PROCEEDINGS
OF THE MARINE SAFETY COUNCIL

Season's Greetings

DEPARTMENT OF TRANSPORTATION — UNITED STATES COAST GUARD

Vol. 28, No. 12 — CG-129 — December 1971

IN THIS ISSUE . . .

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

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BACK COVER: "Safety Takes No Holiday," by G. Seal, *Pacific Maritime Association*.

Season's Greetings

It is once again my pleasure to convey to all of you my best wishes for a joyous Christmas season and for a New Year filled with the spirit of brotherhood with which this season abounds. Happy Holidays and smooth sailing!

C. R. BENDER,
Admiral, U.S. Coast Guard,
Commandant.

DIST. (SDL No. 93)
A: abcdew(2); fghijklmnopqrstuv(1)
B: n(40); c(16); e(5); f(4); gh(3); bkijnq(1)
C: abcdefgimnou(1)
D: i(5); abdeklmnsuvx(1)
E: d(1)
F: kjp(1)
Lists 141M, CG–13,CG–20

PROCEEDINGS

OF THE

MERCHANT MARINE COUNCIL

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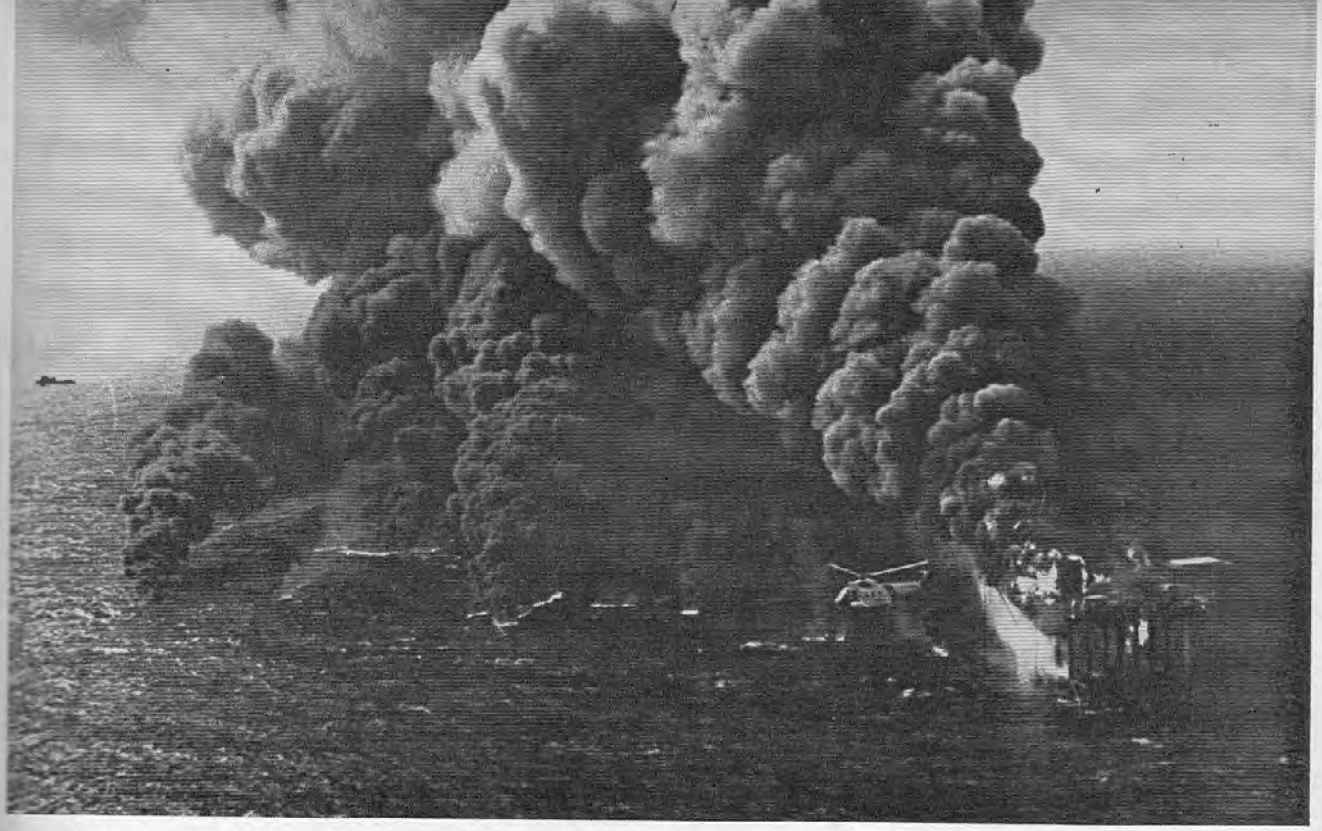
T. A. DeNardo, *Acting Editor*

December 19



The fire rages on the platform and patches of oil burn on the Gulf of Mexico water as a Coast Guard helicopter searches for survivors. At the far left, the burning M/V Carryhack *drifts downwind toward Galveston, Tex.*

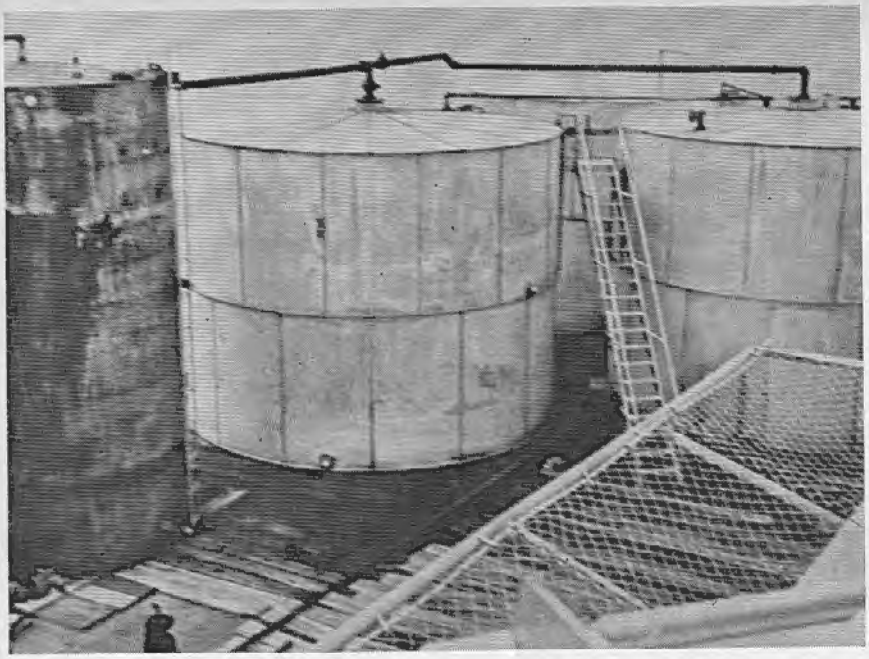
EXPLOSION AND FIRE ON OFFSHORE PLATFORM

THE *PRINCESS PATSY*, a pleasure craft operated by Mr. Edward Holdgraf, passed the Chambers and Kennedy Oil Platform at about 1600, on 28 May 1970, leaving it approximately 1,000 feet to the starboard enroute to Galveston, Tex., from a fishing trip with 10 persons aboard. Holdgraf was looking astern when he heard an explosion and saw a cloud of smoke and fire erupt from the area of the tanks atop the platform. He broadcast a distress signal which was acknowledged by U.S. Coast Guard Base Galveston, and he brought the boat about and ran at full speed toward the platform, arriving there in about 5 minutes. At this point, the voice radio receiver on the *Princess Patsy* failed, although Holdgraf could still transmit.

Holdgraf approached the platform from the southeast, the windward side. Twenty-five life preservers of the complement of 35 aboard the pleasure boat were thrown overboard for men in the water and those still grouped together on the cross braces of the structure. The *Princess Patsy*, with the help of its operator, its passengers, and survivors was able to rescue 15 men—most hauled aboard by a line made fast to a lifering which was thrown to them in the water. An unidentified pleasure boat picked up two other survivors and took them to Galveston.

At 1605 on that day, explosions and fire ripped the Chambers and Kennedy Offshore Oil Platform about 12 miles south of Galveston, Tex. The fire resulted in the deaths of five workmen on the platform and four men on board the M/V *Carryback* which was moored below the platform. In addition, six platform workmen were injured, the platform and the vessel were severely damaged and Galveston beaches were moderately polluted by oil.

The platform is an unmanned col-



Pictured above is the Chambers and Kennedy Offshore Oil Platform before the casualty. At the far left is the "gunbarrel"; center is Number 1 storage tank; right is number 5 storage tank. A welder struck an arc on the equalizing line above the ladder to the tank tops, setting off the explosions and fire.

lection platform for oil wells in Block 189–L. It was built of bolted steel and had originally served as a drilling site. The three gas wells drilled on the location were never put into production. Three oil wells were drilled some 4,500 yards southeast of the platform only one of which was put into production. Oil from this satellite well flowed through a 2⅞-inch pipeline to a separator on the platform. From there it flowed into a tall 12-foot-diameter cylindrical tank called a "gun barrel" which acted as a settling tank. As the gun barrel became full, the oil overflowed through a 4-inch line into one of five storage tanks which in turn was connected by equalizing lines to the other four storage tanks. Approximately every 2 weeks oil was discharged from the storage tanks to a tank barge to be carried away.

For several weeks prior to this casualty, the platform had been shut down for alterations and repairs. The work on the platform was to increase its production capacity, to bring the platform into compliance with U.S. Geological Survey requirements pertaining to pollution control, and to accomplish routine maintenance. The repair work consisted mainly of sandblasting, painting, removal of handrails, and renovation of some wasted structural members. Alterations included the installation of prefabricated drip pans under the oil tanks, fabrication of a separator, fitting a closed drain sump system, installation of an additional mooring and loading facility, and removal of a stop valve in the equalizing line between storage tanks numbers one and five.

The M/V *Carryback* transported the equipment and the 22 workmen to the platform from Galveston on the day of the casualty as she had since 7 May. At the time of the casualty, the *Carryback* was moored by a single line to the platform with its three crew members and the supervisory engineer of the platform workers aboard. Twenty-two men were on the platform engaged in work. The engineering company which had contracted with Chambers and Kennedy for operation, maintenance, and alterations of the platform, and barging the oil ashore was supervising the 22 workmen provided by another company. Overall responsibility was given to the supervising engineer. He was striving to complete the project by 30 May.

The equalizer line between number one and number five tanks was disassembled the day prior to the casualty. After the stop valve and attached fittings were removed, a new piece of 4-inch pipe was screwed into the flange to replace the valve and nipple assembly. This left two sections of the equalizer line separated by a ¼-inch gap. Plans for the work called for this connection to be made by threaded coupling, as there were about 1,600 barrels of crude oil in the tanks and 400 barrels in the gun barrel. The oil was a highly volatile product which appeared to be similar to a mixture of diesel fuel and light lubricating oil. Supervisory personnel knew of the presence of the oil, but felt that, even if a barge were readily available, there was so little oil that to remove it would not be economically feasible. And after removal, due to the location of the discharge valves, a foot of oil would remain in the tanks.

Some burning and welding had to be done to accomplish the alterations and repairs of the platform. It was expected that welding was not to be done in the immediate vicinity of the tanks and that piping connections were to be made with threaded fittings. However, not all persons involved in the work were aware of the prohibition against cutting and welding and of the type of connections to be made. Before the casualty, several workmen attempting to weld directly on the tanks were admonished. Some of the workmen were aware that there was oil in the tanks, but at least one believed that the

tanks had been gas-freed or filled with water.

On the day of the casualty, a welder and a workman were fitting drip pans on the number one storage tank. The supervising engineer allegedly told them to stop what they were doing and to weld the equalizer line between tanks number one and five. The supervisor then went aboard the *Carryback,* perhaps to make his daily progress report to his parent company. The workman carried the welding lead up a flight of steps to the grating below the equalizer line near the tops of the tanks. He handed the electrodes to the welder, then he went back down to the platform deck to increase the current setting on the welding machine. As he started to walk back to the ladder to the catwalk to help the welder, he saw the welder strike an arc on the equalizer line. The explosion occurred, blowing the welder through the air, clothing afire. A raging fire and a series of explosions ensued. Burning oil from the ruptured tanks enveloped the *Carryback* below.

The Chambers and Kennedy platform was extensively damaged by the explosion and fire on 28 May 1970. Damage to the structure was estimated at $200,000.

The top of the platform was some 58 feet above the surface of the water. The two normal means of leaving the platform were a stairway from the top level to a boat landing on the north end of the structure and a vertical ladder welded to the southeast leg of the structure. Some of the workmen escaped by using the southeast ladder, while others jumped from their positions on the platform into the water.

While Holdgraf on the *Princess Patsy* was rescuing survivors, the *Carryback* was seen adrift and engulfed by flames about 300 yards north of the structure. Holdgraf testified that he did not stop to board the *Carryback* because he was convinced that no survivors could be on board due to the intense fire.

The guests on board the *Princess Patsy* administered first aid to the injured survivors en route to Galveston. The injured were transferred to local hospitals for treatment of cuts, burns, and bruises. Most of the men were released immediately, but four were held for further treatment and observation.

The Coast Guard conducted an air and surface search for further survivors with negative results.

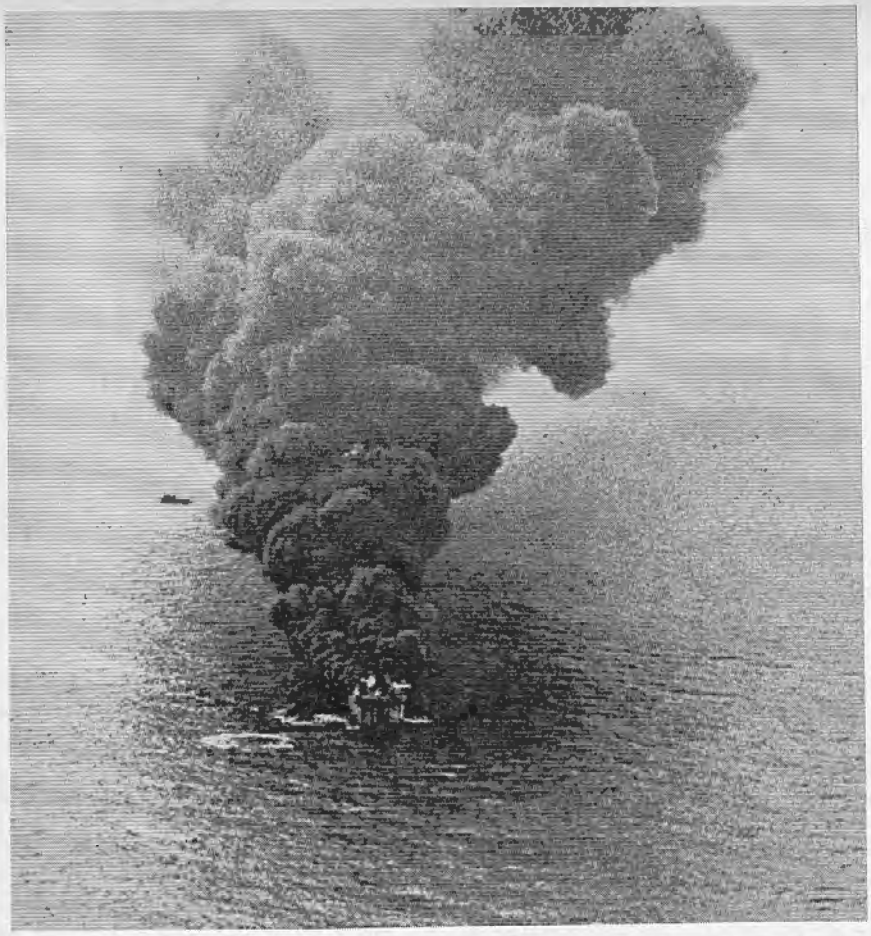
The still smouldering *Carryback* was taken in tow first by the M/V *Sugar Carri,* and then at 1900 on the day of the casualty, by the M/V *War Admiral.* At about 2300, after being thoroughly doused with water, the *Carryback* was towed into Galveston.

Two bodies were found on the *Carryback,* and another was found floating in the water 500 yards north of the platform by a Coast Guard helicopter. This body was identified as that of the *Carryback*'s Master, who had been aboard the vessel at the time of the casualty.

There were life preservers and other bouyant lifesaving devices on board the *Carryback* sufficient for her crew and for all of the platform workers; however, only four work vests and one ring buoy were known to be on the platform at the time of the explosion. These were in random locations as left by the men when brought on the platform, and they comprised the only buoyant lifesaving equipment on the structure.

The results of the casualty were severe. The dead included five platform workers, the supervising engineer, and all three crewmembers of the *Carryback.* Six other workers were hospitalized. The vessel was damaged beyond economic repair, its loss amounting to about $140,000. The fire on the platform burned itself out by the following morning, and firefighting personnel were able to close the master valve on a gasline which had ruptured. Fortunately, this gas leak had not ignited. Damage to the structure amounted to about $250,000. Most of the 100-barrel oil spill was cleaned up from Galveston beaches by using hay and straw.

The Coast Guard Marine Board of Investigation which investigated



A view from a Coast Guard aircraft looking north shows the billowing smoke from the burning crude oil stowed on the platform vessel thought to be the M/V Carryback *drifts away.*

the incident concluded as follows:

1. The casualty was caused by the ignition of explosive vapors due to welding on an equalizing line between crude oil storage tanks on the platform. Contributory causes were failure to gas free or inert the tanks before the work began, and improper supervision in allowing welding operations on a line leading to gaseous tanks.

2. The casualty might have been prevented had the crude oil storage tanks been gas-freed or inerted before welding was commenced or had the repairs been accomplished by means other than welding. The tanks apparently were not drained or emptied because it was felt to be impracticable. A barge to transport the crude oil was not readily available or economically feasible, and the location of the drain lines some distance from the bottom would leave some oil in the tanks.

The effects of the casualty might have been reduced had adequate lifesaving devices been provided on the platform and readily accessible. The standby vessel was not effective for lifesaving in this case due to immediate fire damage.

3. There is evidence that the following statutes have been violated:

a. 46 U.S.C. 404—the M/V *Carryback*, carrying freight and passengers for hire, was navigated without a certificate of inspection.

b. 46 U.S.C. 672—the M/V *Carryback* was permitted to depart from a port in the United States without 65 per centum of her deck crew being of a rating not less than able seaman.

c. 46 U.S.C. 643—All seamen employed on the M/V *Carryback* did not hold and exhibit merchant mariner's documents. * * *

4. There is evidence of meritorious action on the part of Edward A. Holdgraf, the operator of the *Princess Patsy*, who took the vessel into the area of the fire underneath the platform to rescue 15 survivors. There is also evidence of meritorious action by James Scanlan and John Bertrand, employees of Chapman Contracting Service Co., Inc, who left the relative safety of the M/V *Princess Patsy* and entered the water to assist in the rescue of fellow workers. * * *

RECOMMENDATIONS

1. That the regulations be amended to require that Coast Guard approved life preservers be provided in easily accessible places for all persons on an offshore platform. Existing regulations require life preservers on unmanned platforms only while crews are working continuously on a 24-hour basis.

2. That operations such as welding and flame cutting on platforms be prohibited in hazardous locations adjacent to tanks or lines containing explosive vapors and in other locations where there is danger of ignition of explosive gases.

3. That further investigation under the Administrative Penalty Procedures be initiated regarding the evidence of violations of laws concerning manning and inspection of the M/V *Carryback*.

The Commandant of the Coast Guard took action as follows:

1. Appropriate action is being taken to suitably recognize those persons who demonstrated meritorious and heroic conduct during the period following the explosion and fire.

2. The evidence that the M/V *Carryback* was in violation of statutes prohibiting carriage of cargo and passengers for hire without a certificate of inspection and for improper manning is being referred to the Commander, Eighth Coast Guard District, for appropriate action

under the administrative penalty provisions.

3. The recommendation to require lifesaving devices on offshore platforms for each person on board is being processed as a proposed regulation under the administrative rulemaking procedure prescribed by statute.

4. The recommendation that operations such as welding and flame cutting on platforms be prohibited in hazardous locations relates to drilling and production and will be forwarded to the Geological Survey of the Department of Interior for evaluation and possible incorporation into their regulations.

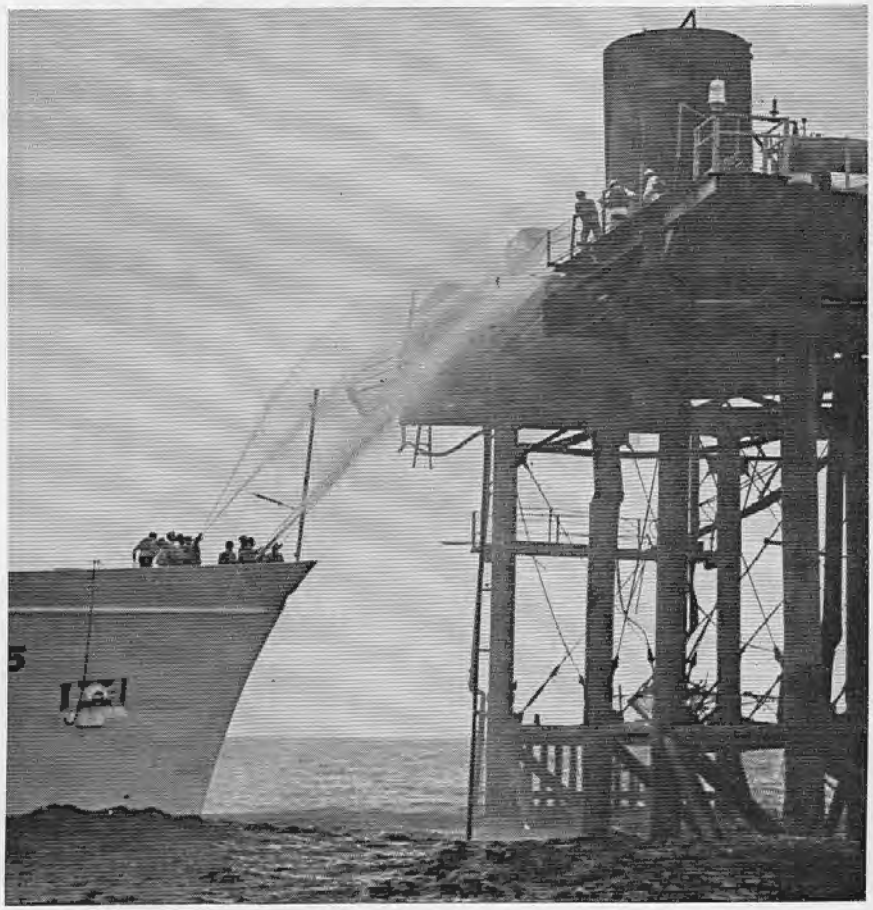
The National Transportation Safety Board determined that the proximate cause of the casualty was "the ignition of explosive vapors by arc-welding on an equalizing line between nongas-free crude oil storage tanks. Contributing causal factors were: lack of adequate supervision; lack of mandatory safety precautions; and divided responsibility for the work. Loss of life might have been reduced if lifesaving devices had been provided on the platform for the workmen."

In reaching the above conclusions, the NTSB noted several earlier fires on offshore structures resulting in 15 deaths, 31 injuries, and extensive property and ecological damage. The Geological Survey of the Department of Interior, the U.S. Army Corps of Engineers, and the U.S. Coast Guard all have statutory authority to regulate offshore operations and structures. Yet these agencies have fragmented areas of concern, and many aspects of the operations are left to the discretion of the operators. The National Offshore Operations Industry Advisory Committee, an industry advisory group to the Coast Guard's Marine Safety Council, makes recommendations concerning Coast Guard safety regulations for offshore structures. The Offshore Committee published the "Manual of Safe Practices in Offshore Operations," on November 27, 1967. The "Manual" is not currently in print. These safe practices are recommended for voluntary compliance. Section V of the "Manual of Safe Practices in Offshore Operations" emphasizes that welding on tanks or connecting pipes should not be started until authorized by the "Person in Charge" and until an inspection has been made to ascertain that the tanks or piping are thoroughly cleaned and gas free. This practice was violated. Other violations of recommended safe practices noted included: wearing of lifejackets by all platform workers is recommended, and these men were not wearing them; the southeast ladder had defective rungs and handrails; combustible materials were scattered around the upper level of the platform. These violations led the NTSB to question whether mandatory regulations promulgated by the Coast Guard or by the Geological Survey would reduce the probability of recurrences of such casualties. "This casualty, as well as the other previously mentioned cases, poses some doubt as to the effectiveness of voluntary safe practices in preventing accidents," the NTSB reports.

These considerations led the NTSB, while concurring with recommendations No. 1 and No. 2 of the Marine Board of Investigation, to recommend that the Department of the Interior and the Department of Transportation:

1. Evaluate their present regulations governing fixed and mobile offshore drilling and production structures operating under Federal jurisdiction; and based on an analysis of casualty data, determine whether revisions or additions are needed to prevent recurrences of similar casualties.

2. Consider the implementation of an effective enforcement program of present and revised regulations, including additional personnel and equipment required for such a program.



Crewmembers of a Coast Guard Cutter pour water on the still hot platform on the day after the explosions as firefighting personnel look on.

The pleasure craft Princess Patsy, *operated by Mr. Edward Holdgraf, witnessed the explosions and fire and approached the platform from the windward. Holdgraf's meritorious action in rescuing 15 survivors was cited by the Coast Guard Marine Board of Investigation.*

The M/V Carryback *is shown gutted and scorched moored at Galveston, Tex. where she was towed after the casualty.*

The explosions and fires on the Chambers and Kennedy Offshore Oil Platform and their results point once again to the fact that where hazards exist, precautions must be taken. Safety can never be termed "voluntary." Exercise of precautions is mandatory to prevent death and destruction.

NOTE: The above article is based upon the Marine Casualty Report of the incident, comprised of the U.S. Coast Guard Marine Board of Investigation Report and Commandant's Action and the Action by National Transportation Safety Board released Oct. 7, 1971. Copies of the Marine Casualty Report may be obtained by writing U.S. Coast Guard (MVI–3/83), 400 Seventh Street SW., Washington, D.C. 20590. ⚓

Latest Merchant Vessels of the United States Now Available

The 1970 issue of "Merchant Vessels of the United States" (CG–408), a Coast Guard publication, has been published recently. The volume contains the names of all American merchant vessels and yachts having uncanceled marine documents (registers, enrollments and licenses, or licenses) on January 1, 1970. The "Monthly Supplement" to "Merchant Vessels of the United States" provides additions, certain changes, and removals to update the volume. The Coast Guard expects to make a 1971 issue of the publication available by early 1972.

"Merchant Vessels of the United States" is sold by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, at a cost of $13.00. The "Monthly Supplement" may be obtained directly by subscription from the U.S. Coast Guard (MVD–2/82), 400 Seventh Street S.W., Washington, D.C. 20590, at a cost of $5 per year. ⚓

RULES OF THE ROAD WESTERN RIVERS

Q. When approaching a bend in the river where, due to a high bank or trees, you cannot see if a vessel is coming the other way, you should:

(a) Reduce speed to bare steerageway until you round the bend.

(b) Stay as far right as possible until the bend has been negotiated.

(c) Sound three blasts and listen for a reply.

(d) Sound the proper signal for the direction of the turn and proceed at normal speed.

A. (c) Sound three blasts and listen for a reply.

Q. In a narrow channel, the vessel under which of the below conditions has the right-of-way?

(a) Up bound.
(b) Down bound.
(c) First entered.
(d) Most heavily laden.

A. (b) Down bound.

Q. While underway in fog up river, you hear two distinct taps on a bell; this would be:

(a) A vessel lying to on the bank on *your* port side.
(b) A vessel at anchor.
(c) A vessel aground.
(d) A vessel lying to on the bank on *your* starboard side.

A. (d) A vessel lying to on the bank on *your* starboard side.

Q. Two amber lights in a vertical line indicate:

(a) The discharge end of a dredge pipeline.
(b) A steam vessel towing by pushing ahead.
(c) A steam vessel with a tow astern.
(d) A stationary dredge.

A. (b) A steam vessel towing by pushing ahead.

Q. A vessel displaying a red flag is:

(a) Aground.
(b) In distress.
(c) Transferring dangerous cargo.
(d) Anchored.

A. (c) Transferring dangerous cargo.

TOWING

Q. A tow hook is used to:

(a) Provide quick release of the hawser.
(b) "Gaff-on" a tow when coming alongside.
(c) Attach a hawser to a tow which has no bitts or padeyes.
(d) Join two hawsers for lengthening a tow.

A. (a) Provide quick release of the hawser.

Q. The main reason for sluicing wire rope is to:

(a) Prevent rust.
(b) Protect fairleads.
(c) Reduce internal friction.
(d) Avoid the use of chaffing gear.

A. (c) Reduce internal friction.

Q. In a tow make-up, the fishplate:

(a) Connects the hawser to the bridle.
(b) Connects the bridle to the tow.
(c) Keeps the hawser amidships on the tug.
(d) Is the capping piece on the H bitt.

A. (a) Connects the hawser to the bridle.

Q. When securing a wire to a bitt, a round turn should be taken nearest the pull first to avoid:

(a) Kinks.
(b) Jumping the bitt.
(c) Overriding turns.
(d) Parbuckling the bitt.

A. (d) Parbuckling the bitt.

Q. A gob rope is used to:

(a) Secure the bow pudding.
(b) Transfer stores.
(c) Hold a hawser amidships.
(d) Release the tow hook.

A. (c) Hold a hawser amidships.

Q. The biggest problem generally encountered while towing a single tow is:

(a) Hawser size.
(b) The bridle.
(c) Speed.
(d) Yaw.

A. (d) Yaw.

Q. In the northern hemisphere, the "dangerous semicircle" of a hurricane in relation to its track is:

(a) The right side.
(b) The left side.
(c) The front.
(d) The back.

A. (a) The right side.

Q. Except for the effects of "minimum pip size," range accuracy of a radar set:

(a) Depends on the weather.
(b) Is decreased with distance.
(c) Is increased with distance.
(d) Is the same for all ranges.
(e) Is not reliable.

A. (d) Is the same for all ranges.

Q. What factor contributes most to the prevention of fire aboard your vessel?

(a) Location and amount of fire fighting equipment.
(b) Cleanliness and ventilation of all compartments.
(c) Training and ability of crew.
(d) Type and quality of boat construction.

A. (b) Cleanliness and ventilation of all compartments.

ANNUAL STATISTICS OF CASUALTIES

Annually the U.S. Coast Guard releases to the public a statistical summary of casualties involving commercial vessels. This year the following brief explanation of the statistics is given in an attempt to make them more meaningful.

Casualties involving commercial vessels are required to be reported to the Coast Guard whenever the casualty results in the following:

(*a*) Actual physical damage to property in excess of $1,500.

(*b*) Material damage affecting the seaworthiness or efficiency of a vessel.

(*c*) Stranding or grounding.

(*d*) Loss of life.

(*e*) Injury causing any persons to remain incapacitated for a period in excess of 72 hours; except injury to harbor workers not resulting in death and not resulting from vessel casualty or vessel equipment casualty.

The statistical summary represents casualties to commercial vessels which meet the above criteria. It is important to note that the summary represents casualties reported to Coast Guard Headquarters in fiscal year 1971.

This statistical tabulation is intended to summarize the casualty experience for the entire commercial fleet. Because this summary is so all-encompassing, the use of the statistics may lead to erroneous conclusions unless the limitations of the data are well understood.

Since the limitations are dependent upon the parameters of a problem, the below listed office will gladly assist in quantifying those limitations for each specific need.

To better serve the public's pursuit of safety, the Coast Guard would like to change the presentation of data to serve the widest possible spectrum of maritime interests. Persons who have used this data in safety programs, educational pursuits, business management, and those who could use this information if presented in a different form are requested to forward their recommendations for changes to: U.S. Coast Guard (MIS/83), 400 Seventh Street SW., Washington, D.C. 20590.

STATISTICAL SUMMARY OF CASUALTIES TO COMMERCIAL VESSELS[1]

1 July 1970 to 30 June 1971
Fiscal year 1971

Nature of casualty

	Collisions; crossing, meeting and overtaking	Collisions, while anchored, docking, or undocking	Collision, fog	Collisions with piers and bridges	Collisions, all others	Explosion and/or fires—cargo	Explosion and/or fires—vessel's fuel	Explosion and/or fire—boilers, pressure vessel	Explosion and/or fire—structure, equipment, all others	Grounding with damage	Grounding without damage	Founderings, capsizings, and floodings	Heavy weather damage	Cargo damage	Material failure—structure and equipment	Material failure—machinery and engineering equipment	Casualty not otherwise classified	Total
Number of casualties	190	175	41	433	280	16	23	9	128	372	232	92	35	27	347	144	33	2,577
Number of vessels involved	616	475	106	733	419	16	23	9	141	488	310	128	36	32	411	148	52	4,152
Number of inspected vessels involved	187	151	32	269	171	12	1	7	32	143	146	16	4	25	173	116	13	1,498
Number of uninspected vessels involved	429	324	74	464	248	4	22	2	109	345	173	112	32	7	238	32	39	2,654
PRIMARY CAUSE	Number of vessels																	
Personnel fault:																		
Pilots—State	7	8	12	9	9	------	------	------	------	3	23	1	------	------	2	------	1	75
Pilots—Federal	31	24	9	66	13	------	------	------	1	28	21	2	------	1	------	------	1	197
Licensed officer—documented seaman	47	18	21	72	21	2	1	1	7	54	23	4	------	2	7	------	3	283
Unlicensed—undocumented persons	140	49	20	123	49	1	5	------	11	22	13	22	1	1	9	2	6	604
All others	30	33	6	17	17	3	2	------	9	9	15	5	1	2	13	------	4	166
Calculated risk	------	------	------	4	2	------	------	------	------	3	------	------	------	------	1	------	------	10
Restricted maneuvering room	1	------	------	6	4	------	------	------	------	4	6	------	------	------	------	------	1	22
Storms—adverse weather	1	20	1	59	18	1	------	------	------	84	25	21	32	20	82	3	3	370
Unusual currents	------	------	------	15	1	------	------	------	------	2	------	1	------	------	------	------	------	19
Sheer, suction, bank cushion	1	------	------	1	------	------	------	------	------	1	1	------	------	------	------	------	------	4
Depth of water less than expected	------	------	------	3	1	------	------	------	------	10	36	------	------	------	------	------	------	50
Failure of equipment	12	32	------	33	15	1	8	8	31	41	25	15	------	1	162	139	1	524
Unseaworthy—lack of maintenance	------	1	------	------	2	1	------	------	4	2	------	10	1	------	59	------	1	81
Floating debris—submerged object	------	------	------	8	132	------	------	------	1	3	1	1	------	------	5	------	------	151
Inadequate tug assistance	2	2	------	6	------	------	------	------	------	------	4	------	------	------	------	------	------	14
Fault on part of other vessel or person	343	288	36	307	129	------	------	------	11	118	94	30	1	5	55	4	14	1,435
Unknown—insufficient information	1	------	1	4	6	7	7	------	66	4	2	16	------	------	16	------	17	147

See footnotes at end of table

STATISTICAL SUMMARY OF CASUALTIES TO COMMERCIAL VESSELS—Continued [1]

1 July 1970 to 30 June 1971 Fiscal year 1971	Nature of casualty																
	Collisions; crossing, meeting and overtaking	Collisions, while anchored, docking, or undocking	Collision, fog	Collisions with piers and bridges	Collisions, all others	Explosion and/or fires—cargo	Explosion and/or fires—vessel's fuel	Explosion and/or fire—boilers, pressure vessel	Explosion and/or fire—structure, equipment, all others	Grounding with damage	Grounding without damage	Foundering, capsizings, and floodings	Heavy weather damage	Cargo damage	Material failure—structure and equipment	Material failure—machinery and engineering equipment	Casualty not otherwise classified	Total
TYPE OF VESSEL																		
Inspected vessels:																		
Passenger and ferry—large	2	4	-----	10	3	-----	-----	1	1	3	2	-----	-----	-----	3	5	-----	34
Passenger and ferry—small	4	11	5	7	10	-----	1	-----	1	16	5	5	-----	-----	9	4	6	84
Freight	20	59	6	88	59	11	-----	3	13	25	46	1	2	22	86	78	2	521
Cargo barge	8	8	3	16	9	-----	-----	-----	1	15	5	3	-----	1	9	-----	-----	78
Tankships	10	17	3	27	25	-----	-----	1	2	21	34	1	2	1	28	21	-----	193
Tank barge	134	36	15	110	52	1	-----	-----	11	56	44	6	-----	1	24	3	4	497
Public	2	10	-----	2	3	-----	-----	1	-----	2	4	-----	-----	-----	5	4	1	34
Miscellaneous	7	6	-----	9	10	-----	-----	1	3	5	6	-----	-----	-----	9	1	-----	57
Uninspected vessels:																		
Fishing	51	42	10	28	72	-----	13	-----	54	168	33	32	26	-----	94	21	5	649
Tugs	213	105	22	270	109	-----	5	1	25	107	67	37	2	3	56	7	12	1,041
Foreign	37	51	21	35	21	3	1	1	5	13	40	1	-----	2	8	-----	1	240
Cargo barge	76	58	11	109	18	-----	-----	-----	3	38	21	27	2	2	39	1	14	419
Miscellaneous	52	68	10	22	28	1	3	-----	22	-----	12	15	2	-----	41	3	7	305
GROSS TONNAGE																		
300 tons or less	291	235	50	282	218	-----	19	1	93	294	109	92	29	3	192	33	26	1,967
Over 300 to 1,000 tons	156	64	17	191	63	1	2	2	12	83	34	27	3	3	64	4	21	747
Over 1,000 to 10,000 tons	144	107	19	194	91	12	-----	5	31	80	98	7	1	9	78	63	5	944
Over 10,000 tons	25	69	20	66	47	3	2	1	5	31	78	2	3	17	77	48	-----	494
LENGTH																		
Less than 100 feet	256	212	35	240	184	-----	17	1	86	265	93	80	28	2	160	31	25	1,724
100 to less than 300 feet	297	127	44	332	134	2	4	3	33	162	90	44	4	5	112	15	24	1,432
300 to less than 500 feet	32	57	7	57	31	8	-----	4	14	22	50	1	1	7	38	36	3	368
500 feet and over	31	79	20	104	70	6	2	1	8	39	86	3	3	18	92	66	-----	628
AGE																		
Less than 10 years	270	171	52	274	150	6	6	1	38	185	121	44	19	14	106	45	21	1,523
10 to less than 20 years	192	137	33	234	118	3	6	1	43	137	89	43	11	2	117	22	16	1,204
20 to less than 30 years	100	96	12	125	85	7	7	4	36	76	69	29	5	13	111	62	12	849
30 years and over	54	71	9	100	66	-----	4	3	24	90	40	12	1	3	77	19	3	576
LOCATION OF CASUALTY	Number of casualties																	
Inland—Atlantic	27	35	7	80	58	1	6	3	30	85	94	9	1	2	42	15	6	501
Inland—Gulf	96	40	18	136	82	3	4	2	30	120	70	32	27	1	68	3	8	746
Inland—Pacific	9	26	3	40	34	3	6	-----	16	57	20	15	-----	1	35	14	5	284
Ocean—Atlantic	6	-----	4	-----	13	3	1	-----	4	10	6	7	3	8	45	32	3	145
Ocean—Gulf	10	8	1	7	22	-----	-----	2	15	14	7	5	1	-----	26	15	1	134
Ocean—Pacific	11	2	-----	1	19	1	3	-----	9	23	4	7	-----	13	48	33	-----	174
Great Lakes	4	12	-----	67	25	-----	2	1	1	16	9	3	-----	-----	20	17	1	178
Western rivers	22	15	7	87	11	1	1	1	13	31	11	13	2	1	39	3	8	266
Ocean—other	-----	4	-----	2	6	1	-----	-----	1	6	-----	1	-----	1	7	4	-----	33
Foreign waters	5	27	1	13	10	3	-----	-----	9	10	11	-----	1	-----	17	8	1	116
TIME OF DAY																		
Daylight	90	97	12	272	153	6	17	6	66	185	114	60	31	18	222	84	19	1,455
Nighttime	94	68	26	142	114	9	5	3	55	163	109	25	4	7	108	51	13	996
Twilight	6	10	3	19	13	1	1	-----	7	24	9	4	-----	2	17	9	1	126
ESTIMATED LOSSES																		
Vessel	4,830	3,406	1,499	4,462	7,078	90	4,669	137	20,908	9,870	10	2,960	461	38	15,222	2,959	362	78,961
Cargo	154	3	79	727	169	891	1	-----	683	777	1	693	16	344	2,057	18	16	6,629
Property	101	371	3	6,171	691	10	21	-----	166	1,155	-----	63	6	21	82	4	46	8,911
VESSELS TOTALLY LOST																		
Inspected	-----	-----	1	-----	2	-----	-----	-----	-----	3	-----	2	-----	-----	3	1	-----	12
Uninspected	18	9	4	13	35	-----	13	-----	53	79	-----	34	6	-----	82	3	5	354

[1] Statistics concerning recreation and pleasure boating accidents are published in CG–357.

449–076—71——2

STATISTICAL SUMMARY OF DEATHS/INJURIES DUE TO A VESSEL CASUALTY

1 July 1970 to 30 June 1971

Fiscal year 1971

	Nature of casualty																	
	Collision; crossing, meeting and overtaking	Collision, while anchored, docking, or undocking	Collision, fog	Collisions with piers and bridges	Collisions, all others	Explosion and/or fires—cargo	Explosion and/or fires—Vessel's fuel	Explosion and/or fire—Boilers, pressure vessel	Explosion and/or fire—structure, equipment, all others	Grounding with damage	Grounding without damage	Founderings, capsizings, and floodings	Heavy weather damage	Cargo damage	Material failure—structure and equipment	Material failure—Machinery and engineering equipment	Casualty not otherwise classified	Total
Number of casualties	17	3	6	9	9	1	11	3	29	9	------	24	1	------	29	2	6	159
Number of inspected vessels involved	/9	------	1/1	/8	27/1	1/	/1	/2	10/16	------	------	1/	------	------	35/2	/1	2/2	77/43
Number of uninspected vessels involved	15/12	2/1	1/6	4/7	8/3	------	9/27	2/2	33/31	17/4	------	46/3	/1	------	22/12	3/9	4/2	166/120
Number of persons deceased/injured	15/21	2/1	2/7	4/15	35/4	1/	9/28	2/4	43/47	17/4	------	47/3	/1	------	57/14	3/10	6/4	243/163
PRIMARY CAUSE																		
Personnel fault:																		
Pilots—State	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Pilots—Federal	------	------	------	1	------	------	------	------	1	------	------	------	------	------	------	------	------	2
Licensed officer—documented seaman	5	------	3	1	1	------	1	------	1	1	------	1	------	------	1	------	------	15
Unlicensed—undocumented persons	4	1	1	2	3	1	4	------	2	3	------	8	------	------	2	------	1	32
All others	6	1	1	------	------	------	------	------	5	1	------	------	------	------	1	------	2	17
Calculated risk	------	------	------	------	------	------	------	------	------	------	------	------	------	------	1	------	------	1
Restricted maneuvering room	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Storms—adverse weather	------	------	1	------	------	------	------	------	------	3	------	3	------	------	1	------	------	8
Unusual currents	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Sheer, suction, bank cushion	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Depth of water less than expected	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Failure of equipment	1	1	------	2	1	------	2	3	8	------	------	1	------	------	17	2	------	38
Unseaworthy—lack of maintenance	------	------	------	------	1	------	------	------	------	------	------	2	1	------	3	------	1	8
Floating debris—submerged object	------	------	------	------	2	------	------	------	1	------	------	1	------	------	------	------	------	4
Inadequate tug assistance	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Fault on part of other vessel or person	1	------	------	2	1	------	------	------	5	------	------	1	------	------	1	------	------	11
Unknown—insufficient information	------	------	------	1	------	------	4	------	6	1	------	7	------	------	2	------	2	23
TYPE OF VESSEL INVOLVED																		
Inspected vessels:																		
Passenger and ferry—large	------	------	------	/1	------	------	------	------	------	------	------	------	------	------	------	------	------	/1
Passenger and ferry—small	/2	------	1/1	/7	27/1	1/	/1	------	------	------	------	------	------	------	1/	------	2/	32/12
Freight	/7	------	------	------	------	------	------	/1	/1	------	------	------	------	------	2/1	/1	/2	2/13
Cargo barge	------	------	------	------	------	------	------	------	------	------	------	1/	------	------	------	------	------	1/
Tankships	------	------	------	------	------	------	------	------	------	------	------	------	------	------	31/	------	------	31/
Tank barges	------	------	------	------	------	------	------	------	2/	------	------	------	------	------	/1	------	------	2/1
Public:																		
Miscellaneous	------	------	------	------	------	------	------	/1	8/15	------	------	------	------	------	1/	------	------	9/16
Uninspected vessels:																		
Fishing	1/1	------	------	1/	8/2	------	1/5	/2	5/2	16/2	------	27/2	------	------	12/5	------	3/	74/21
Tugs	3/3	1/1	1/1	3/3	------	------	/4	------	4/4	/1	------	6/	------	------	1/1	------	/2	19/20
Foreign	1/1	------	------	------	------	------	------	2/	2/1	/1	------	------	------	------	1/5	------	------	6/8
Miscellaneous	10/7	1/	/5	/4	/1	------	8/18	------	22/24	1/	------	13/1	/1	------	8/1	3/9	1/	67/71
PARTICULARS OF PERSON DECEASED/INJURED																		
Papers of deceased/injured:																		
Licensed by Coast Guard	1/	/1	------	2/2	------	------	------	------	4/1	------	------	2/	------	------	7/	------	------	16/4
Documented by Coast Guard	/8	------	------	------	------	------	/1	/1	2/3	------	------	2/	/1	------	25/	/1	------	29/15
No license or document	13/12	2/	2/7	2/13	35/4	1/	9/27	/3	29/27	17/4	------	43/3	------	------	24/14	3/9	6/4	186/127
Other—unknown—foreign	1/1	------	------	------	------	------	------	2/	8/16	------	------	------	------	------	1/	------	------	12/17
Status or capacity on vessel:																		
Passenger	6/5	1/	1/4	/11	------	1/	5/12	/1	3/2	7/1	------	6/	------	------	2/5	------	2/	34/41
Longshoreman—Harborworker	------	------	------	------	------	------	4/4	------	1/3	------	------	------	------	------	1/1	------	/2	6/10
Crewmember	9/14	1/1	1/3	4/4	10/3	------	/11	2/3	21/27	10/3	------	37/2	/1	------	51/8	/1	4/2	150/83
Other	/2	------	------	------	25/1	------	/1	------	18/15	------	------	4/1	------	------	3/	3/9	------	53/29
Activity engaged in:																		
Off duty	1/9	------	1/1	2/1	3/1	------	/2	------	7/12	3/	------	8/1	------	------	------	------	------	25/27
Deck department duties	3/5	------	/2	1/3	1/	------	/4	------	5/8	4/2	------	7/	/1	------	26/4	------	1/2	48/31
Engine department duties	------	/1	------	------	/1	------	/1	1/2	4/7	------	------	------	------	------	10/	/1	------	15/13
Stewards department duties	------	------	------	1/	------	------	------	1/	1/2	------	------	1/	------	------	5/	------	------	9/2
Handling cargo	------	------	------	------	------	------	------	------	------	------	------	------	------	------	1/1	------	------	1/1
Fishing	1/	1/	------	------	7/	------	------	------	1/	3/	------	22/2	------	------	7/4	------	3/	45/6
Drills	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Passenger	6/5	------	1/4	/11	------	1/	5/12	/1	3/2	7/1	------	6/	------	------	2/5	------	------	31/41
Other and unknown	4/2	1/	------	------	24/2	------	4/9	/1	22/16	/1	------	3/	------	------	6/	3/9	2/2	69/42
Location of vessel:																		
At dock	------	------	1/1	------	------	------	8/25	2/3	16/16	------	------	------	------	------	4/2	------	2/2	33/49
At anchor	------	1/	------	/1	------	------	------	/1	24/26	/1	------	4/1	------	------	4/5	3/9	------	36/44
Underway	15/21	1/1	1/6	4/15	35/3	1/	1/3	------	3/5	17/3	------	43/2	/1	------	49/7	/1	4/2	174/70
Unknown	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
PART OF BODY INVOLVED																		
Head and upper limbs	/4	------	/1	/4	1/	------	/2	------	/6	------	------	1/	/1	------	5/3	/1	/1	7/23
Back and lower limbs	/4	/1	/2	/2	/2	------	/2	------	1/4	/2	------	/1	------	------	/2	------	/1	1/23
Multiple injuries (internal and external)	2/13	------	/4	/9	/2	------	4/24	/4	5/37	/2	------	3/2	------	------	4/9	/9	/2	18/117
Death—heart	------	------	------	1/	------	------	------	------	1/	------	------	------	------	------	------	------	------	2/
Death—drowning	12/1	1/	1/	3/	34/	1/	1/	------	3/	15/	------	41/	------	------	46/	------	6/	164/
Death—disease, other	1/	1/	1/	------	------	------	4/	2/	33/	2/	------	2/	------	------	2/	3/	------	51/

[1] Statistics concerning recreation and pleasure boating accidents are published in CG—357.

STATISTICAL SUMMARY OF DEATHS ON BOARD COMMERCIAL VESSELS [1]

(Not Involving a Vessel Casualty)

1 July 1970 to 30 June 1971
Fiscal year 1971

Total	CAUSE OF DEATH	Nature of death																						
		Natural cause	Homicide	Suicide	Disappearance	Slips and falls—ladders	Slips and falls—gangways	Slips and falls—on deck	Slips and falls—other	Falls from vessel—into water	Falls into holds or tanks	Struck by objects: falling, dropped, or moving	Exposure and asphyxiation	Struck against, crushed, bumped into objects	Operating machinery and tools	Burns and scalds (other than electrical)	Electrical shock and burns	Caught in lines, chains, or wire ropes	Pinching and crushing	Heavy weather	Overexertion, sprains and strains	Cuts, lacerations, bruises, and punctures	Altercations and misconduct	Unknown or insufficient information
12	Intoxication	1		1		1	1			7			1											
159	Physical deficiency or handicap	153				1				4			1											
15	Unsafe movement or posture					1				12	2													
23	Psychological-immaturity, insanity		4	13						15									1					
45	Unsafe practice						1		5	14	3	9	8		1			1	2					1
1	Violation of law or regulation		1																					
33	Human errors					1			2	18	3	6			1	1		1						
7	Decks—slippery or cluttered								1	5	1													
9	Weather conditions									7		1		1										
	Poor maintenance or housekeeping																							
5	Inadequate lighting									2	3													
8	Inadequate rails or guards						1			7														
20	Failure of equipment					1				6		9	2					1	1					
6	Inadequate supervision									1	1	3												1
1	Inadequate life preservers									1														
1	Inadequate tools or equipment																	1						
2	Inadequate protective equipment								1	1														
1	Improper use of tools or equipment											1												
31	Miscellaneous causes			1					1	24			2											3
	TYPES OF VESSELS INVOLVED																							
	Inspected vessels:																							
26	Passenger and ferry—large	22		2						3									1					
24	Passenger and ferry—small	20				1				2														1
109	Freight ships and barges	55	3	10		2			3	18	5	8	2	1										2
44	Tankships and barges	20		1		2	1		1	10	1	2	5											1
3	Public	1								1	1													
14	Miscellaneous	6								3		3						1						1
	Uninspected vessels:																							
58	Fishing	13		1						37			5					2						
36	Tugs	10	1	1						20	1	1	1		1									
21	Foreign	3	1				2		1	5	2	5				1			1					
52	Miscellaneous	4							5	25	3	10	1		1			1	2					
	TIME OF DAY																							
242	Daytime	92	2	12		2	1		7	70	10	22	10	1	1	1		4	2					4
132	Nighttime	56	1	1		3	2		3	49	3	6	4		1				2					1
15	Twilight	6	2	2						5														
	PARTICULARS OF DECEASED																							
	Papers of deceased:																							
59	Licensed by Coast Guard	36		5		1	1			11	3	1	1											
97	Documented by Coast Guard	54	3	6		1	1		1	21	4	3	1	1										1
228	No license or document	63	2	4		3	1		9	91	6	23	12		2			4	4					4
5	Other—unknown—foreign	1								1		2				1								
	Status or capacity on vessel:																							
59	Passenger	43		2		1	1			10			1											1
28	Longshoreman—harbor worker	2	1			1			2	4	2	8	5						2					1
261	Crewmember	105	3	13		2	2		3	86	9	13	7	1	1			4	1					1
51	Other	4	1			1			5	24	2	8	1		1	1			1					2
	Activity engaged in:																							
123	Off duty	64	2	10			3			42			2											
73	Deck department duties	15	1	2					3	30	6	10	2	1	1			1	1					
32	Engine department duties	18				1				6	4	1	1					1						
9	Stewards department duties	6	1			1				1														
23	Handling cargo	1							1	1	1	12	4						2					1
41	Fishing	20		1						18								2						
0	Drills																							
41	Passenger	27		2		1				9			1											1
47	Other and unknown	3	1			2			6	17	2	6	4		1	1			1					3
	Location of vessel:																							
100	At dock	27	4	3		3	3		6	20	6	15	9		1	1			2					
82	At anchor	19		2					3	34	1	12	3					2	2					4
207	Underway	108	1	10		2			1	70	6	2	2	1	1			2						1
	PART OF BODY INVOLVED																							
45	Head and upper limbs	1	3	5		4	1		3	1	8	16		1	1				1					
1	Back and lower limbs											1												
25	Multiple injuries (int. and ext.)	1	1				2		3	1	3	8			1			2	1					2
146	Death—heart	143								1	1													1
134	Death—drowning	3		5		1			1	121								1						2
38	Death—diseases, other	6	1	5					3		1	4	14			1		1	2					

[1] Statistics concerning recreation and pleasure boating accidents are published in CG-357.

STATISTICAL SUMMARY OF PERSONNEL INJURIES ON BOARD COMMERCIAL VESSEL

(Not Involving a Vessel Casualty)

1 July 1970 to 30 June 1971
Fiscal year 1971

Totals		Nature of injury: Slips and falls—ladders	Slips and falls—gangways	Slips and falls—on deck	Slips and falls—other	Falls from vessel—into water	Falls into holds or tanks	Struck by objects; falling, dropped or moving	Exposure and asphyxiation	Struck against, crushed, bumped into objects	Operating machinery and tools	Burns and scalds (other than electrical)	Electrical shock and burns	Caught in lines, chains or wire ropes	Pinching and crushing	Heavy weather	Overexertion sprains and strains	Cuts, lacerations, bruises and punctures	Altercations and misconduct	Unknown of insufficient information
	CAUSE OF INJURY																			
49	Intoxication	8	3	2	11	1	----	1	----	3	----	1	----	----	2	----	3	3	11	----
44	Physical deficiency or handicap	5	1	4	6	----	----	----	----	3	----	----	----	----	----	----	19	----	----	6
172	Unsafe movement or posture	16	2	10	23	2	4	5	----	13	----	1	----	4	8	1	77	3	1	2
58	Psychological-immaturity, insanity	1	----	1	1	----	----	----	----	----	----	----	----	----	----	----	1	4	49	1
191	Unsafe practice	14	3	4	22	----	4	51	4	9	4	18	3	11	13	4	17	7	----	3
5	Violation of law or regulation	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	4	----
755	Human errors	120	12	90	121	5	8	95	4	57	13	22	2	34	77	2	41	38	3	11
32	Decks—slippery or cluttered	2	----	16	12	----	----	----	----	----	----	----	----	----	----	----	1	1	----	----
55	Weather conditions	1	----	9	5	2	----	11	----	9	----	----	----	2	5	8	----	2	----	1
16	Poor maintenance or housekeeping	1	----	3	4	----	----	5	----	2	----	1	----	----	----	----	----	----	----	----
2	Inadequate lighting	----	----	----	1	----	----	1	----	----	----	----	----	----	----	----	----	----	----	----
2	Inadequate rails or guards	----	----	----	1	----	----	1	----	----	----	----	----	----	----	----	----	----	----	----
56	Failure of equipment	2	----	----	----	1	1	33	----	1	----	5	1	4	1	1	2	3	----	1
12	Inadequate supervision	1	----	----	2	----	----	1	3	----	----	2	----	2	----	----	1	----	----	----
	Inadequate life preservers:																			
4	Inadequate tools or equipment	----	----	----	1	----	----	3	----	----	----	----	----	----	----	----	----	1	----	----
14	Inadequate protective equipment	2	----	2	3	----	----	3	----	----	1	2	----	----	----	----	----	----	----	----
18	Improper use of tools or equipment	1	----	1	2	----	----	3	3	2	1	2	----	1	----	----	1	----	----	1
31	Miscellaneous causes	1	----	----	----	1	----	6	1	2	1	10	----	1	1	2	2	----	----	3
	TYPES OF VESSELS INVOLVED																			
	Inspected Vessels:																			
63	Passenger and Ferry—large	3	----	13	12	1	----	7	----	2	1	----	1	3	6	----	6	4	2	2
25	Passenger and Ferry—small	3	----	5	7	----	----	2	----	1	----	----	----	1	1	----	1	4	----	----
1087	Freight ships and barges	127	20	99	156	4	11	140	6	81	16	44	4	31	78	15	132	45	59	19
146	Tankships and barges	31	1	16	22	----	1	17	5	7	1	10	----	1	8	2	12	5	5	2
14	Public	4	----	1	2	----	----	2	----	2	----	----	----	----	1	----	----	----	2	----
27	Miscellaneous	1	----	----	1	1	----	9	----	1	----	5	----	3	2	----	4	----	----	----
	Uninspected Vessels:																			
53	Fishing	2	----	4	4	1	2	14	2	2	1	----	----	11	3	----	2	2	----	3
66	Tugs	3	----	3	7	4	1	14	----	5	----	4	----	6	7	----	8	2	----	2
10	Foreign	2	----	1	1	----	----	4	----	----	----	----	----	1	----	----	----	----	----	1
25	Miscellaneous	----	----	----	3	1	2	10	2	----	1	1	1	2	1	1	----	----	----	----
	TIME OF DAY																			
1040	Daytime	118	9	93	140	7	7	150	12	74	18	45	4	42	78	12	132	46	32	21
405	Nighttime	53	11	45	70	5	8	57	3	19	2	15	2	11	26	3	24	11	34	6
71	Twilight	5	1	4	5	----	2	12	----	8	----	4	----	6	3	3	9	5	2	2
	PARTICULARS OF PERSON INJURED																			
	Papers of person injured:																			
251	Licensed by Coast Guard	30	5	21	32	2	1	34	4	17	10	17	2	7	13	4	22	9	18	3
1084	Documented by Coast Guard	134	16	109	161	6	10	140	7	78	7	38	4	31	80	13	134	44	50	22
181	No license or document	12	----	12	22	4	6	45	4	6	3	9	----	21	14	1	9	9	----	4
0	Other—unknown—Foreign	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	Status or capacity on vessel:																			
32	Passenger	3	----	5	10	1	----	4	----	1	----	----	----	1	1	----	1	5	----	----
12	Longshoreman—harbor worker	----	----	1	2	----	----	4	2	----	----	1	----	1	----	----	----	1	----	----
1430	Crewmember	172	21	136	201	10	16	194	12	100	19	59	6	51	103	17	163	56	68	26
42	Other	1	----	----	2	1	1	17	1	----	1	4	----	6	3	3	1	----	----	3
	Activity engaged in:																			
274	Off duty	52	16	22	39	3	3	16	1	12	----	6	1	3	17	5	21	17	34	6
573	Deck department duties	55	2	53	86	5	10	126	8	35	3	9	----	33	44	9	70	16	5	4
383	Engine department duties	47	3	29	44	1	2	43	3	36	16	34	5	12	24	2	48	14	15	4
185	Stewards department duties	16	----	29	31	----	----	9	----	15	----	8	----	1	16	1	24	8	14	13
12	Handling cargo	1	----	1	----	----	----	5	2	----	----	1	----	----	1	----	----	1	----	----
23	Fishing	----	----	2	4	----	----	6	----	----	1	----	----	5	----	----	1	2	----	2
7	Drills	----	----	2	2	----	----	----	----	2	----	----	----	----	1	----	----	1	----	----
24	Passenger	3	----	3	7	1	----	4	----	1	----	----	----	----	1	----	1	3	----	----
36	Other and unknown	2	----	1	2	2	2	10	1	----	----	6	----	5	3	1	----	1	----	----
	Location of vessel:																			
491	At dock	59	18	30	74	3	3	76	7	28	7	17	2	22	30	----	52	17	37	9
240	At anchor	23	3	17	24	4	----	48	3	15	3	15	----	13	17	2	28	11	9	5
785	Underway	94	----	95	117	5	14	95	5	58	10	32	4	24	60	16	85	34	22	15

See footnote at end of table.

STATISTICAL SUMMARY OF PERSONNEL INJURIES ON BOARD COMMERCIAL VESSELS[1]—Continued

(Not Involving a Vessel Casualty)

1 July 1970 to 30 June 1971 Fiscal year 1971	Nature of injury: Slips and falls—ladders	Slips and falls—gangways	Slips and falls—on deck	Slips and falls—other	Falls from vessel—into water	Falls into holds or tanks	Struck by objects; falling, dropped or moving	Exposure and asphyxiation	Struck against, crushed, bumped into objects	Operating machinery and tools	Burns and scalds (other than electrical)	Electrical shock and burns	Caught in lines, chains or wire ropes	Pinching and crushing	Heavy weather	Overexertion sprains and strains	Cuts, lacerations, bruises and punctures	Altercations and misconduct	Unknown or insufficient information
Part of Body Injured:																			
94 Head and neck	9	3	9	18	----	2	23	1	15	----	----	----	2	----	1	1	----	11	1
70 Eye and face	4	----	2	1	----	----	25	7	4	1	9	----	----	----	----	----	2	10	3
105 Arm and shoulder	20	----	12	10	----	2	13	----	11	----	5	----	2	6	3	9	3	8	1
299 Hand	15	1	11	22	----	1	19	----	20	17	15	3	39	85	----	2	33	7	9
208 Leg and hip	24	2	26	38	5	3	38	----	21	----	5	1	6	4	2	19	8	5	1
242 Feet	29	9	19	37	1	----	61	----	12	2	8	1	7	10	2	26	12	1	5
199 Back	28	2	29	27	1	1	8	----	3	----	----	----	----	2	4	91	----	3	----
23 Body—external	2	----	3	6	----	2	1	----	1	----	4	1	----	----	----	----	----	2	1
75 Body—internal	12	----	8	18	2	----	10	3	8	----	----	----	2	----	2	5	----	2	3
13 Hernia	----	----	3	2	----	----	----	----	----	----	----	----	----	----	----	7	----	----	1
169 Multiple body injuries	31	3	19	32	3	6	21	----	6	----	18	----	1	----	4	3	4	17	1
19 All other injuries	2	1	1	4	----	----	----	4	----	----	----	----	----	----	----	2	----	2	3
ADDITIONAL CONTRIBUTING FACTORS TO CAUSE OF INJURY																			
602 Human element	76	13	41	69	5	9	62	----	50	6	21	3	30	30	2	95	25	59	6
112 Decks—slippery or cluttered	15	----	45	39	----	1	1	----	3	----	----	----	----	----	1	5	2	----	----
98 Weather conditions	10	1	12	15	----	3	18	----	2	----	1	----	3	15	10	3	3	----	2
43 Poor maintenance or housekeeping	5	----	12	9	----	----	6	----	4	----	1	----	----	----	----	1	5	----	----
15 Inadequate lighting	4	----	2	5	----	2	1	----	1	----	----	----	----	----	----	----	----	----	----
21 Inadequate rails or guards	1	1	----	8	----	2	----	----	1	----	----	----	3	4	----	----	1	----	----
32 Failure of equipment	2	----	----	1	----	----	17	----	2	----	2	1	1	1	----	2	2	----	1
80 Inadequate supervision	----	----	2	12	1	1	29	1	6	5	6	----	7	8	----	8	3	----	----
21 Inadequate tools or equipment	1	----	----	6	----	----	3	1	2	----	----	----	----	2	----	4	1	----	1
54 Inadequate protective equipment	3	----	6	9	----	1	14	6	2	----	2	----	1	2	----	----	7	----	1
61 Improper use of tools or equipment	6	----	2	7	----	----	14	3	3	8	3	----	5	3	----	2	3	----	2
23 Causes not otherwise classified	2	----	----	4	----	----	4	----	3	----	----	----	----	----	2	3	2	2	2
15 Hull structure	3	----	4	2	----	----	2	----	1	----	----	----	----	3	----	----	----	----	----
29 Holds, hatches, tanks	4	----	----	5	----	4	----	5	----	----	2	----	----	7	----	1	1	----	----
27 Ladders, gangways, stairs	15	2	----	3	1	----	2	1	1	----	----	----	1	1	----	----	----	----	----
23 Masts, booms, cargo gear	2	----	----	5	----	----	8	----	----	1	----	----	2	5	----	----	----	----	----
21 Watertight closures	1	----	4	1	----	----	2	----	3	----	----	----	----	10	----	----	----	----	----
32 Living spaces	7	----	2	11	----	----	4	----	1	----	1	----	----	2	1	1	1	1	----
13 Fishing equipment	----	----	1	----	----	----	6	----	----	----	----	----	3	1	----	1	1	----	----
8 Navigational equipment	1	----	3	2	1	----	----	----	----	----	----	----	----	----	----	1	----	----	----
8 Lifesaving equipment	----	----	----	2	----	----	2	----	2	----	----	----	----	----	----	----	2	----	----
3 Firefighting equipment	----	----	1	----	----	----	----	----	2	----	----	----	----	----	----	----	----	----	----
Communications equipment	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Yard Repairs:																			
46 Improper loading, stowage and ventilation	4	----	6	11	----	----	6	2	1	----	1	----	1	4	----	5	4	----	1
5 Ground tackle	----	----	----	2	----	----	3	----	----	----	----	----	----	----	----	----	----	----	----
23 Tugs and towing equipment	----	----	----	----	1	----	14	----	----	----	----	----	5	1	----	2	----	----	----
32 Mooring equipment	----	----	1	2	----	----	19	----	----	1	----	----	4	3	----	2	----	----	----
22 Miscellaneous deck department equipment	1	----	1	3	----	----	6	----	----	----	3	----	2	3	----	2	1	----	----
6 Main propulsion machinery	----	----	----	----	----	----	3	----	2	----	1	----	----	----	----	----	----	----	----
23 Boiler parts and accessories	----	----	1	1	----	----	1	----	2	----	14	----	1	----	----	3	----	----	----
36 Auxiliary machinery	1	----	1	12	----	1	2	----	4	2	4	1	----	5	----	3	----	----	----
7 Electrical equipment	1	----	----	----	----	----	1	----	----	1	----	2	----	1	----	1	----	----	----
34 Galley equipment	4	----	3	6	----	----	2	----	3	----	2	----	----	3	----	2	2	----	7

[1] Statistics concerning recreation and pleasure boating accidents are published in CG–357.

	Notice of proposed rulemaking	Public hearing	Deadline for comments	Awaiting MSC recommendation	Approved by MSC awaiting final action	MSC recommended withdrawal	Withdrawal date	Published as rule	Effective date
1971 PUBLIC HEARING									
PH 1–71 Personnel and manning of vessels (subchapters B, K, and P):									
1a Authorization to serve as pilot of vessels	2/24/71	3/29/71	5/15/71		X				
1b Apprentice engineer training for license as third assistant engineer	2/24/71	3/29/71	5/15/71		X				
1c Fee for duplicate merchant mariners documents	2/24/71	3/29/71	5/15/71		X				
1d Able seamen	2/24/71	3/29/71	5/15/71			X			
1e Suspension and revocation procedure	2/24/71	3/29/71	5/15/71			X			
PH 2–71 Marine engineering (subchapters F, Q, and T):									
2a Miscellaneous changes									
2b Aluminum fuel tanks									
PH 3–71 Subdivision and stability (subchapters D and I)	2/24/71	3/29/71	3/29/71			X	4/10/71		
PH 4–71 Portable tanks for combustible liquids on cargo and miscellaneous vessels (subchapter I)	2/24/71	3/29/71	5/15/71		X			9/30/71	10/30/71
PH 5–71 Electrical (subchapter D, J, and T):									
5a Definitions, clarifications, and Manuals	2/24/71	3/29/71	5/15/71		X				
5b Insulation materials	2/24/71	3/29/71	5/15/71		X				
5c Requirements for Underwriters' Laboratories, Inc., listing or labeling	2/24/71	3/29/71	5/15/71		X				
5d Impressed cathodic protection systems on tank vessels	2/24/71	3/29/71	5/15/71		X				
5e Explosionproof equipment on tank vessels	2/24/71	3/29/71	5/15/71		X				
5f General alarm systems for barges	2/24/71	3/29/71	5/15/71		X				
5g Wiring on small passenger vessels	2/24/71	3/29/71	5/15/71		X				
PH 6–71 Bulk dangerous cargoes (subchapters D and O)	2/24/71	3/29/71	5/15/71		X				
PH 7–71 Lifesaving equipment (subchapters D, H, I, J, Q, O, and U):									
7a Ring life buoys and waterlights	2/24/71	3/29/71	5/15/71		X				
7b Additional lifepreservers on passenger vessels	2/24/71	3/29/71	5/15/71		X				
7c Illumination of lifesaving launching areas	2/24/71	3/29/71	5/15/71		X				
PH 8–71 Specification:									
8a Lifeboat winches	2/24/71	3/29/71	5/15/71		X				
8b Lifeboats	2/24/71	3/29/71	5/15/71		X				
8c Line-throwing appliances	2/24/71	3/29/71	5/15/71		X				
8d Inflatable liferafts	2/24/71	3/29/71	5/15/71		X				
PH 9–71 Fibrous glass-reinforced plastic construction of small passenger vessels	2/24/71	3/29/71	5/15/71		X				
* * * * *									
Winter loadlines (Great Lakes)	8/7/71	None	9/15/71		X			10/1/71	10/30/71
Safety zones (offshore structures)	7/17/71	None	8/20/71		X			10/7/71	1/7/72

See footnote at end of table.

	Notice of proposed rulemaking	Public hearing	Deadline for comments	Awaiting MSC recommendation	Approved by MSC awaiting final action	MSC recommended withdrawal	Withdrawal date	Published as rule	Effective date
* * * * *									
Hazardous materials:									
Corrosive liquids	5/26/71	8/10/71	8/17/71		X				
Pentaerythrite tetranitrate containers	5/26/71	8/10/71	8/17/71		X				
Bromine containers	5/26/71	8/10/71	8/17/71		X				
Hydrochloric acid and sodium chlorite solution containers	5/26/71	8/10/71	8/17/71		X				
Chromic acid solutions	5/25/71	8/10/71	8/17/71		X				
Refrigerant gas containers	5/25/71	8/10/71	8/17/71		X				
Chlorpricin containers	5/25/71	8/10/71	8/17/71		X				
Boron tribromide transportation	5/27/71	8/10/71	8/17/71	X					
Flammable liquid containers	5/27/71	8/10/71	8/17/71		X				
Radioactive materials	7/9/71	8/24/71	8/31/71	X					
Cold compressed gases	10/16/71	1/11/72	1/18/72	X					

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

AVOIDING FALLS REQUIRES CARE

The recent edition of ACCIDENT FACTS, the annual statistics roundup of the National Safety Council, points out that 19,000 persons die every year in falls. That's 94 persons for every 100,000 of the population.

ACCIDENT FACTS quotes reports from the state labor departments showing that one-fifth of all compensable work injuries result from falls, each costing an average of more than $1,000. Fatal falls account for more than one-sixth (17.4 percent) of all fatal compensation cases, at an average cost to industry of $3,000.

Falls are most prevalent in the cold, icy season. The U.S. Postal Service estimated that 46.5 percent of its falls are caused by ice and snow. Of all ice and snow falls, 45.2 percent occur in January, 22.7 percent in February, and 9.5 percent in March.

Incidentally, falls by postal employees cost $1,400,000 annually. How much do falls cost your company?

Ice and snow are not the only fall

causes. Crowded and busy working conditions and cluttered walkways play a large part too. Carelessness in walking increases the hazards. As a supervisor, you should help reduce the fall potential in your shop.

First, eliminate hazardous physical conditions around the plant. See to it that snow and ice are promptly removed from the sidewalks. Make sure that handrails and stairs are adequate. Constantly watch for oil spills and other slicks that can cause foot slipping.

Keep an eye out for tripping hazards, such as scrap on the floor, broken floors, loose wires or cables, protruding parts, pallets, and litter in walkways. Examine all door openings for possible problems.

Promote a continuing reminder campaign on falls. Remind workers to be careful when carrying objects so that they can still see where they are going. Curiously enough, workers become so at ease in shop situations that they quite often walk backwards while talking to fellow workers—and the result is often a nasty fall. Warn them against walking backwards. Let posters remind them to hold the handrail when using the stairs. Tell them to use both hands for climbing. Do not permit running on plant premises.

We all think we know how to walk safely, but we tend to forget the hazards of the shop environment. We need reminders. ⚓

—The Supervisor
Kemper Insurance

AMENDMENTS TO REGULATIONS

Lights for Great Lakes Pilot Vessels

There have been inquiries concerning the requirements for Lights for Great Lakes Pilot Vessels. 33 CFR 201.20 contains these requirements and is printed below. It will be included under Part 201, General Regulations in the next printing of the Coast Guard pamphlets Rules of the Road—Great Lakes (CG–172) and Rules of the Road–Western Rivers (CG–184)

§ 201.20 Lights for Great Lakes pilot vessels

(a) A power driven pilot vessel when engaged on pilotage duty and under way:

(1) Shall carry a white light at the masthead at a height of not less than 20 feet above the hull, visible all around the horizon at a distance of at least 3 miles and at a distance of 8 feet below it a red light similar in construction and character. If such vessel is of less than 65 feet in length the vessel may carry the white light at a height of not less than 9 feet above the gunwale and the red light at a distance of 4 feet below the white light.

(2) Shall carry the sidelights prescribed by Great Lakes Rule 3 (33 U.S.C. 252) or by the Act of April 25, 1940 (46 U.S.C. 526b), as appropriate, and a white light at the stern showing an unbroken light over and arc of the horizon of 135°, so fixed as to show the light 67½° from right aft on each side of the vessel, and of such a character as to be visible at a distance of at least 2 miles.

(3) Shall show one or more flareup lights at intervals not exceeding 10 minutes. An intermittent white light visible all around the horizon may be used in lieu of flareup lights.

(b) A sailing pilot vessel when engaged on pilotage duty and under way:

(1) Shall carry a white light at the masthead visible all around the horizon at a distance of at least 3 miles.

(2) Shall be provided with the sidelights prescribed in paragraph (a) (2) of this section or the portable lanterns prescribed by Great Lakes Rule 8 (33 U.S.C. 257), as appropriate, and shall, on the near approach of or to other vessels, have such lights ready for use, and shall show them at short intervals to indicate the direction in which the pilot vessel is heading, but the green light shall not be shown on the port side nor the red light on the starboard side. The vessel shall also carry the stern light prescribed in paragraph (a) (2) of this section.

(3) Shall show one or more flareup lights at intervals not exceeding 10 minutes.

(c) A pilot vessel when engaged on pilotage duty and not under way shall carry the lights and show the flares prescribed in paragraphs (a) (1) and (3) or (b) (1) and (3) of this section, as appropriate, and if at anchor shall also carry the anchor lights prescribed in Great Lakes Rule 9 (33 U.S.C. 258).

(d) A pilot vessel when not engaged on pilotage duty shall show the lights or shapes for a similar vessel of the same length.

[32 F.R. 3057, Feb. 18, 1967]

Approved Equipment

Commandant Issues Equipment Approvals; Terminates Others

U.S. Coast Guard approval was granted to certain items of lifesaving, and other miscellaneous equipment and materials. At the same time the Coast Guard terminated certain items of lifesaving, and other miscellaneous equipment and materials.

Those interested in these approvals and terminations should consult the Federal Registers of September 24, 30, and October 7, 14, 19 and 30, 1971, for detailed itemization and identification.

Title 46 Changes

Chapter I—Coast Guard, Department of Transportation

SUBCHAPTER E—LOAD LINES

PART 45—MERCHANT VESSELS WHEN ENGAGED IN A VOYAGE ON THE GREAT LAKES

Winter Freeboard

This amendment reduces the required winter freeboard in the load line regulations for steamers over 440 feet in length on a Great Lakes voyage.

Interested persons were afforded an opportunity to participate in the making of this rule. This amendment was published in the Federal Register as a notice of proposed rule making (CGFR 71–82) on August 18, 1971 (36 F.R. 15761).

While there was favorable response to the proposed lowering of winter freeboards, two persons submitting comments recommended using the same factor for winter freeboards that is presently used for intermediate freeboards. One of the comments pointed out that the difference between the intermediate and winter freeboard under the proposal for a 550-foot vessel with a summer draft of 25 feet would be only 1¼ inches. Another comment made similar observations. The Coast Guard however feels compelled to adopt its proposed rule because of an understanding reached by the Working Group of the United States/Canadian Joint Technical Committee for Great Lakes Load Lines.

The proposal is, however, modified to allow the winter load line to be marked on the vessel so that it extends from the vertical line toward the diamond. This change is made so that the intermediate and winter load line marks may be distinguished. The Coast Guard finds that notice and public proceedings on this change are impractical and contrary to the public interest. The basis for this determination is the need to have the regulation in effect before the Great Lakes' winter season begins on November 1.

The Coast Guard is considering establishing only two seasonal load lines for the larger vessels on the Great Lakes. The experience gained from this rule will be used in that determination.

Accordingly, Part 45 of Title 46, Code of Federal Regulations is amended as follows:

1. By revising the heading and paragraph (a) of § 45.15–100 to read as follows:

§ 45.15–100 Reduced basic minimum freeboards for steamers on Great Lakes voyages.

(a) A reduced freeboard may be computed for each steamer over 440 feet in length on a Great Lakes voyage for the summer, midsummer and intermediate season using the lesser tabular values prescribed by Table 45.15–100(a) and for the winter season using a factor of 0.50 in the formula prescribed by § 45.15–95 if the vessel complies with—

(1) The conditions of assignment prescribed by Subpart 45.10; and

(2) The additional requirements prescribed by paragraph (b) of this section.

* * * * *

2. By adding to paragraph (a) of § 45.05–15 the following:

§ 45.05–15 Lines to be used in connection with the diamond.

(a) * * * When the separation between the intermediate and winter load lines for steamers over 400 feet in length is insufficient to allow two separate marks to be clearly drawn and distinguished, the winter load line may extend from the vertical line toward the diamond.

* * * * *

(Sec. 2, 49 Stat. 888, as amended, sec. 6(b)(1), 80 Stat. 937; 6 U.S.C. 88a, 49 U.S.C. 1655(b)(1); 49 CFR 1.46(b))

Effective date. This amendment is effective on October 31, 1971.

Dated: September 24, 1971.

T. R. SARGENT,
Vice Admiral, U.S. Coast Guard,
Acting Commandant.

[FR Doc.71–14465 Filed 9–30–71; 8:50am]

(Federal Register of October 1, 1971.)

Title 33 Changes

Chapter I—Coast Guard, Department of Transportation

SUBCHAPTER N—ARTIFICIAL ISLANDS AND FIXED STRUCTURES ON THE OUTER CONTINENTAL SHELF

PART 147—SAFETY ZONES

The purpose of these amendments is to delegate to district commanders the authority: (1) To establish safety zones around artificial islands and fixed structures on the Outer Continental Shelf and at their construction sites for the purpose of promoting the safety of life and property on the islands and structures, their appurtenances, and attending vessels, and on the waters within the safety

zones; (2) to issue and enforce reasonable regulations for these purposes; and (3) to take appropriate measures in the safety zones for the protection of the living resources of the sea from harmful agents. The regulations also prescribe the procedures for establishing safety zones and the regulations relating to them. The criminal sanction provided by 43 U.S.C. 1333(e)(2) referred to in 33 CFR 140.20–5 for violation of regulations in Subchapter N applies to any regulations promulgated by the district commander under this authority.

In a notice of proposed rule making, 36 F.R. 13274, the Coast Guard proposed to add a new Part 147 to Subchapter N of Title 33 of the Code of Federal Regulations to accomplish the foregoing purposes. Eleven commentators submitted comments on the proposed rules. Five commentators supported the proposed regulations or their intent although in some cases the support was conditioned by specific recommendations discussed below. One commentator opposed the proposal in toto on both legal and policy grounds. The remaining commentators expressed no opinion as to the advisability of the regulations but made recommendations discussed below.

It was recommended that, in addition to "sea lanes," "shipping safety fairways" and "anchorage areas" be included in proposed § 147.03–5 where it provides that safety zones shall not interfere with "recognized sea lanes essential to navigation." The concern was expressed (1) that the term "sea lanes" is limited to those portions of traffic separation schemes where unidirectional traffic is recommended and (2) that express provision is required to assure that shipping safety fairways and anchorage areas on the Outer Continental Shelf in the Gulf of Mexico would not be interfered with by the establishment of safety zones.

The term "recognized sea lanes essential to navigation" in § 147.03–5 is adopted from the similar provision in paragraph 5 of Article 5 of the 1958 Convention on the Continental Shelf relating to "international" navigation. (It should be noted that the absence of the word "international" in the regulation in fact makes it more restrictive than the Convention.) While the term "sea lane" is used in conjunction with traffic separation schemes, the terminology utilized in § 147.03–5 is generic and includes shipping safety fairways as well as other essential ship routing areas. The addition of specific terms relating to circumstances in the Gulf and other areas where fairways have been established would tend to derogate from the broad meaning of the term used in the regulation. If the term "shipping safety fairways" was added to "recognized sea lanes" the implication might be drawn that the latter term referred only to areas subject to a traffic separation scheme. The intent of the regulations is to follow the constraint imposed by the Convention on the Continental Shelf that the establishment of safety zones may not interfere with any recognized sea lane essential to navigation be it traffic separation scheme, fairway, or ntherwise. Therefore, the term "shipping safety fairways" is not included in the regulations although fairways are within the scope of the limitation. It should be noted in this context that a given safety zone and the regulations issued to apply within it may affect a portion of a sea lane so long as they do not interfere with navigation within it.

The recommendation that "anchorage areas" be included in this section is also rejected for the reason that should such an area be located within 500 meters of an artificial island, fixed structure, or construction site it may well be necessary to promulgate safety zone regulations with regard to activities conducted within it in order to promote the safety of life and property on the installation or site or on the adjacent waters.

A number of commentators suggested that there should be a specific provision in the regulations permitting owners, operators or interested government agencies to request the establishment of a safety zone. Section 147.03–1 as written provides an adequate basis for these parties and others to bring the relevant matters to the attention of the district commander in order that he may determine whether a safety zone should be established.

Some confusion was expressed as to the size and configuration of the safety zones. The 500 meter distance provided for in § 147.03–5 relates to the maximum radial extent of the zones measured from a construction site or the outer edge of an artificial island or fixed structure. The regulation has been modified to clarify this point.

Similar confusion was noted regarding the length of time that a safety zone might be in effect. Section 147.03–3 again provides the maximum time period during which the zone may be established and continued. This section contemplates that a safety zone may be established any time after the construction equipment and materials for an artificial island or fixed structure enter within 500 meters of the construction site until the island or structure has been entirely removed. Similarly a safety zone may continue in effect from the time of its establishment until the island or structure has been entirely removed at which time it would automatically terminate if not sooner terminated by the district commander.

Comments were made regarding the scope of the delegation to the district commander and the nature of the regulations which may be adopted by him to apply within a safety zone. Since the regulations for each zone will be subjected to public comment prior to their promulgation (except in emergency situations where public comment will be solicited immediately following the establishment of the zone) there will be full opportunity to air the district commander's proposed exercise of authority in each case as it arises to assure that it is in

conformity with 33 CFR Part 147. Moreover, since the safety zones will be established on an individual basis, activities which will be regulated in any given zone and the extent to which they will be regulated will have to be individually determined at the time by the district commander in order to meet the contingencies existing at the particular safety zone site.

Concern was expressed that measures to protect the living resources of the sea from harmful agents adopted pursuant to § 147.01–1 might conflict with regulations issued by other governmental agencies, specifically those published in 30 CFR Part 250. It should be noted that the particular section in this part which relates to the discharge of harmful agents, 30 CFR 250.43, imposes responsibility and liability on a lessee only. The establishment of safety zones carries with it the obligation to "undertake, in the safety zones, all appropriate measures for the protection of the living resources of the sea from harmful agents", paragraph 7, Article 5 of the Convention on the Continental Shelf. In utilizing safety zones to carry out its responsibilities under the Outer Continental Shelf Lands Act the Coast Guard must be guided by this obligation which has been undertaken by the United States. Accordingly, these measures must apply to all persons and activities within the safety zones. Any possible conflict between the measures undertaken pursuant to this regulation and 30 CFR Part 250 is dealt with in the last sentence of § 147.01–1 which excludes certain activities from the delegated regulatory authority.

One commentator to § 143.03–3 (b) recommended that explicit provision be made to require publication of emergency safety zones in Notices to Mariners. This suggestion has been adopted to eliminate any uncertainty. It was the intention in drafting the proposed regulations to indicate that in certain emergency circumstances it may be appropriate and effective to utilize other methods of public notice. In every case, emergency or otherwise, where international or domestic shipping is involved information regarding safety zones will be published in Notices to Mariners, and, if appropriate, on navigational charts.

An editorial error appeared in the notice of proposed rule making—the inclusion of § 147.03–7 *Prohibited activities* in the index. Since the regulations do not include such a section this item has been deleted from the index.

Accordingly, in consideration of the foregoing, the Coast Guard hereby amends Subchapter N of Title 33 CFR by adding a new Part 147, to be effective on January 7, 1972.

The complete text of these changes was published in the "Federal Register" of October 7, 1971.

Title 49—Transportation

Subtitle A—Office of the Secretary of Transportation

[OST Docket No. 1; Amdt. 1–51]

PART 1—ORGANIZATION AND DELEGATION OF POWERS AND DUTIES

Delegation of Authority With Respect to Boating Safety and Bridge-to-Bridge Radiotelephones

The purpose of this amendment is to delegate to the Commandant of the Coast Guard authority vested in the Secretary by two recently enacted statutes, the Federal Boat Safety Act of 1971 and the Vessel Bridge-to-Bridge Radiotelephone Act.

Since this amendment relates to Departmental management, procedures, and practices, notice and public procedure thereon is unnecessary and it may be made effective in less than 30 days after publication in the FEDERAL REGISTER.

In consideration of the foregoing, § 1.46 of Part 1 of Title 49, Code of Federal Regulations, is amended effective October 5, 1971, by adding new paragraph (o) to read as follows:

§ 1.46 Delegations to Commandant of the Coast Guard

* * * * *

(o) Carry out the responsibilities and exercise the authority vested in the Secretary by the following Statutes:

(1) Federal Boat Safety Act of 1971 (85 Stat. 213).

(2) Vessel Bridge-to-Bridge Radiotelephone Act (85 Stat. 164).

(Secs. 3(e), 9(e), Department of Transportation Act, 49 U.S.C. 1652(e), 1657(e))

Issued in Washington, D.C., on October 5, 1971.

JOHN A. VOLPE,
Secretary of Transportation.

[FR Doc.71–14791 Filed 10–7–71; 8:50 am]

(Federal Register of October 8, 1971.)

AFFIDAVIT

The following affidavits were accepted during the period from September 15 to October 15, 1971:

Kepner Products Co., 7321 West 59th St., Box 407, Summit, Ill. 60501, VALVES.

Techno Corp., 2709 West 10th St., P.O. Box 1416, Erie Pa. 16512, VALVES.

Barksdale, Division of DeLaval Turbine 5125 Alcoa Ave., Los Angeles, Calif. 90058, HYDRAULIC COMPONENTS: MANIPULATOR VALVE, (ALUMINUM), 6922M3H03–MC–H, 3000 PSI.

Present Listing:

United States Rubber Co.,[67] 1700 K St., N.W. Washington, D.C. 20002, FITTINGS.

To Be Changed To:

Uniroyal Industrial Products,[67] Division of Uniroyal, Inc., 1 Market St., P.O. Box 719 Passaic, N.J. 07055, fittings

[67] Affidavit covers SV - * - 2128 valves only.

[67] Affidavit covers rubber expansion joints only, limited to Class II piping and a maximum temperature of 180°F.

MERCHANT MARINE SAFETY PUBLICATIONS

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

The Federal Register will be furnished by mail to subscribers, free of postage, for $2.50 per month or $25 per year, payable in advance. The charge for individual copies is 20 cents for each issue, or 20 cents for each group of pages as actually bound. Remit check or money order, made payable to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Regulations for Dangerous Cargoes, 46 CFR 146 and 147 (Subchapter N), dated January 1, 1971 are now available from the Superintendent of Documents price: $3.75.

CG No.	TITLE OF PUBLICATION
101	Specimen Examination for Merchant Marine Deck Officers (7–1–63).
108	Rules and Regulations for Military Explosives and Hazardous Munitions (5–1–68). F.R. 6–7–68, 2–12–69, 10–29–69.
115	Marine Engineering Regulations (7–1–70). F.R. 12–30–70.
123	Rules and Regulations for Tank Vessels (5–1–69). F.R. 10–29–69, 2–25–70, 6–17–70, 10–31–70, 12–30–70.
129	Proceedings of the Marine Safety Council (Monthly).
169	Rules of the Road—International—Inland (9–1–65). F.R. 12–8–65, 12–22–65, 2–5–66, 3–15–66, 7–30–66, 8–2–66, 9–7–66, 10–22–66, 5–11–67, 12–23–67, 6–4–68, 10–29–69, 11–29–69, 4–3–71.
172	Rules of the Road—Great Lakes (9–1–66). F.R. 2–18–67, 7–4–69, 8–4–70.
174	A Manual for the Safe Handling of Inflammable and Combustible Liquids (3–2–64).
175	Manual for Lifeboatmen, Able Seamen, and Qualified Members of Engine Department (3–1–65).
176	Load Line Regulations (2–1–71) F.R. 10–1–71.
182	Specimen Examinations for Merchant Marine Engineer Licenses (7–1–63).
184	Rules of the Road—Western Rivers (9–1–66). F.R. 9–7–66, 2–18–67, 5–11–67, 12–23–67, 6–4–68, 11–29–69, 4–3–71.
190	Equipment Lists (8–1–70). F.R. 8–15–70, 9–29–70, 9–24–71, 9–30–71, 10–7–71, 10–14–71, 10–19–71, 10–30–71.
191	Rules and Regulations for Licensing and Certificating of Merchant Marine Personnel (5–1–68). F.R. 11–28–68, 4–30–70, 6–17–70, 12–30–70, 6–17–71.
200	Marine Investigation Regulations and Suspension and Revocation Proceedings (5–1–67). F.R. 3–30–68, 4–30–70, 10–20–70.
220	Specimen Examination Questions for Licenses as Master, Mate, and Pilot of Central Western Rivers Vessels (4–1–57).
227	Laws Governing Marine Inspection (3–1–65).
239	Security of Vessels and Waterfront Facilities (5–1–68). F.R. 10–29–69, 5–15–70, 9–11–70, 1–20–71, 4–1–71, 8–24–71.
249	Marine Safety Council Public Hearing Agenda (Annually).
256	Rules and Regulations for Passenger Vessels (5–1–69). F.R. 10–29–69, 2–25–70, 4–30–70, 6–17–70, 10–31–70, 12–30–70.
257	Rules and Regulations for Cargo and Miscellaneous Vessels (8–1–69). F.R. 10–29–69, 2–25–70, 4–22–70, 4–30–70, 6–17–70, 10–31–70, 12–30–70, 9–30–71.
258	Rules and Regulations for Uninspected Vessels (5–1–70).
259	Electrical Engineering Regulations (3–1–67). F.R. 12–20–67, 12–27–67, 1–27–68, 4–12–68, 12–18–68, 12–28–68, 10–29–69, 2–25–70, 4–30–70, 12–30–70.
266	Rules and Regulations for Bulk Grain Cargoes (5–1–68). F.R. 12–4–69.
268	Rules and Regulations for Manning of Vessels (5–1–67). F.R. 4–12–68, 4–30–70, 12–30–70.
293	Miscellaneous Electrical Equipment List (9–3–68).
320	Rules and Regulations for Artificial Islands and Fixed Structures on the Outer Continental Shelf (11–1–68). F.R. 12–17–68, 10–29–69, 1–20–71, 8–24–71, 10–7–71.
323	Rules and Regulations for Small Passenger Vessels (Under 100 Gross Tons) (7–1–69). F.R. 10–29–69, 2–25–70, 4–30–70, 10–31–70, 12–30–70.
329	Fire Fighting Manual for Tank Vessels (7–1–68).

CHANGES PUBLISHED DURING OCTOBER 1971

The following have been modified by Federal Registers:

CG–176, Federal Register October 1, 1971.

CG–190 and CG–320 Federal Register October 7, 1971.

CG–190, Federal Registers October 14, 19 and 30, 1971

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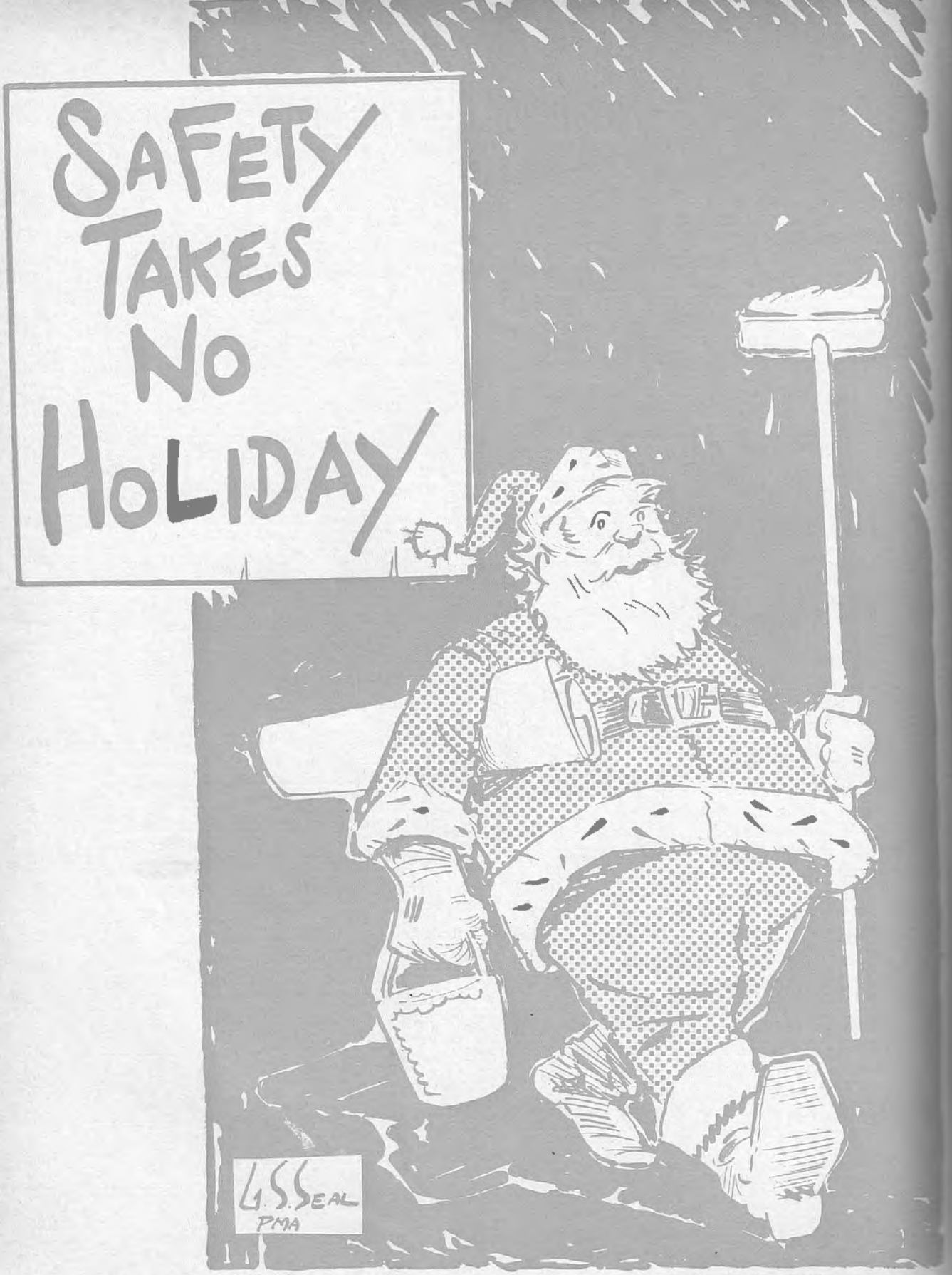
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