact-  
23 ment of this Act, the Secretary of Transportation shall  
24 submit a report to the Congress on the feasibility of estab-  
25 lishing a differential global positioning satellite navigation  
26 system for the inland waterways of the United States.