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92-86 LICENSING OF PERSONNEL ON CERTAIN VESSELS

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HEARING BEFORE THE MERCHANT MARINE SUBCOMMITTEE OF THE COMMITTEE ON COMMERCE UNITED STATES SENATE NINETY-SECOND CONGRESS

SECOND SESSION

ON

H.R. 6479

TO PROVIDE FOR THE LICENSING OF PERSONNEL
ON CERTAIN VESSELS

APRIL 27, 1972

Serial No. 92-86

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For the use of the Committee on Commerce



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LICENSING OF PERSONNEL ON CERTAIN VESSELS

THURSDAY, APRIL 27, 1972

U.S. SENATE,
COMMITTEE ON COMMERCE,
SUBCOMMITTEE ON MERCHANT MARINE,
Washington, D.C.

The subcommittee met, pursuant to notice, at 2:15 p.m., in room 5110, New Senate Office Building, Hon. Russell B. Long (chairman of the subcommittee) presiding.

Present: Senators Long and Cook.

Senator LONG. This hearing will come to order.

Today we take up H.R. 6479, a bill to provide for licensing of personnel on certain vessels.

The bill would require that, while underway, towing vessels be under the control of a person licensed by the Coast Guard to operate in a particular geographic area.

It also requires a study concerning the need for engineers on towing vessels which is to be completed within 10 months.

We have a great many witnesses to hear this afternoon, consequently, we are requesting that each witness limit his oral testimony to a brief summary of his written statement, not to exceed 10 minutes in length.

Likewise, we will be brief in our oral questions and we will submit more detailed written questions later on.

(The bill and agency comments follow:)

Staff member assigned to this hearing: Emanuel Rouvelas.

92^d CONGRESS
1ST SESSION

H. R. 6479

IN THE HOUSE OF REPRESENTATIVES

MARCH 22, 1971

Mr. GARMATZ (for himself, Mr. PELLY, Mrs. SULLIVAN, Mr. MAILLIARD, and Mr. CLARK) introduced the following bill; which was referred to the Committee on Merchant Marine and Fisheries

A BILL

To provide for the licensing of personnel on certain vessels.

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

3 That section 4427 of the Revised Statutes (46 U.S.C. 405)
4 is amended by inserting "(a)" immediately before the first
5 word thereof and by adding at the end thereof the following
6 new subsection:

7 “(b) (1) As used in this subsection—

8 “(A) the term ‘Secretary’ means the Secretary of
9 the department in which the Coast Guard is operating:

10 “(B) the term ‘towing’ means pulling, pushing, or
11 hauling alongside or any combination thereof:

1 “(C) the term ‘towing vessel’ means a commercial
2 vessel engaged in or intended to engage in the service
3 of towing which is twenty-six feet or more in length,
4 measured from end to end over the deck, excluding sheer;

5 “(D) the term ‘uninspected’ means not required by
6 law to have a valid certificate of inspection issued by
7 the Secretary.

8 “(2) An uninspected towing vessel in order to assure
9 safe navigation shall, while underway, be under the actual
10 direction and control of a person licensed by the Secretary to
11 operate in the particular geographic area and by type of
12 vessel under regulations prescribed by him. A person so
13 licensed may not work a vessel while underway or perform
14 other duties in excess of a total of twelve hours in any con-
15 secutive twenty-four-hour period except in case of emer-
16 gency.”

17 SEC. 2. The Secretary of Transportation shall conduct a
18 study concerning the need for engineers on uninspected tow-
19 ing vessels and shall submit to the Congress a report on this
20 study, together with any legislative recommendations not later
21 than ten months after the enactment of this legislation.

22 SEC. 3. The amendments made by the first section of
23 this Act shall become effective on January 1, 1972, or on

1 the first day of the sixth month which begins after the month
 2 in which regulations are first issued under section 4427 (b)
 3 (3) of the Revised Statutes (as added by the first section of
 4 this Act), whichever date is later.

OFFICE OF THE SECRETARY OF TRANSPORTATION,
 Washington, D.C., July 30, 1971.

HON. WARREN G. MAGNUSON,
 Chairman, Committee on Commerce,
 U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: Reference is made to your request for the views of this Department on H.R. 6479, an act to provide for the licensing of personnel on certain vessels. The act would amend R. S. 4427 (46 U.S.C. 405) to require uninspected towing vessels to be under the direction and control of an operator licensed by this Department. The act would also require a Department of Transportation study and subsequent report to the Congress concerning the need for engineers on towboats.

As you are aware, the Department of Transportation has consistently urged and supported legislative efforts over the past several years directed at towing vessel safety. As we have indicated in the past the Coast Guard has for some time been studying ways best suited to achieve greater safety for towing vessels. A significant conclusion which has been reached is that operator licensing would, in our opinion, offer a substantial contribution to marine safety. H.R. 6479 responds precisely to that conclusion. We therefore strongly support H.R. 6479 and urge its enactment.

The Office of Management and Budget advises that from the standpoint of the Administration's program there is no objection to the submission of this report for the consideration of the Committee.

Sincerely,

JOHN W. BARNUM, *General Counsel.*

GENERAL COUNSEL OF THE DEPARTMENT OF COMMERCE,
 Washington, D.C., May 5, 1972.

HON. RUSSELL B. LONG,
 Chairman, Subcommittee on Merchant Marine, Senate Commerce Committee,
 Washington, D.C.

DEAR MR. CHAIRMAN: This is to express the views of this Department with respect to H.R. 6479, a bill to provide for the licensing of personnel on certain vessels. The bill would amend section 4427 of the Revised Statutes (46 U.S.C. 405) to provide that an uninspected towing vessel shall, while underway be under the actual direction of a person licensed under regulations prescribed by the Secretary of the Department in which the Coast Guard is operating. It would further provide that a person so licensed may not work a vessel while underway or perform other duties in excess of a total of 12 hours in any consecutive 24-hour period except in case of emergency. The Secretary would be empowered under the bill to issue regulations governing the licensing of such personnel. The bill defines a towing vessel as a vessel, engaged in or intended to engage in the service of towing, which is more than 26 feet in length.

Section 4427 of the Revised Statutes now provides with respect to officers navigating steam-propelled tugboats, towing vessels and freight boats that such officers must be licensed and be subject to the same provisions of law as officers navigating passenger steamers. Most tugboats and towing vessels, however, are now propelled by diesel power.

Section 2 of the bill would require the Secretary of Transportation to conduct a study concerning the need for engineers on uninspected towing vessels and to submit a report to Congress on this study, together with any legislative recommendations, not later than ten months after enactment of the bill.

With the amendment hereinafter proposed, we recommend enactment of the bill.

The requirement that uninspected towing vessels be under the direction and control of a licensed operator would materially improve the margin of safety for maritime traffic. The President recommended this requirement in his message on Offshore Oil Pollution.

The study and report provided for by section 2 of the bill should reflect the economic impact on towing vessel operations of requiring engineers. This is a matter in which the Department of Commerce has a deep interest. We recommend, therefore, that the bill be amended to provide that the Secretary of Transportation in developing a study and report consult with the Secretary of Commerce.

We have been advised by the Office of Management and Budget that there would be no objection to the submission of this report to the Congress from the standpoint of the Administration's program.

Sincerely,

WILLIAM N. LETSON, *General Counsel.*

Senator LONG. The first witness today will be Rear Adm. W. F. Rea, Chief, Office of Merchant Marine Safety, U.S. Coast Guard, Department of Transportation.

STATEMENT OF REAR ADM. W. F. REA, CHIEF, OFFICE OF MERCHANT MARINE SAFETY, U.S. COAST GUARD, DEPARTMENT OF TRANSPORTATION

Admiral REA. Good afternoon, sir.

I am Rear Adm. W. F. Rea III, Coast Guard Headquarters in Washington.

Mr. Chairman, I appreciate the opportunity to appear here today on H.R. 6479.

The purpose of this bill is to promote safe navigation by requiring that while underway, certain towing vessels shall be under the direction and control of persons licensed under regulations prescribed by the Secretary of the Department in which the Coast Guard is operating.

In addition, the bill requires that the Secretary of Transportation conduct a study and to submit to the Congress a report thereon, together with any legislative recommendations, concerning a need for engineers on such vessels.

Mr. Chairman, there is an urgent need for the bill before you this afternoon.

There are over 5,000 towing vessels operating today with no requirement whatsoever for the operator to be licensed or to demonstrate any evidence of competency.

These vessels often propel a fleet of barges having a carrying capacity equal to a large freighter or tankship, including cargoes having various degrees of hazard.

Their operation is for the most part in highly congested inland waters, and often in close proximity to our cities.

As we have indicated over the years in our appearances before congressional committees, an analysis of available Coast Guard statistics

reveals that a large percentage of the casualties involving uninspected towing vessels resulted from personnel error.

In 1971, 49.6 percent of the recorded casualties involving uninspected towing vessels resulted from personnel fault.

Also, the total casualty trend continues upward, resulting in 41 deaths and over \$20 million in property damage that year.

The very recent chlorine barge incident near Louisville, Ky., represents an excellent example of the type of operation in which the competency of towing vessel operators is of great concern to us.

As you may be aware, this barge, containing 640 tons of liquid chlorine, was swept into a spillway of the McAlpine Dam after the original tow of nine barges broke up as the result of a grounding.

The potential danger of this chlorine barge breaking up and spilling large quantities of dangerous cargo into the waterway threatened Louisville and the surrounding areas for more than 3 weeks.

Before the barge was safely removed, thousands had been evacuated as a precautionary measure.

We have, over the span of several years, Mr. Chairman, supported legislation which included the objectives of this bill.

It is our expectation that this licensing bill, when enacted, will be a great stride forward in promoting maritime safety and should reduce the possibility of casualties involving towing vessels.

One might ask how merely licensing personnel will solve the problem that we know to exist.

At the outset, we would be the first to agree that a license in itself will be no absolute guarantee that from that point on there will be no casualties.

An operator's license will be evidence that the person holding it has some qualifying operating experience on towing vessels on the waters for which he is licensed.

In addition, through an examination process, he will have demonstrated certain basic knowledge of Rules of the Road, Aids to Navigation, and elementary seamanship, for example.

In addition to being evidence of competency, the license will provide a measure of control that is now lacking. Once this licensing program is put into operation, the Coast Guard will have authority, through appropriate administrative procedure, of course, to suspend or revoke a license in cases of proven misconduct, negligence, or incompetence of the holder.

Mr. Chairman, we endorse the requirement for a study of the need for a licensed engineer aboard these vessels.

A detailed study would be useful in resolving the issue of whether a mandatory requirement for engineers could improve the safety of towing vessels.

Proposed regulations governing the issuance of the operator's licenses have been under development for the last few years and various segments of the towing industry have participated in this development.

Copies of these proposed regulations are available for your information. We can submit them for the record if you wish.

In general, the regulations are patterned after existing regulations applying to all other facets of the maritime industry.

Application procedures are clearly outlined and related to qualifying requirements with respect to age, citizenship, experience, physical condition, and professional examinations.

Special provisions are included to phase in the licensing requirements. The basic intent is to provide for the licensing of persons currently employed in order to avoid a disruption of the towing industry.

Those who present evidence of at least one year's satisfactory service in charge of the navigation of towing vessels would only have to pass an examination on the Rules of the Road, with provisions for an oral examination.

In conclusion, the Coast Guard strongly supports H.R. 6479 and urges its enactment.

We feel that the licensing program provided by this legislation would be a significant step in reversing the casualty trend by reducing the casualties attributed to a lack of qualified operating personnel, and thus enhance the safety of those waters on which towing vessels are operating.

Senator LONG. Could you give us more detailed supporting evidence of accident statistics, for example, findings as to unqualified personnel being involved in accidents, for the record?

Admiral REA. Yes; we can, sir.

Senator LONG. I would be pleased if you would provide that to us.

In other words, what degree of difference would it make if the person had been better trained, for example.

Admiral REA. We have that; yes, sir.

Senator LONG. Would you provide us a copy of implementing regulations that you propose?

Admiral REA. Yes, sir.

Senator LONG. As you recall, regulations were also considered by the Coast Guard when we considered the bridge to bridge bill. Afterwards, they were changed completely.

Can we anticipate we might have that result again?

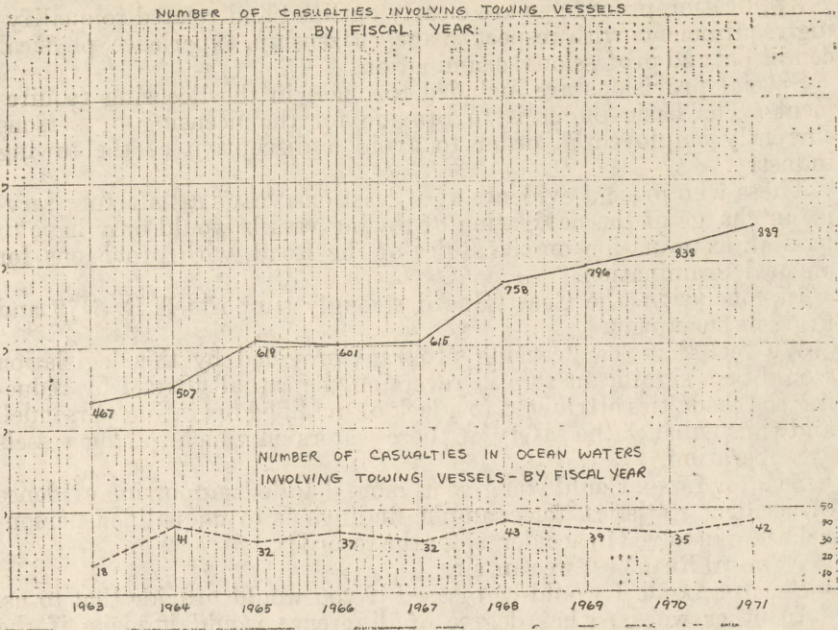
Admiral REA. Mr. Chairman, I hope not. It may be that the bridge to bridge rules may not be so far different than originally proposed. This is still under consideration.

I don't envision any such thing happening here, sir.

(The following information was subsequently received for the record:)

Attached is a graphical display, developed from the Coast Guard computerized casualty files, matching accidents to the year, from 1963 through 1971. In essence, it reflects a casualty rate which has almost doubled in the intervening years.

Attachment: graphic chart



Yes, the attached charts display this information for the years 1969, 1970, 1971.

Attachment: charts (3)

TOWING VESSEL CASUALTIES, FISCAL YEARS 1969-71

Nature and number of casualties 1

Year and area of occurrence	Collision										Total	
	Crossing, meeting, overtaking	Anchored, docking, undocking	Fog	Fixed object, piers, bridges, locks	Collisions, all others	Fires, explosions	Groundings	Foundering, capsizings, floodings	Material failure	Miscellaneous		
Inland:												
Atlantic	27(36)	12(14)	2(3)	51(55)	22(22)	3(3)	50(54)	8(8)	3(3)	2(2)	180(200)	
Gulf	80(135)	28(36)	3(5)	87(91)	34(38)	14(14)	14(15)	27(32)	2(2)	5(6)	294(374)	
Pacific	5(6)	7(8)	1(1)	16(25)	8(8)	2(2)	6(6)	4(4)	1(1)	2(2)	53(63)	
Western rivers	40(72)	9(12)	2(3)	53(54)	13(14)	7(7)	29(29)	26(26)	5(5)	5(5)	189(237)	
Great Lakes	0(0)	8(8)	0(0)	14(20)	3(4)	0(0)	1(1)	3(3)	0(0)	0(0)	29(36)	
Oceanic:												
Atlantic	0(0)	0(0)	0(0)	0(0)	2(2)	0(0)	7(7)	1(1)	1(1)	0(0)	11(11)	
Gulf	1(1)	0(0)	0(0)	0(0)	2(3)	2(2)	4(4)	4(4)	0(0)	2(2)	15(16)	
Pacific	1(1)	0(0)	1(1)	0(0)	0(0)	1(1)	3(3)	1(1)	3(3)	2(2)	12(12)	
Ocean, other	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	1(1)	0(0)	0(0)	0(0)	1(1)	
Foreign waters	2(3)	5(5)	0(0)	1(2)	0(0)	0(0)	4(4)	1(1)	0(0)	0(0)	13(15)	
Total	156(254)	69(83)	9(13)	222(247)	84(91)	29(29)	119(124)	75(80)	15(15)	18(19)	796(955)	

1970

Inland:	11(14)	12(12)	4(5)	40(43)	18(19)	6(6)	37(37)	7(7)	6(6)	3(4)	144(153)
Atlantic	94(154)	37(49)	4(5)	95(99)	30(35)	12(12)	25(27)	12(14)	13(15)	14(15)	337(435)
Gulf	7(11)	4(4)	0(0)	11(12)	11(12)	7(11)	11(13)	8(6)	7(7)	3(3)	61(69)
Pacific	26(48)	11(13)	6(13)	82(83)	26(28)	12(12)	36(36)	8(6)	15(16)	9(11)	231(268)
Western Rivers	1(2)	5(6)	0(0)	8(11)	6(6)	0(0)	4(4)	4(3)	0(0)	0(0)	28(34)
Great Lakes	0(0)	0(0)	0(0)	0(0)	1(1)	0(0)	3(3)	0(0)	2(2)	2(2)	8(8)
Ocean:	2(2)	0(0)	0(0)	1(1)	4(4)	1(1)	2(2)	4(4)	2(2)	1(1)	14(14)
Atlantic	0(0)	0(0)	0(0)	1(1)	0(0)	0(0)	0(0)	1(1)	2(2)	1(1)	9(9)
Gulf	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	2(2)	1(1)	2(2)	1(1)	4(4)
Pacific	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Ocean, other	2(2)	0(0)	0(0)	0(0)	1(2)	0(0)	0(0)	0(0)	0(0)	0(0)	3(4)
Foreign waters	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Total	143(233)	69(84)	14(23)	237(245)	97(107)	32(32)	120(123)	41(45)	51(54)	34(38)	838(988)

Inland:	19(27)	23(33)	1(1)	45(57)	23(24)	5(5)	63(69)	3(3)	8(8)	2(2)	192(229)
Atlantic	83(137)	28(35)	6(9)	93(91)	44(51)	13(13)	56(60)	14(15)	13(14)	5(5)	345(430)
Gulf	3(3)	8(11)	1(1)	14(14)	11(12)	3(3)	8(9)	2(2)	3(3)	2(2)	53(58)
Pacific	22(43)	12(14)	7(11)	51(52)	10(12)	11(11)	35(35)	6(8)	23(23)	6(6)	213(235)
Western rivers	2(4)	6(11)	0(0)	22(31)	6(6)	0(0)	4(6)	2(2)	1(1)	0(0)	43(61)
Great Lakes	1(1)	0(0)	0(0)	0(0)	1(1)	0(0)	2(2)	1(2)	6(6)	1(1)	12(13)
Ocean:	1(1)	3(3)	0(0)	0(0)	3(3)	0(0)	1(1)	3(3)	4(4)	1(1)	16(16)
Atlantic	0(0)	0(0)	0(0)	1(1)	1(1)	0(0)	1(1)	1(1)	4(4)	0(0)	7(7)
Gulf	0(0)	0(0)	0(0)	0(0)	2(4)	1(1)	1(1)	1(1)	1(1)	0(0)	7(9)
Pacific	0(0)	0(0)	0(0)	0(0)	1(1)	0(0)	0(0)	0(0)	0(0)	0(0)	1(1)
Ocean, other	0(0)	0(0)	0(0)	0(0)	1(1)	0(0)	0(0)	0(0)	0(0)	0(0)	1(1)
Foreign waters	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Total	131(216)	80(107)	15(22)	245(276)	102(115)	31(31)	171(184)	33(37)	63(64)	17(17)	839(1065)

1 Figures in parentheses indicate number of towing vessels involved.

Yes, the attachment records the requested percentage together with the amounts of property damage and number of deaths for the years 1963 through 1971. It is emphasized that these are conservative estimates subject to positive documentation. It is believed that, in reality, the personnel involvement figure runs considerably higher.

Attachment: Table

TOWBOAT CASUALTIES, FISCAL YEAR 1963-71

Fiscal year	Percent personnel fault	Monetary damage ¹ (in thousands)	Deaths ²
1963	42.9	\$15,945	59
1964	37.9	12,335	43
1965	35.9	11,178	19
1966	32.5	14,885	25
1967	43.4	* 3,555	35
1968	46.6	20,847	31
1969	47.3	* 9,661	38
1970	54.0	22,901	29
1971	49.6	20,162	41

¹ For all casualties including towboats—not just personnel fault. Also all vessels involved in the casualty.

² Only for towboats. Other vessels involved in the casualty are not included.

PROPOSED RULES AND REGULATIONS FOR LICENSING OF OPERATORS OF UNINSPECTED TOWING VESSELS

Note: 1. 1-72 draft has been revised to clarify minor points, which were brought out in discussions at Towing Advisory Committee Meeting held in Portland, Oregon, 6-7 April 1972, concerning renewal of licenses.

2. The proposed visual acuity requirements contained in 10.16-65(c) are in slight conflict with the relaxed requirements proposed by Item 23-71 in the Marine Safety Council Public Hearing Agenda of 27 March 1972.

(Those pages where revisions were made are marked by an asterisk in the lower right-hand corner.)

46 CFR PART 10, SUBPART 10.16

10.16 *Licensing of Operators of Uninspected Towboats*

10.16-1 *Application*

This subpart applies to licenses as "operator of uninspected towboats." "Uninspected towboat" under this subpart is a towboat to which (*identify statute*) applies.

10.16-5 *Definitions*

a. As used in this subpart, the term

(1) "Inland Waters" means waters on which the rules to prevent collision found at 33 USC 151-232 apply;

(2) "Western Rivers" means waters on which the rules to prevent collision found at 33 USC 301-356 apply;

(3) "Great Lakes" means waters on which the rules to prevent collision found at 33 USC 241-295 apply; and

(4) "International Waters" means waters on which the rules to prevent collision found at 33 USC 1051-1094 apply.

b. As used in this subpart the term "original license" means the first license issued to a person under this subpart.

10.16-10 *Establishment of licenses*

There are hereby established two licenses for operator of uninspected towboats:

1. a license as "operator of uninspected towboats" and

2. a license as "second class operator of uninspected towboats."

Such license is valid for operation of a towing vessel only when a person holding a license as "Operator of uninspected towboats" or a superior license is aboard the towing vessel being operated.

10.16-15 *Classification of licenses*

Licenses established under section 10.16-5 are basically classified and will be delineated as follows:

1. "Inland Waters only,"
2. "Western Rivers only,"
3. "Great Lakes only."

10.16-20 *Consolidation of classifications*

A license may be issued covering one or more or all of the basic classifications enumerated in section 10.16-15 if qualifications are met. In case of consolidation, the word "only" will be eliminated from the classification.

10.16-25 *International waters; additional classification*

a. A license classified under section 10.16-15 or bearing consolidated classifications under section 10.16-20 may also contain an authorization to serve on "International Waters."

10.16-30 *Special limitations on "international waters," authorization*

a. A license authorizing service on international waters under section 10.16-25 shall be further qualified by limiting the authorized service to no more than 200 miles offshore.

b. Such a license may be authorized for a greater distance than 200 miles offshore when meeting requirements of paragraph 10.16-70(c).

10.16-35 *Service limitations, generally*

Any license issued under this subpart may be limited by the Officer in Charge, Marine Inspection.

10.16-40 *Procedure for application for original license*

a. An application is to be made on Form CG-866.

b. An application must include the fingerprints of the applicant unless the applicant already holds a valid license issued by the Coast Guard.

c. Proof of qualification as set forth below must be submitted with the application.

10.16-45 *Qualification for license, citizenship*

a. A person who is not a citizen of the United States is not qualified for a license under this subpart.

b. An applicant for a license under this subpart may submit proof of citizenship in one of the following forms:

(1) Birth certificate or certified copy thereof, or delayed certificate of birth issued under the seal of a State,

(2) Certificate of naturalization, or, in the case of a person deriving citizenship through naturalization of parents, a certificate of citizenship issued by the United States,

(3) Baptismal certificate or parish record recorded within one year of birth,

(4) Statement of physician that he attended the birth and has a record of the date on which it occurred,

(5) A United States passport,

(6) Evidence proving citizenship in connection with having been commissioned in the United States Navy, Marine Corps, or Coast Guard, regular or reserve, on or after January 1, 1936,

(7) Reference to already existing Coast Guard records.

c. A person who cannot establish citizenship for purposes of this subpart by one of the seven methods enumerated in paragraph (b) of this section may submit an affidavit to that effect and may submit for consideration:

(1) a report of the Bureau of the Census showing the earliest record of age, parentage, and birth available

(2) affidavits of parents or other relatives

(3) affidavits of two or more responsible citizens

(4) school records,

(5) immigration records, or

(6) insurance policies.

10.16-50 *Qualification for license, age*

(a) A license as operator under this subpart will be issued to an applicant otherwise qualified who is at least twenty-one years of age.

(b) A license as second class operator under this sub-part will be issued to an applicant otherwise qualified who is at least nineteen years of age and not yet twenty-one.

10.16-55 *Qualifications for license, language*

An applicant for a license under this sub-part must be able to speak, read, and understand English as used in the applicable rules of the road, aids to navigation publications, emergency equipment instructions, and machinery instructions.

10.16-60 *Qualification for license, experience*

(a) An applicant for a license as operator under this sub-part must show:

(1) Three years' service on vessels of which two years' service may have been service on deck on any vessel of 26 feet or over in length and of which one year's service shall have been as a deckhand, wheelsman, or equivalent on a towing vessel, or

(2) Three years' service on towing vessels of which one year's service shall have been as a deckhand, wheelsman, or equivalent.

(b) An applicant for a license as second class operator under this sub-part need show only 18 months' service on deck on a towing vessel.

(c) An applicant whose license is to be restricted under section 10.16-35 need show only 18 months' service on deck on a towing vessel within the geographical area to which the license is to be limited.

10.16-65 *Qualification for license, medical examination*

(a) An applicant for an original license under this subpart is required to undergo physical examination by a medical officer of the United States Public Service, or some other reputable physician, and to obtain a certificate of fitness for the duties of a towboat operator. The certificate must certify the applicant's acuity of vision and color sense and general physical condition.

(b) Epilepsy, insanity, senility, acute venereal disease, neurosyphilis, badly impaired hearing, and other like defects are causes for rejection of an applicant.

(c) Standards of acuity of vision are at least 20/20 in one eye and 20/40 in the other, with or without correction, but an applicant who requires correction to meet this standard must have, uncorrected, at least 20/50 vision in one eye and 20/100 in the other.

(d) Test for color sense shall be by means of pseudo-isochromatic color plates, but an applicant who cannot pass this test may submit proof of passing the Farnsworth lantern test or failing that, the Williams lantern test.

(e) In the case of an applicant who does not meet the standards set in this section, an Officer in Charge, Marine Inspection, may, in his discretion, submit to the Commandant a request for a waiver.

10.16-70 *Qualification for license, professional examination*

(a) Examination will be practical rather than theoretical. An examination will be in writing unless an oral examination is determined to be necessary. Such oral examination shall be recorded.

(b) An applicant's examination shall cover the following subjects:

(1) Rules of the Road (as applicable).

(2) Practical use of the magnetic compass (as applicable).

(3) Shipboard instruments and accessories.

(4) Emergency signals.

(5) Chart work.

(6) Aids to Navigation.

(7) Lifesaving and simple first aid.

(8) Firefighting equipment and procedures and fire prevention.

(9) Seamanship or boatmanship (as appropriate to the license).

(10) Knowledge of all regulations and laws applicable to the operation of a towing vessel, including the regulations in Subchapters C and D of this chapter.

(c) An applicant for a license valid for service more than 200 miles offshore will also be examined in celestial navigation and must present a First Aid Certificate from the U.S. Public Health Service.

(d) An applicant to whom a license limited under section 10.16-35 is to be issued need be examined in chart work only for the geographical areas to which the license is to be limited.

10.16-75 *Denial of issuance of license*

(a) Issuance of a license shall be denied to any person who does not meet the qualifications of this subpart.

(b) Issuance of a license will be denied to any person who has been:

- (1) Convicted of treason.
- (2) Convicted of desertion from an armed service.
- (3) Convicted in a court of record, within ten years before filing of application, of violation of a narcotic drug law of the United States, a State or Territory of the United States, or the District of Columbia, or
- (4) A user of or addicted to a narcotic as defined at the Act of July 15, 1954, 68 Stat. 484, unless he furnishes satisfactory (46 USC 239a) proof of cure.

(c) Issuance of a license shall be denied to any person who does not furnish written recommendations from three reputable persons who know the applicant. One of the three recommendations must be from a master or operator who has employed the applicant.

(d) Issuance of a license shall be denied to any person whose habits of life and character are such as to warrant the belief that he cannot be entrusted with the duties and responsibilities of the position for which he is to be licensed.

10.16-80 *Effect of existence of orders of suspension or revocation or issuance of license*

(a) No person who held a certificate or license which has been revoked or suspended in a proceeding under part 137 of this chapter may be issued a license under this subpart unless he is entitled to and holds another valid license or certificate.

(b) A person otherwise qualified who holds a license or certificate under an order of probation issued after a proceeding under part 137 of this chapter may be issued a license under this subpart but the license, when issued, is subject to the order of probation.

10.16-85 *Issuance of license*

(a) Prior to issuance of a license an applicant is required to take an oath before a Coast Guard officer authorized to administer an oath that he will faithfully and honestly, according to his best skill and judgment, without concealment or reservation, perform all the duties required of him by law.

(b) An applicant shall place his signature and left thumb-print on the license and on any sheet attached thereto.

10.16-90 *Duration of license*

A license issued under this subpart is valid for a period of five years unless suspended or revoked after proceeding under part 137 of this chapter.

10.16-95 *Removal of limitations on licenses*

(a) A limitation placed on a license issued under this subpart may be removed by the Officer in Charge, Marine Inspection, who issued the license if he is satisfied that change in qualification justifying the lifting of the limitation has occurred.

(b) An Officer in Charge, Marine Inspection, may not authorize the removal of a limitation placed on a license by another Officer in Charge, Marine Inspection, without the knowledge and consent of that officer.

(c) A person who holds a second class license issued under this subsection may, on reaching age 21, obtain a license as operator if the additional requisite service experience is shown.

(d) A person who holds a license limited to a certain geographical area may, at any time within the five-year period of duration of the license, obtain a license with broader limitations or without limitation upon showing of the requisite service.

10.16-100 *Conversion of license*

(a) A license as second class operator may be converted to a license as operator when the holder has reached age 21 and meets the experience requirements of paragraph (a) of section 10.16-60. All requirements of this subpart apply to an

application for conversion under this paragraph and a license converted under this paragraph except sections 10.16-45, 10.16-55 and 10.16-70.

10.16-105 *Renewal of license*

(a) No license as second class operator may be renewed in kind, although it may be converted under section 10.16-100.

(b) A license limited under 10.16-35 because of limited service allowed in 10.16-60(c) shall not be renewed unless additional service to meet the requirements of 10.16-60(a) is presented.

(c) A license as operator not limited under section 10.16-35 may be renewed for an additional five-year period. All regulations of this subpart apply to an application for renewal under this section and to a license renewed under this section except sections 10.16-45, 10.16-55, 10.16-60, and 10.16-70.

(d) An applicant for renewal under this section shall execute an affidavit that he has within the three months preceding the date of application, read the Rules of the Road for the waters for which the license is to be issued.

(e) An application under this section may be submitted not more than 90 days before the expiration date of the license held.

(f) An application under this section may be submitted within one year after the expiration of the license. When a holder of a license is serving in an armed force of the United States at the time of expiration of his license and there was no reasonable opportunity for him to renew the license during such service, the one-year period commences to run on the date of the persons' release from active duty from the armed service.

(g) An applicant for renewal of a license under this section who has not served under authority of his license, or been employed in a position closely related to the operation of vessels during the three-year period immediately preceding the date of application, shall be required to satisfactorily complete an examination in Rules of the Road before such license shall be renewed.

(h) An applicant for renewal of a license under this section who has lost the sight of one eye may obtain renewal of his license, if otherwise qualified, if the vision of the remaining eye, uncorrected, is 20/20.

10.16-110 *Suspension and revocation of licenses*

A license issued under this subpart is subject to action under part 137 of this chapter.

10.16-115 *Parting with license*

When a holder of a license voluntarily parts with it or places it beyond his personal control by pledging it or depositing it with any person for any purpose, the holder's license may be proceeded against under part 137 of this chapter.

10.16-120 *Loss of license; issuance of duplicate*

(a) A person whose license has been lost may apply for a duplicate. The regulations of this subpart, except sections 10.16-45, 10.16-55, 10.16-60, and 10.16-70, apply to applications for licenses under this section and to licenses issued under this section.

(b) The application must contain an affidavit adequately explaining the loss of the license.

(c) A duplicate license shall be issued in the same terms and for the same expiration date as the license lost.

10.16-125 *Appeals*

(a) When issuance of any license under this subpart is denied by an Officer in Charge, Marine Inspection, the applicant has the right to appeal to the Coast Guard District Commander having cognizance.

(b) If a District Commander affirms a denial of issuance of a license by an Officer in Charge, Marine Inspection, the applicant has the right to appeal to the Commandant.

(c) Appeals under this section must be filed in writing within fifteen days of notice of the action appealed for.

10.16-130 *Operations under authority of licenses*

(a) A person who holds a license as master, mate, or pilot issued under this part may serve as an operator under this subpart, without a special license issued under this subpart, subject to limitations placed on the license as master, mate, or pilot.

(b) A second class operator may serve only aboard a vessel on which there is also employed an operator licensed under this subpart for the waters on which the vessel is operated or a person qualified under paragraph (a) of this subsection.

10.16-135 *Special Provisions*

(a) A person who, within one year of the effective date of this subpart, presents evidence of at least one year's service in charge of the navigation of a towing vessel, within three years of the date of application, is excused from the requirements of service in section 10.16-60 of this subpart but shall pass the examination in Rules of the Road required by 10.16-70(b)(1).

(b) Such a person, if found to be color-blind, may be issued a license limited to daytime operation only ("sunrise to sunset").

(c) Such a person, who has sight in only one eye, is excused from the requirements of paragraph (c) of section 10.16-65 if the sight in the one eye is, corrected or uncorrected, 20/20, but if corrected at least 20/50 uncorrected.

(d) Such a person, if illiterate, may be examined orally in Rules of the Road as required by 10.16-70(b)(1).

CHANGES TO PART 10 TO SUPPORT THE PROPOSED SUBPART 10.16

1. Amend 10.01-1 to read:

The purpose of the regulations in this part is to provide a comprehensive and adequate means of determining the qualifications an applicant must possess in order to be eligible for a license as deck or engineer or radio officer on merchant vessels, or for a license as operator of an uninspected towing vessel, or a license to operate motorboats or for a certificate of registry as staff officer.

2. Amend 10.01-5 by deleting present paragraph (f) and adding new paragraph (f).

10.01-5(f) *License as operator of uninspected towboats*

The regulations concerning the licenses of operators of uninspected towboats interpret or apply (identify statute).

Senator LONG. Now, Admiral Bender was before our committee, and he agreed that he would try to detail two or three good men in the Morgan City area to help us work out a training program that would be responsive to the needs and the education of the people in that area.

You are aware of that, are you not?

Admiral REA. Yes, I am, Mr. Chairman.

I can give you very quickly a report on that.

In response to that request, and I was here when Admiral Bender made the commitment to you, sir, I was in New Orleans this week and I met for an hour and a half with at least one of the parties who put this proposal forth, and we are on the road now to implementing this.

So the first steps have been taken already.

Senator LONG. If we could have the kind of a program tailored to the specific problems that those people are confronted with, I think it could serve a good purpose, but if it is just going to mean putting a lot of people out of work by requiring, for example, that they know something about the operation of how to repair a refrigerator, for example, and they don't need to be able to repair a refrigerator to do that job, and it would be very unfortunate and cost a lot of good people their livelihood when it wasn't something they needed to begin with.

Admiral REA. We are working on it.

We do plan assigning some people for that.

I might comment, Mr. Chairman, these problems are primarily in the off-shore industry as opposed to the inland industry. It is primarily in supply vessels, crew boats, and to a minor extent, the towing.

Senator LONG. Yes.

Senator COOK. Mr. Chairman, I think I can get the statement in in 10 minutes, and I would like to read it, because I would like the admiral's remarks and I would like the other witnesses' remarks, if you don't mind.

There are two bills before Congress which would regulate commercial river traffic patterns and insure much needed safety on our inland waterways.

They are H.R. 6479, a bill to provide for the licensing of towboat pilots operating an uninspected towing vessel, and H.R. 8140, a bill to promote the safety of ports, harbors, waterfront areas, and navigable waters of the United States.

I would like to address my opening remarks this afternoon to these two bills.

Before doing so, however, I would like to point out the seriousness of the problem we face.

Provisions in the revised statutes require the inspection of towing boats, with respect to officers navigating such vessels, that such vessels must be licensed.

Unfortunately, the language in this statute has been broadly interpreted to apply only to steam-propelled vessels.

In 1968, there were only 27 steam-propelled vessels, while the number of documented motor-propelled towing vessels had increased to 5,856.

Of these motor-propelled vessels, only 35 were subject to the requirements of inspection laws. Today there are 5,000 towing vessels the operators of which are not now required to be licensed.

This is the context in which the bills before us appear.

The first of these significant measures, the towboat licensing bill, would be an immeasurable tool in assuring safe navigation on our inland waterways.

It would require an uninspected towing vessel, while underway, to be under the actual direction and control of a person licensed for that purpose. The license would be issued for operation on a particular geographic area, by type of vessel, under regulations prescribed by the Secretary of the Department of Transportation.

The need for prompt consideration and passage of this measure is obvious. The present regulatory statutes do not provide sufficient teeth to insure a permissible degree of safety on the rivers. Vessel casualty statistics emphasize and underscore this statement.

The Coast Guard reported that for fiscal years 1962-64 there were 1,490 towing vessel casualties. Of these, approximately 80 percent involved collisions or groundings, the large majority resulting from personnel error.

For fiscal years 1965-68, the Coast Guard investigators found in the 2,593 reported casualties, similar findings. For instance, in fiscal year 1968, of 758 reported casualties, involving 852 uninspected towing vessels, 611 involved either collisions or groundings, the remaining 19 percent being the result of fires, material failures, or unidentified causes.

In the 1965-68, period, the casualties resulted in 109 fatalities, an unknown number of personal injuries, and in excess of \$50 million in property damage.

In 1971, the casualty figures are equally horrifying, if not more so. On the reported casualties for this year involving uninspected towing vessels, almost 50 percent were the result of human error.

The assessment of these figures can be none other than that the trend in casualties involving towing vessels has continued steadily upward.

Looking at the towboat incidents in and around the Commonwealth of Kentucky, I am convinced of the truth of the trend in steadily climbing towboat incidents.

Since last October, there have been at least 10 separate incidents involving barge collisions, sinkings, or explosions on the Ohio River, one of the Nation's most important commercial inland waterways and without a doubt one of the contributing influences to the success of the economy of the Commonwealth of Kentucky.

Briefly let me relate the circumstances of several of these damaging incidents:

One, the most potentially dangerous incident occurred March 9, 1972, when a barge laden with lethal chlorine gas broke away from its tow and became lodged in one of the gates at the McAlpine locks and dam in Louisville.

This incident prompted a 24-hour evacuation of 4,700 residents of the Portland area of Louisville, completely disrupting "business as usual" in much of the downtown area.

Only through the excellent performance by the city of Louisville officials, the Corps of Engineers, the Coast Guard, and others, was serious injury and damage averted.

Two, on October 26, 1971, several barges containing the highly volatile chemical compound methanol exploded at Brandenburg, Ky., about 40 miles downstream from Louisville. The explosion resulted from a collision of two barges. It shattered windows in nearby homes and the barges burned for hours before the flames were brought under control. Fortunately, no one was injured.

Three, on April 20, 1972, a string of three barges containing gasoline broke loose, smashed into Cannelton Dam 115 miles downstream from Louisville and erupted into flames. Several days later the fire, fed by an estimated 3 million gallons of gasoline dumped into the Ohio, was still burning out of control.

The pilot of the towboat is missing and two crew members were hospitalized. I ask that newspaper clippings of several recent barge incidents in the Commonwealth of Kentucky be included in the record at the end of my remarks.

Mr. Chairman, I mention these tragic incidents to bring to light not only the serious jeopardy in which the citizens are being placed as a result of these mishaps, but also to point out the needlessness of these misfortunes.

I believe that by requiring pilots of towboats to be licensed, they will necessarily be judged to be competent to handle their trade, thereby assuring a greater degree of safety on our inland waterways.

Operators of automobiles are required to be licensed by their States to prove that they have attained at least a minimum of proficiency when handling their vehicles.

I believe towboat operators should likewise be licensed.

I might digress and tell you yesterday the Belle of Louisville was making a turnaround in the harbor, it received a hole in its hull, as a result of banging into a sunken coal barge.

Now, everybody on the Belle of Louisville, because they carry passengers, has to be licensed, and you look over it like a mother hen, the Coast Guard does.

But here you have a situation where an unlicensed towboat operator lost his whole tow going into the canal at the head of Twohead Island, and as a result of this, the barge sunk and a licensed boat now runs into it and has to be put into drydock.

Fortunately, it wasn't serious and fortunately, they didn't have any passengers on it.

On April 15, 1971 the House committee report has concluded, as a result of careful consideration of overall problems of towing vessel safety, that the major cause of casualties involving uninspected towing vessels has been personnel errors involving operators.

Licensing would not totally eliminate casualties, but it should certainly improve the current situation on our inland waterways.

Presently, a towboat pilot is not penalized for a riverboat miscarriage. However, if he knows that his license may be revoked or suspended for poor performance, then, and only then, can we have some sort of guarantee that his duty will be carried out more conscientiously and to the utmost of his ability.

At this time a total of six sunken barges are in the vicinity of McAlpine Dam—the result of accidents since March 2. The base of the dam is beginning to resemble Pearl Harbor with all the sunken hulls strewn across the river. I think it is high time that we act to eliminate these accidents by the enactment of this legislation.

Another important bill that would insure safety on the rivers is H.R. 8140. "The Navigable Waters Safety and Environment Quality Act of 1972."

I believe that H.R. 6479, together with H.R. 8140, will augment safety on our commercial water highways. Hand in hand, these two bills will prevent and mitigate the hazards to the security of life, property, and the marine environment.

H.R. 8140 will accomplish this result by providing the Secretary of the Department of Transportation and the Coast Guard with broad authority to establish and operate vessel traffic services, systems, and controls for waters subject to congested vessel traffic, to prescribe safety equipment and procedures for structures subject to the act, and to require that vessels be built to higher operational standards.

The emphasis of this legislation is prevention.

It is urgently needed to cope with the increasing safety hazards of maritime transportation and with the pollution resulting from operation and casualties of vessels carrying oil or other hazardous substance in bulk.

Admiral, you are aware also of the fact that I have gotten a new section on the toxic substances bill, which is titled "Port and Waterway Safety," which again will give you the authority more specifically in the regulation, the setting of standards, for the movement of toxic substances in the inland waterways, with regard to canals, locks, dams, et cetera, and I can only say that we in our part of the country think

this is a particularly extremely important subject at this time because of the situation that we find ourselves in.

So, Mr. Chairman, in conclusion, let me emphasize once again that collectively, the licensing bill and the Navigable Water Safety and Environmental Quality Act will prove to be of immeasurable significance in assuring safety on our commercial waterways.

The recent incidents on the Ohio River have renewed and proven the urgency for the initiation of immediate preventive measures.

I urge my colleagues to take immediate action to insure swift passage of these measures.

Thank you.

Senator COOK. Mr. Chairman, I have got a number of things I would like to put in the record.

Senator LONG. If there is no objection, it is agreed.

Senator COOK. Admiral, you know the problems that we face, and I hope this agrees with you, and frankly, I want to congratulate you all and the work that you did and the creative ingenuity of establishing that Catamaran with two Coast Guard vessels put into that water, and I guess the current right at that point must have been at least 25 or 30 miles an hour, easily.

And it was only through those efforts and the precautions that were taken that that 640 tons of chlorine gas were removed without any incident.

I want to thank you.

Admiral REA. Thank you, sir.

Senator LONG. Thank you very much, Admiral.

Do you care to make a statement, sir?

STATEMENT OF HON. JOHN S. COOPER, U.S. SENATOR FROM KENTUCKY

Senator COOPER. Mr. Chairman, members of the committee:

I shall put my statement in the record, and I will just refer to certain parts of the statement.

I would like my colleague, Senator Cook, to know I support H.R. 6479, which would require the licensing of pilots operating un-inspected towing vessels.

As it was said at the beginning, I am not too acquainted with the duties of pilots, but my attention has been called to this problem, as it has been to Senator Cook, by a series of accidents and incidents which have occurred on the Ohio River, and particularly at Louisville, Ky.

The chairman knows very well that the traffic on the Ohio River has increased rapidly since the reconstruction of the locks and dams. I think it is correct that with the exception of the incoming ocean traffic to New Orleans that the remaining traffic on the Ohio River is larger than any stream in the world, including the Mississippi, and including the Rhine. I think that has been referred to a number of times.

As Senator Cook has said, the recent accidents on the Ohio River have brought rather dramatically to our attention the safety hazards of barge transportation. I am sure you know that Senator Cook has detailed the potential danger of the barge that was lost at the Mc-

Alpine Dam. If that barge had broken up and the chlorine had gone to gas, I think it could have put the people of that city in grave danger of their life, and certainly they would have been injured. It was necessary to evacuate about 5,000 people from the area, and I think it was the correct thing to do.

It might have been a thousand to one chance or a million to one chance, but if it had occurred, it would have been one of the major disasters of our time.

Now, I don't mean to imply that these accidents occurred solely because the pilots weren't licensed. I do not know. But given the increase in barge traffic and the growing transportation of hazardous materials, I think we should take every step that could reasonably be expected to lead to decrease accidents.

Our great cities, and the people who live in them, deserve protection against this incidence of barge accidents, and particularly those carrying hazardous materials. I am very glad that Senator Cook and this committee has adopted a new section to the Toxic Substances Control Act which would regulate the convoy of hazardous material.

Perhaps the committee would like to investigate other measures such as inspection of vessels, stepped up surveillance, monitoring the flow of traffic in hazardous materials, other traffic control, limitation upon the maximum sizes of barges, the maximum number of barges, and so forth.

I am reminded that with a long tow, with thousands and thousands of tons of material, it might be like a small boat pushing the Senate Office Building up the river, and it may be that the pilot can't even see ahead of the tow. I know that some pilots are opposed, at least very cautious, to the need of Federal licensing. Recognizing their expertise and the rivers they travel, one can understand this.

The story of the river pilots has become a part of the American folklore. American literature tells the story of bravery and accomplishment. Anyone familiar with river boat captains will recognize the goals that they have accomplished. I do not believe that licensing based on book knowledge will substitute the valuable river knowledge that comes from experience.

To work on the river is to know the channels, currents, undertows and so forth. Technical knowledge is not a substitute for knowing the character of the waterway. I suggest that perhaps you should, in the bill or in the report, list the practical and essential knowledge of experience and insist it be given weight.

Nevertheless, Mr. Chairman, members of the committee, it seems to me this is a reasonable step to take. It was applied to steam-propelled tows, and I understand that this bill applies to power-driven tows that now, of course, are the operating factors on the river.

I thank you very much.

Senator LONG. Thank you very much.

(The statement follows:)

STATEMENT OF HON. JOHN SHERMAN COOPER, A U.S. SENATOR FROM KENTUCKY

I appreciate this opportunity to come before the Committee concerning the subject of your hearings today—licensing of personnel operating uninspected towing vessels. A series of recent accidents on the Ohio River has focused attention on the need to appraise what the Congress can do to improve river transportation safety.

I have talked with Senator Cook—a member of this full Committee—and I know of his deep interest. He has told me of his amendment to the "Toxic Substances Control Act" and I am glad that he has taken this initiative.

However, I did want to appear today to express my support for, at least, the House passed bill, H.R. 6479. I believe licensing of pilots on board uninspected towing vessels should be required. In addition, I suggest the Committee may want to examine the merits of new traffic control procedures and boat inspections—and I am pleased to note that the House passed bill does direct the Secretary of Transportation to conduct a study to determine the need for inspection of towing vessels with respect to safety.

I know that many pilots have been opposed, or at least cautious about the need for federal licensing. And recognizing their expertise, experience, love of their work and the rivers they travel, one can understand their caution. The excellency of river pilots has almost become an American folk-lore. American literature has told their story of bravery, heroism, and competence. Anyone who has read Mark Twain's accounts of Mississippi riverboat captains would acknowledge the great, legendary, role they played in American tradition and development.

I do not suggest that licensing based upon written tests and "book" knowledge will itself substitute for the invaluable "river" knowledge that comes from experience. To work on a river is to know its idiosyncracies—its currents, channels, undertows, and underbrush. Technical knowledge is not a substitute for knowing the character of a waterway. I suggest that these practical and essential requirements for expertise be given weight—such as knowledge of and time of service on the river.

Nevertheless, given the rapidly increasing volume of traffic—especially in hazardous materials—and the increasing frequency of accidents, it is essential to have some means of appraising qualifications of pilots. Since 1950, ton miles on the Ohio River have tripled, from 10 billion to 30 billion annually.

Attention has been dramatically drawn to the safety hazards of barge transportation by a number of recent accidents involving hazardous materials on the Ohio River—one of our country's greatest transportation arteries. On March 19 of this year, a barge carrying liquid chlorine broke away from its tow and lodged halfway over the McAlpine Dam. For several weeks, critical potential danger to the health and lives of people in the heavily populated area of Louisville was in balance. Excellent cooperation and planning among the City and County officials, the Army Corps of Engineers, the U.S. Coast Guard, and the Office of Emergency Preparedness prevented this explosively dangerous situation from turning into a disaster. Section 221 of the Federal Disaster Act was implemented and about 4,700 residents of the Portland area—near the locks—were evacuated.

More recently, on April 20, at Cannelton Dam near Hawesville, a barge carrying oil and gasoline exploded and sank—sending an oil slick down river and flaming gasoline leaked from another barge that smashed into the dam. The Corps of Engineers estimated that as much as 3 million gallons of gasoline and diesel fuel may have been dumped into the Ohio River.

On the same day, near Louisville, a 13-barge tow broke in heavy currents and was the fourth accident involving barges on the Ohio River at Louisville in six weeks.

These accidents forcefully call attention to the problems of shipping hazardous materials—not only by water but by truck, rail and air.

I would not want to imply or suggest that the pilot of any of these barges was at fault, negligent, inexperienced, or, in fact, that the accidents could have been avoided if the pilots had been federally licensed. Yet, given the increase in barge traffic and especially the growing transportation of hazardous materials, I believe it is prudent to take every step which can reasonably be expected to lead to a decrease in mishaps. Many of our great cities are adjacent to rivers, and our people deserve reasonable precautions to reduce the increasing incidence of barge accidents carrying hazardous materials.

I consider licensing to be a minimum need at this time and would suggest the Committee may want to examine other possible measures as well, such as inspection of vessels, stepped up surveillance and monitoring of the flow of traffic in hazardous materials, other traffic controls, and limitations upon the maximum size of barges and the maximum number of barges coupled in a single tow, according to the power and maneuverability of the tow.

Last month the Senate passed the "Navigable Waters Safety and Environmental Quality Act of 1972." This bill would assist in reducing accidents in the

Nation's harbors and waterways and in mitigating damages to property and dangers to life. I hope the Conference will report the bill soon and that it will become law.

Senator LONG. The next witness will be Mr. Leon Shapiro, secretary-treasurer of the National Marine Engineers' Beneficial Association, and he will be accompanied by Mr. Hoyt Haddock, AFL-CIO Maritime Committee.

STATEMENT OF LEON SHAPIRO, SECRETARY-TREASURER, NATIONAL MARINE ENGINEERS' BENEFICIAL ASSOCIATION; ACCOMPANIED BY HOYT HADDOCK, EXECUTIVE DIRECTOR, AFL-CIO MARITIME COMMITTEE; AND DANIEL COLON, REPRESENTATIVE, NATIONAL MARINE ENGINEERS' BENEFICIAL ASSOCIATION

Mr. SHAPIRO. Mr. Chairman, members of, and counsel, to this honorable committee, my name is Leon Shapiro. I am national representative of the National Marine Engineers' Beneficial Association AFL-CIO.

I am accompanied by Daniel Colon, also a national representative of the Marine Engineers' Beneficial Association.

I ask the committee's indulgence, and I would like Mr. Colon to make the presentation on the testimony.

Mr. COLON. Time and time again, together with the AFL-CIO Maritime Committee, we have urged the adoption of legislation requiring licensed personnel and in particular a licensed marine engineer in the operation of towing vessels.

In addition, we have repeatedly expressed the need for the inspection and certification of such vessels in the interest of safety. Our interest stems not only from the fact that we are concerned with the safety of the many licensed marine engineers who work aboard non-towing vessels which have occasion to operate on the inland waterways and whose safety is endangered by the operation of unregulated towing vessels which have no licensed marine engineer aboard, but also we are deeply concerned with the tragic carnage of lives, and of property, over the years as a result of the deplorable lack of regulation by responsible governmental agencies of towing vessels and their crews.

We, therefore, oppose H.R. 6479, as being inadequate in promoting safety to the lives of the crews, other mariners, the public in general, and the property of both private and governmental agencies that may be endangered due to the lack of inspection of the tow boats, crews, and licensed pilots, masters, and engineers.

We respectfully request that the committee take note of bills H.R. 4177 and H.R. 4178 presently in committee that are broader in scope and nature and that we strongly support in principle.

THE EXTENT OF THE PROBLEM

The inland waterways uninspected and unregulated fleet consists of about 4,250 tow boats, the aggregate power of which is about 3,858,563 horsepower; more than 15,000 dry cargo barges and more than 3,000 tank barges. This fleet is owned by some 1,700 companies.

The power of the two boats in this fleet ranges from 1,000 (with some minor exceptions) to 6,000 horsepower with 9,000-horsepower towboats operating on the lower Mississippi. The average power ranges of the tug boats are from 350 to 4,500 horsepower. The towboats service flotilla of barges may be as many as 40 to 50 in one tow which may consist of 40,000 to 50,000 tons of cargo.

The aggregate capacity of dry cargo barges is more than 17 million tons and that of tank barges is more than 6 million tons. More than 25,543 miles of commercial navigable inland waterways acceptable for inland barge operations exist in the United States. Eighty thousand persons are employed aboard these inland waterway vessels.

The cargo carried by the barges include, according to the U.S. Coast Guard, more than 140 chemical commodities such as acetic acid, tartaric acid, hydrochloric acid, nitric acid, carbon tetrachloride, caustic potash, sodium phosphate, and so forth. It has been authoritatively estimated that petroleum and petroleum products constitute about 36 percent of the towing vessel and barge cargo, all constituting a frightening source of disaster in the event of a collision or fire.

CASUALTIES RESULTING FROM LACK OF REGULATION

During the period 1962 to December 1967, 245 lives were lost due to casualties involving uninspected towing vessels. Only one life was lost during that entire period due to casualties involving inspected towing vessels. Significantly, as the Coast Guard points out in its 1962 comprehensive study of towing vessel operations, "while the number of towing vessels increased 20 percent over a 10-year period, the number of casualties increased by 120 percent to an average of 559 casualties per year for the period 1960 to 1962."

IS INDUSTRY SELF POLICING ADEQUATE?

The simple answer is contained in the list of casualties noted above. A vessel casualty record of one out of every 10 vessels per year and the loss of 245 lives during the period 1962 through 1967 due to casualties involving uninspected towing vessels is hardly proof that the industry has policed itself in the interests of safety or indeed has shown any demonstrable concern in that area.

DO DIESEL POWERED TOWING VESSELS REQUIRE REGULATION IN THE INTEREST OF SAFETY?

The U.S. Coast Guard presented its considered judgment based on comprehensive studies made by it, that motor propelled tugboats and towboats should be subject to the same kind of regulations as steamboats, "because the operating hazards are basically the same." The Coast Guard continued, "the stability, watertight integrity, safety equipment and propulsion equipment of a diesel towboat pushing 1,000 feet of barges ahead and containing in many cases, highly dangerous cargoes, are certainly just as important to safety on our waterways as the same conditions on a 60-foot passenger vessel, a 20-ton freight vessel or a steam towboat, all of which are now subject to inspection by law."

The Coast Guard concluded that, "The public interest must be served in connection with the safety of life and property on the water and that this philosophy should apply to the diesel towboat as well as other types of commercial vessels."

SHOULD LICENSING OF OFFICERS ON TOWING VESSELS BE REJECTED BECAUSE SOME OFFICER PERSONNEL NOW ON THOSE VESSELS ARE ILLITERATE?

On the inland waterways systems, many pilots, masters, engineers and other crew members are not only unlicensed and not certificated, but cannot read or write. While it is understandable that some may be equipped by reasons of years of experience to perform their functions aboard these vessels, it is shocking that the industry should make a virtue of illiteracy and advance it as one of the major reasons for opposing Coast Guard licensing.

According to industry spokesmen, the system of Coast Guard licensing of pilots and engineers is "outdated and obsolete and making such a license a condition of employment would be a giant step backward in the towing vessel industry." Illiteracy seems to be the most modern and desirable condition of man, according to the industry.

Instead of recognizing the problem created by the industry's employment of vessel officers, who can neither read nor write, and instead of perhaps advancing suggestions for special training programs which would make these employees less illiterate, the industry actually makes a virtue of illiteracy. It is even suggested, that the unlicensed illiterate employee is to be preferred over the literate licensed officer because of some romantic mystique that prevails on the bayous and the rivers. This position has been repeated time and again, in one form or another by other two-vessel industry spokesmen.

IF LICENSING REGULATIONS WERE REQUIRED, WILL THE COAST GUARD IMPOSE EXCESSIVE MANNING AND "FEATHERBEDDING" ON THE INDUSTRY?

Recognizing that the Coast Guard is charged by law with the responsibility of maintaining safety in waterborne traffic and that safety may require mandatory minimum manning, the towing vessel industry, by hysterically shouting "featherbedding," hopes to divert Congress away from the safety needs of inland waterways.

The real concern of the towing vessel industry is not that the Coast Guard will, under legislation authorizing regulations, demand "featherbedding," but that it will demand minimum manning required for safety. The industry concern is that many of the towing vessel owners and operators do not carry sufficient crews to maintain the elementary requirements of safety and will be compelled to spend the funds necessary to meet such requirements.

The industry well knows from the Coast Guard itself that it is not threatened by "featherbedding" edicts.

The Coast Guard has time and again officially disclaimed any such intention and has assured the industry that "Coast Guard policy for many years has been to prescribe a bare manning crew on all vessels to meet statutory requirements sufficient to operate the vessel at sea."

EFFECT ON OIL POLLUTION PROBLEMS

Recent inland waterway disasters resulting in pollution by oil and other petroleum products carried as cargoes on vessels have raised a hue and cry in the country and have been the subject of the most intensive examinations by Congress of ways and means of meeting the problem. It must be said that the adoption of H.R. 6479 is a step backwards in the fight against pollution on inland waters because inspection of towboats, crew and licensed engineers are not required by this bill. The transportation by more than 4,250 uninspected and unregulated towing vessels operating on the inland waterways of cargoes, more than a third of which are petroleum and petroleum products amounting to approximately 184,532,740 net tons in 1970, cries out for responsible Government regulation to minimize if not wholly eliminate the dreaded pollution of our inland waterways and adjoining shores.

We, therefore, respectfully request that the committee consider amending H.R. 6479 along the lines of H.R. 4177 and H.R. 4178 in order that it may truly provide safety on the waterways and that it may become effective antipollution legislation.

EFFECTIVE LEGISLATION IS URGENTLY NEEDED

It would be an understatement to say that legislation is long past due. More than 35 years have elapsed since the changeover from steam to motor propulsion on these vessels. Since that almost complete changeover to diesel propulsion, the towing vessels have been wholly unregulated and uninspected there has been no requirements for inspecting the tow vessels. In short, the safety factors in this operation have been wholly left to the unsupervised and uncontrolled discretion of the industry.

A recent study of towing vessel safety by the National Transportation Safety Board conducted under the authority of the Department of Transportation Act of 1966 and released in August 1969, warns of the need for safety control study "if major catastrophic casualties are to be prevented." The Board summarizes the element of "Projected Growth of Inland Waterway Shipping" as follows:

1. Based on present trends, and assuming a continuation of our national and economic growth, an increase of 350 percent of inland waterborne commerce is predicted in the next 50 years.
2. Horsepower of towing vessels will double, and speed will increase 25 percent during this period.
3. The increased sizes of tows, power, and speed of towing vessels without proportional development of the navigable waters will result in more congestion on the inland waterways system. This congestion, coupled with the rapid expansion of the petrochemical industry, will result in more casualties involving many types of hazardous materials.
4. The need for a complete study of safety control of waterborne shipment of hazardous materials on the congested sections of inland waterways of the United States is apparent if major catastrophic casualties are to be prevented. The projected increase of shipment of

many new hazardous materials, in larger and faster tows makes such a study and promulgation of necessary regulator controls vital to safety in these waters.

The urgent need for licensing personnel operating towing vessels is highlighted by the Board's "Summary of Reasons for Licensing Operators":

1. Our analysis of Coast Guard casualty statistics for uninspected towing vessels shows about one-third of these casualties are caused by personnel fault.

2. Unlicensed towing vessel operators were involved in twice as many collisions as were licensed operators of uninspected towing vessels, but the relative number of these two categories of personnel are not known.

3. About 40 percent of the casualty reports reviewed by the Board were attributed to personnel errors, compared with 19 percent attributed to material fault.

4. A number of these reports revealed the need for more competent operators, knowledge in the Rules of the Road, and in the safe handling of hazardous materials.

5. Possible administrative action against the towing vessel operator's license would have a deterrent effect on negligent operations and afford more protection to other licensed maritime personnel and the public along the waterways.

6. The predicted increase in varieties, amounts, and speeds of shipments of hazardous materials will aggravate the need for more qualified towing vessel operators.

On March 19, 1972, a barge containing four cylinders of poisonous liquid chlorine was one of four barges that broke loose about 5:15 a.m. when a nine barge tow ran aground at the head of Shippingport Island of Louisville, Ky.

The chlorine barge contained 640 tons of poisonous chlorine gas and became lodged in a precarious spot near the gate of the McAlpine Dam.

The following excerpts from local newspapers of the area show the extensive danger as a result of this accident:

The *Courier Journal* of March 21, 1972, had an article which stated: "Robert Stewart, an engineer at the school (Speed Scientific School of the University of Louisville) calculated that *if all four tanks were to rupture simultaneously, a cloud of chlorine gas two miles long, one mile wide and 1,000 feet high could be created.*" (Emphasis supplied.)

The *Courier Journal* and *Times* of March 26, 1972 had an article which stated:

"In a stormy meeting at Louisville City Hall last night, local officials charged that federal agencies coordinating salvage efforts on the chlorine laden barge stuck in McAlpine Dam have not properly informed them of the potential danger so they could prepare emergency plans.

"At one point during the 2½ hour session, Andrew Broaddus, Louisville Jefferson County Civil Defense director said "*Our evacuation plans are nil.*" (Emphasis supplied.)

"Fifth Ward Alderman Bert Heuser, Sr., who was acting mayor in the absence of Mayor Frank W. Burke yesterday, started the meeting

by saying 'We anticipate that the barge may slip off the dam and burst and we'll have to evacuate 750,000 people.'" (Emphasis supplied.)

"The Environmental Protection Agency (EPA) has been monitoring the area around the barge for chlorine leaks.

"EPA official Robert J. Bowden also noted yesterday that tests of the New Albany City water supply—the intake for which is three miles downstream from the chlorine barge—have uncovered no evidence of chlorine.

"While chlorine would be 'very damaging to the river and toxic to the fish,' Bowden said, 'spilling it into the river would be preferable than leaving the gas in the air.'

"If chlorine did escape into the water, the New Albany water supply intake could simply be closed until the danger passed. The Indiana City has a two day supply on hand at all time,' Bowden said."

The *Courier Journal* of March 28, 1972 had an article which stated: "New Albany Mayor Warren V. Nash yesterday asked the State Adjutant General to activate 200 National Guardsmen as a precautionary measure.

"While efforts focused on the chlorine barge, Admiral Siler and Louisville Mayor Frank W. Burke expressed concern for river safety standards.

"Burke, noting a number of recent barge mishaps in the Louisville pool and elsewhere on the Ohio River, said it appeared that present safety standards 'are themselves inadequate or they are not being enforced.'

"Asked if he planned any specific action concerning the mishap at Louisville, Burke said a 'first step would be to talk to the Coast Guard and the Army Corps of Engineers.' He also indicated that it may be necessary for Congress to look into the problem of safety on the rivers."

The *Courier Journal* of March 29, 1972 had an article which stated: "In another development yesterday, the Louisville Times reported 'Authoritative sources disclosed that the barge loaded with chlorine and sulphuric acid were illegally positioned in the tow when it broke up.'"

The *Courier Journal* of March 30, 1972 had an article which stated: "Louisville and Jefferson County schools will be closed on the day salvage operators attempt to stabilize a chlorine laden barge lodged at McAlpin Dam,' Mayor Frank W. Burke said yesterday."

The *Courier Journal* of March 30, 1972 had an editorial which stated:

"There were about 1,000 transfers of hazardous materials in the Louisville zone of the Ohio River alone, during the last three months of 1971. But even during the current chlorine scare, the public remains only vaguely aware that potential petrochemical bombs parade up and down the waterfront each month."

The *Courier Journal* of March 31, 1972 contained an article which stated:

"More than 4,000 persons will be evacuated from the area within a mile of Louisville McAlpin Dam before noon tomorrow when work possibly will start on stabilizing a chlorine laden barge lodged on the dam.

"The evacuation plan and protective measures, outlined by Mayor Frank W. Burke last night after day long meetings with City, County, State and Federal officials are to be in effect for at least 24 hours until noon Sunday.

"A telegram was read from Kentucky Senator John Sherman Cooper who expressed his concern over the crisis and urged Burke and Hollenbach to guard against the worse possible consequences of a chlorine gas leak.

"Cooper said he also had expressed his concern to a White House aide of President Nixon and to Governor Wendell H. Ford.

"The White House Aide said that Mr. Nixon had been receiving twice a day briefings on the barge situation, a customary procedure under such circumstances, according to Cooper."

The Louisville Times of April 20, 1972 contained an article which stated:

"Barge accidents on the Ohio River have been frequent occurrences in the past few months.

"Counting two mishaps today, one at Louisville and the other downstream at Cannelton, at least seven separate incidents involving barge collisions, sinkings or explosions have been reported since last October.

"October 26, 1971—Several barges containing the highly volatile chemical compound methanol exploded near a bridge spanning the Ohio at Brandenburg, Kentucky, about 40 miles southwest of Louisville. The explosion followed a collision of barges from two tows. It shattered windows in nearby homes and the barges burned for hours before the flames were brought under control. No one was injured.

"January 7, 1972—Two men were killed, two bridges damaged and two cities along the river bombarded with debris when two barges collided and then exploded beneath a railroad trestle spanning the river at Belpre, Ohio above Cincinnati.

"Nine persons were injured as a result of the accident. The two vessels, both carrying gasoline crashed into each other as they were being emptied beneath the bridge, which connects Belpre and Parkersburg, West Virginia. The force of the explosion could be felt as far as 19 miles away observers reported.

"March 2—Four barges sank after a tow struck the Clark Memorial Bridge at Louisville and its 11 barges broke loose.

"The four sunken vessels have not been recovered as yet, but the other barges were retrieved.

"March 11—A towboat propelling 12 empty barges ran aground at 13th Street in Louisville when a gust of wind blew the tow off course. The towboat struck a 150 foot high electric tower at the water's edge, bending the tower almost to the ground and interrupting the power supply to several local radio stations, some of which were off the air for more than an hour.

"March 19—The accident involving the chlorine barge occurred. The vessel was part of a nine barge tow that was turned crossways by heavy winds as it entered the navigation channel in Shippingport Island. While the chlorine barge lodged in a gate of the McAlpin Dam, another barge in the tow, containing sulfuric acid struck against a wall protecting generator intake openings at the Louisville Gas

and Electric Co. hydroelectric plant next to the dam. That barge also was removed, although for a time it caused three of the plants' eight generators to shut down.

"April 16—Twenty-one empty barges broke from their mooring at a marina near Newport, Kentucky but were recovered with no serious problems.

"April 18—Five barges tied to a mooring at a construction site of Interstate Highway 471 bridge between Newport and Cincinnati broke loose and began floating downstream. They were retrieved by tugs within two hours.

The *Louisville Courier Journal* of April 22, 1972 had an article which stated:

"Pilot lost as barges burn. Hawesville, Kentucky—The Ohio River burned bright orange last night at the Cannelton Dam as flaming gasoline continued to leak from a barge that smashed into the dam at 4:05 A.M. yesterday.

"Pilot R. W. Griffin, 58, of Brockport, Illinois is missing as a result of the accident and two members of the crew were hospitalized.

"Corps of Engineers officials estimate as much as 3 million gallons of gasoline and diesel fuel may have been dumped into the Ohio. A powerful odor of gasoline hung last night over the river and downstream towns as far downstream as Rockport, Indiana, 25 miles to the west.

"The towboat's engineer, Bob Haynes, of Bowling Green, Kentucky was credited with saving the lives of the eight crew members other than the pilot, who apparently was lost overboard when the towboat and two barges went over the dam.

"Finding the pilot house empty, Haynes took control and steered the boat away from a mass of flames that developed below the dam.

"Both Miss Mercer and John T. Dorr credited the engineer, Haynes with saving their lives after he had steered the boat away from the flames below the dam.

"Miss Mercer had been knocked into the boats' hold when the craft went over the six foot high falls between the two levels of the river here.

"Waves of water crashed into the hold, quickly threatening her with drowning.

"'I was sure I was drowning,' she said later in an interview in her hospital room. 'Bob Haynes came down and pulled me out.'

"Dorr also credits Haynes with saving his life.

"'I was asleep when all this started to happen but Haynes came in to wake me up and then helped me get into a life jacket, Corr said.'

"Haynes has spent the last 25 years on barges and tugs. He made little of his own actions but praised Griffin, the boat's pilot who was missing.

"For two hours after the accident a three mile stretch of the Ohio was filled with floating islands of fire. Witnesses reported thick black smoke covered the river from west of Tell City (about five miles from the accident) to the dam.

"The explosion blackened three of the dams huge metal and concrete gates but Corps of Engineers officials had not determined total damage to the unfinished structure. The dam about 80% complete before the accident is being constructed at a cost of more than \$70 million."

Need I say more.

Mr. Chairman, distinguished Committee members, I urge that this bill, H.R. 6479 be amended to include the principles of H.R. 4177 and H.R. 4178.

Senator LONG. Do you have any additional data of accident records, matters of that sort, showing the need for safety—the safety need for an engineer on towboats?

Mr. COLON. Well, in this testimony that is quite necessary are further examples for the needs of towboats. If I could read for you the excerpt.

Senator LONG. I just suggest that you submit that for the record in connection with your statement.

Mr. COLON. Yes; I will.

Senator LONG. Now, why do you oppose a 10-month study to determine whether engineers should be required on towboats?

Mr. COLON. The 89th and 91st Congress has held extensive and comprehensive hearings, studies, and investigations of the need for inspecting and manning of towboats. It is long overdue. And there aren't any real practical reasons for continued studies when there are reams and reams of material in the congressional records.

Senator LONG. Do you think there is any question whether the man at the wheel should be licensed?

Mr. COLON. Our position is that it would worsen the situation by only licensing the pilot, because you really need inspection of the towboats and you really need the manning and certification of the crew members, and these are key factors.

We don't want to lull the public into false sense of security that they have adequately and safely protected themselves from these dangers.

Senator LONG. Thank you very much, gentlemen. I appreciate your statement here today.

Now, the next witness will be Mr. Robert Alario, who will speak for the Gulf Offshore Marine Service Association.

Do you have a copy of your statement, Mr. Alario?

STATEMENT OF ROBERT ALARIO, GULF OFFSHORE MARINE SERVICE ASSOCIATION

Mr. ALARIO. No, sir; I don't have it with me. It is in my luggage somewhere between here and Atlanta.

I did manage to salvage the notes, and I can make a summary of my statement.

Mr. Chairman, members of the committee, I am vice president and chairman of the Offshore Marine Service Association, an organization of approximately 65 companies which provide marine transportation and other services to the offshore oil industry, primarily, and in the Gulf of Mexico, but also in other inland and offshore areas of the United States and internationally.

A large number of these associations operate towing vessels which will be acutely affected by the proposed legislation.

We are appearing today in opposition, at least qualified opposition, to H.R. 6479.

We find ourselves in a difficult and unfortunate position of opposing this bill out of necessity. Not on the basis of its well intended merit, but because of the timing and because it would result in an inequitable application of the same regulations to two dissimilar industries.

This bill intends to impose certain regulations upon towing vessels. We do own and operate towing vessels.

The inland people also own and operate tug vessels.

Yet, it should be noted and emphasized that our method of operation and the area of operation is distinctly different and our vessels are different, the skills and knowledge are different, and the type of work we perform is different in many respects.

Furthermore, this bill was primarily designed to cover U.S.-flag vessels operating domestically, yet many of our vessels operate internationally in a specialized service, and here we point out the ramifications that were largely and wholly disregarded in the research and development of the bill.

In short, a review of the legislative history of this bill will show that it did not include basic consideration of this segment of the industry originally, nor was a sufficient indepth study given to the problems as they appeared later.

The above statement is not made with the intent to reflect on any unwillingness on the part of those drafting the bill.

It tends to point out a lack of awareness of the industry as a whole and overall the complexity of the problems involved which cannot be resolved or alleviated by superficial and theoretical treatment despite the fact that this was made in good faith.

The fact remains that the end result is inadequate.

The stated intent of the bill is to provide for the licensing of pilothouse personnel on towing vessels with a view toward improving safety, and with this we certainly will not disagree.

We naturally support the concept that we must always continually strive to improve safety, however we do take exception to any implication now that we are horribly unsafe.

We have listened to witnesses and others cite statistics of accidents caused on the rivers as a result of pilot error, assumed to be due to the lack of licensed pilothouse personnel, the supposition being that unless you have them licensed, you are greatly increasing the possibility of accidents.

This is true, perhaps, but with these examples in mind, and before we allow this to deteriorate into an exchange on statistics, I would like to cite the accident involving, for instance, the *Union Faith* and *African Star* recently.

These were involved in accidents which involved other vessels without personnel. However, the *Union Faith* and *African Star* had licensed officers.

In San Francisco, there was a recent collision of two tankers, both having licensed officers at the helm.

Recently in New Orleans, a vessel collided with the St. Bernard locks.

Six of these vessels involved which I have just cited or referred to has licensed officers at the helm, yet we do not feel we can make a substantial argument with the fact that having a high licensed officer above greatly increased the possibility of these accidents.

In all fairness, we must accept these as exceptions to the rule, and if so, why can we not accept the citations, as exceptions to the general rule, not ignoring, but just accepting a large number of them.

With this in mind, I would like to state that we feel we have an enviable safety record, speaking at least for the towing industry.

I cited the fact, for the towing companies which I contacted going through their records, a combined total of 56 years of experience in towing offshore have a record of not one single fatality due to pilot error or absence of licensed personnel.

With regard to inland towing, statistics, if you want statistics, published by the National Traffic and Safety Board indicate that for a billion ton-miles was 0.54 while the fatality rate of the rail freight service per billion ton-miles was 2.5, and the same for motor carriers was 10.8.

My question is how safe is safe?

We submit the concept of safety is so relevant that it in itself becomes dangerous.

I will pass over for the sake of brevity the fact that we did support in principle—I will touch on it—we supported in principle the concept of licensing pilothouse personnel last year in the House hearings, and perhaps we could touch on that later, but for the sake of brevity, I will skip over that now.

This bill or a similar bill has been introduced in the Congress for several years now. We supported it, as I said, in principle, although we do still maintain our position that licensing engine room personnel is not necessary at this time because we feel it has no correlation to the concept or to the fact that it will improve safety.

We maintain that position. We will skip the examples of this. It will be included in my written statement.

Our point is, we accepted pilothouse personnel licensing on the provision that more practical and where necessary, all examinations would be developed and administered, since it was and still is virtually impossible for the great majority of our people to successfully pass existing Coast Guard regulations.

This has nothing to do with the mistaken belief of our people being superior to anyone with a license. But the examinations, I think, admittedly are too technical, theoretical, and complex. They are a conglomeration of examinations which have been handed down which deal not with present requirements and have been added on to provide for certain more recent requirements.

But, even educated people have difficulty passing these examinations, and that is a fact. The failure rate is disturbingly high.

Now, we cannot afford, nor can the people who are involved afford to be prevented from holding this job, or from performing their task in the industry's requirements simply because an examination is too difficult or too impractical to be applied to the existing situations.

Now, I think that we have touched on the fact that the Coast Guard has made some attempt to accommodate certain peculiar requirements of this segment of the towing industry.

But, the key to success, whether this bill is enacted now or later, is the quality and reasonableness of the licensing examination itself.

Now, this action will insure both that the objective of safety is accomplished, and meanwhile that people who have earned a place and

shown competence otherwise are not penalized just because they do not have the license.

You will surely agree that examinations given to people into a highly specialized field can hardly be written by people themselves unfamiliar and unskilled in that area, and this has been the case until now, at least with regard to our operation. Only very recently, due to the action of one of the other committees of the Senate here, has some valid cooperation between industry and the Coast Guard in the examination of research and development begun to surface.

There has been some other contact, but primarily this was what brought it to a head. This will take at least a year, I think, to show results, and even those who are in favor of this legislation, despite the obvious objections, cannot possibly support its passage at any cost.

We should give time to seeing how this will eventually improve that requirement.

As a result of the several prior consultations on the subject, and previous hearings, certain necessary accommodating provisions were included in the proposed regulations which now exist, designed to meet these reservations expressed previously, regarding the inability of our people to pass the examination.

However, we pointed out in the past year we have further studied the numerous statutory and practical ramifications of this bill, and the proposed regulations from the standpoint of their physical implementation.

We have observed that the attempts made in the interim by the U.S. Coast Guard to put into practice a number of procedures conforming to the guidelines which they offered as a means to solving or resolving the admitted problems, and we find unfortunately, based upon actual results, the facts have necessitated the conclusion that for reasons not necessarily within their control, the Coast Guard has been unable to put into practice their proposed theory, and it was not possible to supply most of the principles on a limited basis, then what realistic change would there be to require it on this bill.

An amendment was added to the proposed regulation, and theoretically, this should have solved most of our problems, and kept everyone happy.

But, we have found that in actual practice, it does not and will not. It is insufficient.

Now, if we are to be objective and farsighted in our consideration of this proposed legislation, we must be willing to separate practice from theory.

We must face reality.

Gentlemen, I submit that despite what Flip Wilson says, what you see is not always what you get.

And, seriously, I don't think the question is whether this bill can be enacted and implemented. It can.

The question rather is can this bill be implemented in such a fashion that the desired objective to safety is achieved without creating great problems and inequities which could achieve the degree of success which could be expected from the bill in its present form.

If we accept the premise, successful implementation does not mean regulations, but regulations with success, with results, then we submit

that the legislation as presently researched and developed will not necessarily achieve a desired objective to this degree, and justify the burdens that we have placed upon the towing industry, and in particular segments of the towing industry which have been largely, if not totally, overlooked in the original development of the bill.

Now, in conclusion, if we say this bill, or at least the procedure that is being followed, is not the correct way to best solve the problem, then what do we suggest?

Consider the following: The standard procedure in a case such as this is to enact the legislation first, leaving the enforcement to a designated agency of the Government.

The situation is that the desired end will be fulfilled.

However, we must also consider the possibility that the desired end will not be achieved.

Therefore, the approach above would be invalid and extremely risky, not to mention being costly.

To experiment with legislation will create burdens which will operate the degree of safety which would be achieved. This would not be consistent with the automotives.

Why not then first develop tests and prove detailed workable and practical examinations and the attendant regulations which would save the requirements of all situations more fully, rather than to depend upon accomplishing this end through outlines of intent which may never be applied.

The difference is simply one between concrete result and mere expectation.

What we propose is that the regulations should be reviewed with a view toward identifying and understanding more properly all of the important physical ramifications and consequences which will inevitably follow this enactment, promulgation and enforcement of the bill.

We submit that has not yet been done.

What we propose is that the Coast Guard, as an agency, prior to the enactment of this bill, work up and test a full detailed set of examinations and regulations, in cooperation with the affected industries.

We emphasize there must be input from the industries involved, to provide certain peculiar differences, and here I refer back without repeating the fact that just recently in connection with one of the committees here the Coast Guard has worked up a program of this type and I think we will make some headway.

So once this has been done, we can all be assured of a high degree of success in accomplishing the safety without creating these unnecessary burdens, and the result would be one that would constructively promote the industry rather than one that will simply regulate it with a negative effect.

In conclusion, may we respectfully submit that this bill like many others may be extremely desirable and important, but like many other pieces of legislation from your experience, it may not be feasible or worthy of anticipated expectations for reasons equally as important, and beyond your control.

In any case, we feel we have put the case in the hands of an objective and experienced committee and group, and we are certain that

this position of ours will receive your careful and considered attention before any final action is taken.

I realize that some other associations and others here have expressed their willingness to accept this piece of legislation, with certain provisions.

We can't say treat them this way and treat us another. We can't say exclusion in a practical fashion, which we readily admit we are not prepared to do, we do not yet know how we can separate ourselves, since we operate primarily offshore, but still have an overlapping into inshore operations.

We can't say treat them this way and treat us another.

So, we are forced of necessity to say that because of the circumstances, and the legislative history here, until full consideration is given to every one that will be affected by this piece of legislation, for whatever reasons it might not have been done, whether industry's fault, Coast Guard or the other people involved, that is irrelevant, then we feel that the results could be disastrous, and we don't want to oppose it at the expense of the people involved.

They deserve their protection as well.

I am open for questions, gentlemen.

Thank you for your time.

Senator LONG. How many employees are involved insofar as the offshore marine industry is concerned, that is, the offshore drilling and servicing industry, drilling, servicing, laying pipelines, that sort of thing?

Mr. ALARIO. Over 20,000 in that particular industry, Mr. Long. However, Senator, I think related to the towing facet of it, we estimate that we have approximately 600 vessels, averaging anywhere from six to 10 men, depending on whether they are operating offshore or inshore. However, I think it goes far beyond that into the supportive industries related to the towboat limit.

We are talking about a good number of people here.

It is impossible, in such a short time, to point out all the ramifications fairly and objectively and I feel I might have taken an unhealthy swoop at the Coast Guard perhaps. They have been cooperative. It is just as I said, these things are too complex to be handled overnight and I say overnight. This has been before us for many years but it is still not enough.

Senator LONG. One of the problems that I have been confronted with and I know you are aware of it, is the fact that we have a lot of people in that business operating out of Morgan City and perhaps the Grand Isles, maybe some at New Orleans and other parts, who are magnificent ship handlers and do a great job but can't pass a written test and they freeze up when they are confronted with an examination sheet. But if you put them out there and put them to a practical test, the same thing as if you took an automobile driver out to see how he can perform, from practical application, they understand a hundred percent how to do it and they do a very good job of it and they have never had an accident or come close to one.

Mr. ALARIO. That is correct, sir. This is an article in a recent magazine and in the Maritime Administration's Journal, a man with a third grade education, who happens to work for our company. He was

sent overseas. He cannot read, nor write. He has just recently received a Coast Guard commendation, the maritime administration's second highest award. He is under consideration for the British and Norwegian Government's highest awards for seamanship. The man saved 11 lives in the height of a storm in the North Sea just recently and I am fully prepared to say that at this time, the existing examination or any examination that would have to do with celestial navigation, what have you, would take years, months, a year or more, to even prepare this man to take the examination.

We don't leave these men alone to do their jobs. We have licensed navigators aboard the vessel when there is anything complex involved. But as ship handlers, boat handlers, this man has 18 years of experience. To lose a man like this because of a technical question—although we are working on this, we have not reached the point where it is effective in application yet it is absurd.

Senator LONG. What decorations has he had?

Mr. ALARIO. He received the Maritime Administration's second highest award. He received from the oil company and the other vessel company that was involved in the accident—it was a British supply vessel sinking and it was 4 o'clock in the morning, 25- to 30-foot seas, he plucked 11 men off rubber life rafts, one by one, and got the captain off the vessel about a minute before it sank. This is a man with a third grade education. Unable to pass the examination, but I think his competence has been illustrated.

Senator LONG. Would you venture the assertion that people who have a college degree might not have been able to do that same thing?

Mr. ALARIO. I could not have done it. I can't even stay on the boat long enough to do that. But the point is, we can cite examples, both for and against this, and this, I think, is, of course, secondary to the fact that although we don't want to generate this subject, there is a mistake. There is an innate quality in these men. The fact is they have been born and raised on vessels. They have the experience in the field to do this particular job. We maintain again that the work that is being performed out there is not necessarily the same thing as taking a tow up and down. This is something entirely different.

As for competency, the Norwegians and English who witnessed this thing said that they have never in their life seen boat handling and seamanship of that type in their lives.

I think, perhaps, Senator Cook is a little bit perturbed.

Senator COOK. I got the report in front of me, Mr. Alario. Does this man have all this knowledge and all this ability in his head? Does he have it right up here and knows how to do it, that you are talking about?

Mr. ALARIO. It is experience, sir.

Senator COOK. Let me read from the House report:

Finally, it is intended that the examination given may, under appropriate circumstances, be oral rather than written, in order to accommodate individuals, particularly those who will have been serving as towboat operators prior to the effective date of the licensing regulations, who for any number of adequate reasons may request an oral in lieu of a written examination.

There isn't anybody trying to take this man off his boat.

Mr. ALARIO. I recognize that. May I answer your question.

Senator COOK. The thing that bothers me about what you are saying, is that you said you have licensed navigators on these boats, but I don't think you ought to use this one great seaman as an excuse for why you don't want to have him licensed, because orally he can get licensed.

Mr. ALARIO. I am not saying we do not want to have him licensed. On the contrary, we have a school within our company that is attempting to prepare them for licensing, No. 1. No. 2, we have attempted to license our seamen despite the fact that we have not been required to do so. No. 3, we state again that it is not a question of the theoretical attempt to make it possible for people like this to retain their jobs and be licensed simultaneously, because we accept the fact that if these men could be trained in perhaps a little more of the sophisticated elements of seamanship, they would be improved and they would be of more value to us. But, No. 5, we state our opposition is on the basis of the physical implementation and the ramifications attendant upon actually getting it done.

The experience has been that this has been almost impossible. This man is in the North Sea—I will give you the example. We asked the Coast Guard this question 2 years ago. Can we get this man, if we train him and tutor him, to take the examination in England or in Norway or what have you, wherever the Coast Guard Attaché's office might be. The answer is we do not have the money or the personnel to accomplish this at this time. We would have to look into the matter. The man would have to be brought back to the United States, tutored and trained and sit for examination which takes 4 to 5 days. We would have to replace him with another man, probably unlicensed. The same thing would be going around and round. The majority of people who are overseas would have to be brought back to the United States in order to take the examination.

In order to do otherwise, it would require money, time, new Coast Guard personnel. So I say why not prepare a license examination now that will be tested.

Now just say that we are going to give them oral examination because they have been trying it in New Orleans for the last year and it has not worked to a degree comparable to what the theory was.

Senator COOK. Who are they going to test other than the people who have to take them?

Mr. ALARIO. They have tested on people who had to take it and we made the request for oral examinations to be given to people who did not have to take them and again I point out, because of an unawareness on the part of people who are not involved in the business, that the physical ramification is that a man working one of my vessels who does not require an examination at this time can only sit for one license that will be of any service to us aboard a vessel of this type and it is a 300-gross-ton oceans examination.

If a man on the river takes an examination, he is qualified to work that river. A man in my industry is licensed for the Gulf of Mexico, 100 miles offshore. If that man receives orders tomorrow to proceed to the coast of Canada or to the New York coast or the west coast, that license is invalid and of no use to the company. If he is licensed to operate that one single vessel, it is not valid because they transfer

from one vessel to the other every 7 days normally. If we have to license people for one vessel, it means not one crew, but two crews, because we work 14 on, 14 off. These are the physical ramifications that I am speaking about, Senator Cook, that on the surface do not always appear and make the job of doing a different thing than of saying.

I wish we didn't have to oppose it on that basis at this time.

Senator Cook. Mr. Alario, haven't you been putting these same points into the record, or your industry, since 1962? This is when these bills started. If this is the case, obviously, I would hope that this committee could sit down and establish a quid pro quo to take care of those situations. But, for instance, when I heard you say that all of these things should be tested, not just particularly the licenses, but other provisions, there is only one way we could satisfy you in relationship to your testimony. If we came up with one that said this is what a barge ought to consist of or an offshore vessel ought to consist of, we would have to put a grandfather clause in it. Everything you have right now would be all right and then we would start from here.

Mr. ALARIO. There is a grandfather clause in there already. I am saying that regardless of the reason why it hasn't been done—I am not here to dispense with the responsibility of the industry in failing to meet certain of its own obligations. What I am saying, Senator Cook, is on the basis of the evaluation of the requirement at this time, I don't think that by going into it with the attendant objections and problems which have not surfaced that the goal that you seek to achieve will be successful or achieved to the degree that we want.

Senator Cook. What I can't understand is you have only 26 steam operated vessels on the western waterway system right now, and every one of them have to be licensed.

Now, they have to compete every day on that river with everything that isn't licensed. Not only do they have to be licensed, but they have to be inspected, and this is something I do know all about, because our community owns the *Belle of Louisville*, which used to be the *Idlewild*, and every year before we put anything on it, these guys come from St. Louis and go over it. That usually costs \$70,000 or \$90,000 and we have to replace plates all over the bottom, yet a big tow can come right by us while we are being inspected, and there can be holes in the bottom of those barges. They can have 15 cells full of water and there isn't a thing in the world the Coast Guard can do except wave to the guy and see him go on down the canal and go on into the locks.

Now, will you tell me how there can be any logic in that?

Mr. ALARIO. I am afraid there isn't a great deal of logic whichever way you go with this thing. We are a minority group. You are speaking of inland transportation. I can't argue that point because I will admit frankly that I am not as familiar with the inland problem as I am with the combination of inland-offshore operations. That is a case in which I am stayed. What I am saying is I hope we can accomplish both and I think if we waited this long and we finally are on the threshold—you said since 1962. You are right, since before that. But valid progress has been made that I think we are on the threshold of

actually doing something. If we came back with the same gripe next year, then I think you can fairly slap some hands and say nothing has been done.

Senator COOK. Well, let me say this: I have all the respect in the world for this great pilot who can't pass the examination. He might have to be taken out of the North Sea, and it may be he might be out of your service for a while, but that man isn't anywhere near as important as what could have occurred in Louisville with an unlicensed guy who was going in that canal at night when a barge broke loose full of chlorine gas. If the gas had escaped, it would have been 2 miles high, and it could have destroyed the population of that city, and it would have conceivably been possible to have had to evacuate 750,000 people.

Mr. ALARIO. I don't think anywhere in my testimony you will find me saying this should never be done. I think we should do it more correctly.

Senator COOK. You gave the loss ratio with your business and with the trucking business. Well, the trucking business is out on the highway where there is a few million other automobiles. He is out there where the driver is not only licensed, but his vehicle is licensed, inspected. He can be stopped anywhere he goes. When he goes in interstate commerce and comes across the Pennsylvania Turnpike, the first thing he does is go in for inspection or weight regulation. All of these things he had to do. He has to insure his ratio of loss, because he is out on the highway with a few million other objects, and you don't have that problem, so I don't see that comparison.

Mr. ALARIO. It is the same comparison we make with offshore and inland operations. The volume of traffic and probability for danger in the river is a great deal higher than in the offshore operations. So we could statistically debate this thing, you know, forever. One pair of feet will take a size 8 shoe, and another pair won't, but they are both feet.

Senator LONG. I recall that when I was in the service I almost flunked out of midshipman's school because I had almost flunked out of mathematics, notwithstanding the fact I had two college degrees before I went there. When I then proceeded to take an LCT during the war, I never used celestial navigation the first day. In fact, it wasn't my fault, really, that nobody ever put a sexton in my hand, or never put one aboard the ship I was on, so that I never had a chance to use it a day.

Now, if someone had known that I was going to be operating an LCT over there, they could have taught me a few things about ship handling that would have made me a far more effective officer to discharge the responsibility I had. There were fellows who never graduated from high school handling the same type ships over there, boat-swain mates, who knew more about how to maneuver one of those things than I did. One simple thing nobody ever taught me—all the stuff they taught me, I didn't need to know. All the stuff about all these 14-inch guns and one thing or another. The nearest thing we had was a 20-millimeter popgun, you might say.

They started out teaching us how to navigate the way Magellan did, then you work up from there. You finally get this book that has these

things computed before you. But I didn't have any use for any of that when I went overseas, and I had the responsibility with an amphibious boat in the service.

Now, isn't that problem sort of parallel to what one of these boys is up against? He knows everything he needs to know? Some guy just out to teach him that if you have got to maneuver into a close area, just back your engines, and come to a halt before you go ahead into a tight situation, and you won't tear your boat to pieces if you do hit something. Nobody ever taught me that. That is one of the first essentials of ship language nobody ever taught me. But they did teach me all sorts of things for which I had no use at all.

Now, you turn on your radio down there around Grand Island, and you hear all these French men talking language that is amusing to anybody to hear. I am not sure a Frenchman or an Englishman can understand what they are saying to one another. Those fellows do a great job out there. They are the best in the world in that offshore operation. They are doing it because they are better.

Aren't your men confronted with that situation when they are asked to take a written examination with all sorts of things that they are not really dealing with and don't have to handle ordinarily?

Mr. ALARIO. That is right, sir. This is what I was trying to explain to Senator Cook. We are not in opposition to qualifying these men. We simply want to work out now something which will be satisfactory to the Coast Guard and to the people who are interested in safe navigation, but at the same time, make it a practical, reasonable examination, that will not sacrifice competent people.

So it is as simple as that. We don't feel that what has been developed to this time is satisfactory.

Senator LONG. Would you mind telling me what you told me about some lifeboat problem as an illustration?

Mr. ALARIO. As an illustration, we were told that as a practical matter, if you have a problem, which is reasonable and logical, then all we have to do is submit in writing, and preferably in legislative language, so that it can be inserted where necessary, and an action can be taken, the statement of your problem, how it should be solved.

One small example was that aboard our vessels we are required to have able-bodied seamen with lifeboat endorsements.

Ironically, none of our vessels, or let's say, 99 percent of our vessels do not carry lifeboats. We have liferafts.

So our contention was that if a man is working aboard a vessel that does not have a lifeboat, but has a liferaft, he should necessarily need the endorsement for lifeboat men because his service would be strictly to a vessel without a lifeboat.

Now, we are required to have two able-bodied seamen normally aboard these vessels, and if they don't have the endorsement, and the training facilities were not available, and the examination was not available on a regular basis, the Coast Guard has made some attempt to improve that, but finally we were submitted the thing. And we were told at that time, 2 years ago, that they saw no objection, or there seemed to be no objection.

If you had no lifeboat, you didn't need an endorsement. We continued to train them in lifeboatmanship in just this case, where it

could happen, but you should not tie a boat to the deck because there was no endorsement. We were told about 2 months ago that the thing had been shelved because of controversy and question and that we would have to continue to use able-bodied seamen with lifeboat endorsements until further notice.

I think it involves the international conventions, and also some pressure from diverse interests. But nevertheless, we tried our best to solve a relatively small problem which ended up costing us money. It hasn't been able to work in practice. Although, in theory, it was suggested that was all it would take, and I am suggesting we will have more of that.

Senator LONG. Did you have a problem come up involving a refrigerator, the qualification to repair a refrigerator?

Mr. ALARIO. Well, we have had instances. I dislike using this type of example, because we can pick all of the citations, pro this and con on that, but we have had many men fail examination, even after this concept of providing of the oral examination possibilities to our people, because the licensing officer may have been transferred that week and there was a new man and the other person did not have time to instruct properly the examining officer.

So the only examination is taken from a bank of 600 to 800 questions perhaps, some of them relative, many not. He will be asked questions about a steam engine or a refrigeration unit, or loading cargo aboard vessels, all of which do not pertain to the type of vessels that we operate, and the man fails the examination, and he has to wait 4 months or more to take the examination again unless you get special permission.

Again, here are the examples of the practical limitations as opposed to the theoretical, let's go ahead, we can do it, fine, yes. We intend to. There are practical obstacles that exist that are real and have to be contended with.

Senator LONG. If we could separate out the type situation involving the barges operating up and down the river from the operation that you have on offshore, do you think that that is a possible way of resolving this?

Mr. ALARIO. Well, yes, sir, it would. But again, in being realistic and fair, I would have to say that it would be difficult to again practically accomplish this. In theory, I would say this would be the way out. Let us be regulated under a different set of regulations, equally tough, if you will, as it turns out, but we will research, and prepare it on the basis of what our job requirements are, and what our safety record is, but when you try to do this in practice, I don't know exactly at this time today, although we are working on it now—we are working on the theory to see how it might be applied in practice—I don't know that it can be accomplished. I don't know that it can be accomplished practically, because some of our vessels when they come in for a storm, or to bring in equipment, which may not be a long string of barges carrying toxic materials or what-have-you, it comes into the inland waterway.

So how do you fairly distinguish or differentiate between that vessel from the standpoint of safety?

Senator COOK. You would have some of yours that would go substantially far up into an estuary, wouldn't you?

Mr. ALARIO. Some.

Senator COOK. You have some for instance that go all the way up to Baton Rouge, I expect, wouldn't you?

Mr. ALARIO. Not the offshore vessels. But the inland vessels. This is a different question. We are throwing a net around different types of operations, and it is a little bit difficult. It is restrictive legislation. But we could work that out.

Senator LONG. Let's see if we understand this. You do want the personnel operating your equipment to be qualified to handle the equipment, do you not?

Mr. ALARIO. Yes, sir.

Senator LONG. You try to see to it that is the case. You are doing that now.

Mr. ALARIO. That is correct.

Senator LONG. But at the same time, what you are concerned about is the application of examinations with information, surplus to what your needs are, and also the use of a procedure to which your people are poorly adept, such as a written schoolbook type of examination, an essay type question, things of that sort, when if you sat down and gave the fellow a chance to explain what he would do under a given set of circumstances, he can demonstrate he does know how to meet the problem.

Mr. ALARIO. That is right. And finally, the thing is, all of these examinations, even the modified, more simple examination that is being proposed right now by the Coast Guard, are being prepared, however, by people who do not have the experience for the input, or for the eventual final examination that will be evolved. It has to come through cooperation and coordination between the Coast Guard and the industry, and this is what we have accomplished just recently, that we are going to have people working on a day-in, day-out basis to consider all of these things, because I respectfully submit that these problems are a little bit more complex than can adequately be handled in a hearing or in all of the reams of testimony that have been given.

There have been many unfounded statements, including some of mine perhaps, but I state that with all due respect. It takes a day-in, day-out application of attention to the problem, and say, OK, now, how are we going to solve these things practically.

Senator LONG. Matter of fact, we have an understanding right now with the Coast Guard that they are going to assign some officers there, and hopefully to stay there long enough to where they understand what the problem is, understand the people and what we are trying to achieve, and help us to work out examinations and procedures suited to this industry so that these people can qualify for the jobs for which they are, for the most part, qualified already, without imposing a lot of needless regulations that might be good somewhere else, but are not relevant where you are, or for the type operation you have.

Mr. ALARIO. In conclusion, one thing I would like to point out: When you talk about the inland waterways, and the application of regulations to everyone there, I think I would like to point out that if I were competing strictly with a domestic company that had to

comply with the same regulations that were imposed upon me, I could justify this, and we could still be competitive. But with regard to the vessels that are employed in our service, we are competing intimately already at a disadvantage, and the only edge we have is a technological edge and the experience that we have had in the past.

We take that out, we are no longer competitive, and we are going to lose our position overseas, and these vessels are going to go to flags of convenience. It is not a threat. It is just a fact. That is what I would like to deal with here.

Senator Cook. I have some observations, Mr. Chairman. I think you are crying wolf too soon.

And second, Mr. Chairman, that boatswains mate may have known a hell of a lot more how to dock that vessel than you did, but if he did it wrong, you were the guy who got blamed for it.

And last, if not least, we have to talk about whether you are approving this vessel, or talking about a rowboat or a raft. You have the *Delta Queen* on the river. Every year, every one of their lifejackets have to be inspected, all the rafts have to be inspected. They made it. They are functioning. They are not tied up. The only time they tie us up is when they tell us we have to go into drydock and spend \$100,000 so we can make a vessel safe on the Ohio River, and then bank into a sunken barge.

Mr. ALARIO. Are you under the impression perhaps that there is no regulation at all with these vessels? We can't even take a tow unless we are approved and inspected. We can't take a tow without a licensed navigator aboard. We can't go without lifejackets.

Senator Cook. You live with that. I am sure these wouldn't be too harsh if we could work out the problem.

Mr. ALARIO. That is what we debate. That there is a limit.

Thank you very much for your time.

Senator Long. Now, the next witness will be Mr. Julian Singman, Washington counsel, accompanied by Mr. David Boyle for the masters, mates, and pilots.

**STATEMENT OF JULIAN M. SINGMAN, WASHINGTON COUNSEL,
MASTERS, MATES, AND PILOTS, MARINE DIVISION, INTERNA-
TIONAL LONGSHOREMEN'S ASSOCIATION; ACCOMPANIED BY
CAPT. DAVID A. BOYLE, REGIONAL DIRECTOR, WEST COAST AND
PACIFIC REGION, INLAND DIVISION, IOMMP**

Mr. SINGMAN. Good afternoon, Mr. Chairman. I am Julian Singman. Washington counsel for the masters, mates, and pilots, and this is Capt. David Boyle, who is a licensed master and is the regional director for our West Coast Inland Division of the masters, mates, and pilots. He would like to read a very brief statement, after which, with your permission, sir, I would like to make a few very brief comments on Mr. Alario's testimony, which I think would be helpful and relevant to the committee's consideration.

Mr. BOYLE. Mr. Chairman, I have some photographs here that I refer to in my statement. I would like to present them to you.

Mr. Chairman, the International Organization of Masters, Mates, and Pilots, AFL-CIO, the Marine Division of the International

Longshoremen's Association, AFL-CIO, represents masters, mates, and pilots employed in the tug and barge industry throughout the country, and even in areas throughout the world.

We strongly urge the passage of H.R. 6479 requiring the licensing of pilothouse personnel on certain towing vessels. This proposed legislation has also been endorsed by the American Waterways Operators as being urgently necessary in view of the ever-increasing hazards of large tows and highly dangerous cargoes.

The president of our organization, Capt. Thomas F. O'Callaghan, made a brief statement endorsing this bill before the House Merchant Marine Committee when the bill was pending there, and we would like to append that statement to this one for the record.

Under existing law, all towing vessels of less than 200 gross tons, except those propelled by steam, are exempted from the requirement of carrying licensed operators. The enclosed photographs are examples of modern types of towboats and barges being operated today. The giant tugs illustrated are of 7,000 hp., 136 feet in length, 34 feet in beam, 18 feet draft, 216,000-gallon fuel capacity, but are less than 200 gross tons with no requirement under the present law for licensing of their deck officers. The huge barges of various types shown exceed 400 feet in length and have a beam of over 100 feet. The giant petroleum barge has a capacity of 6,510,000 gallons of highly dangerous cargo. The capacity of this barge is one-third greater than a T-2 type tanker.

There are much larger tugs and barges than these presently being operated and even larger tugs and barges contemplated for the future. For safe navigation it is totally unrealistic to allow the operation of such huge marine transportation equipment under the direction and control of persons who have never been required to demonstrate professional knowledge as required by licensing regulations.

These examples clearly point to the urgent need of passage of this proposed legislation. No one can deny that its passage will increase the safety of our waterways. We who operate vessels throughout the world urge that shipboard personnel, vessels, cargoes, and innocent bystanders along our waterways be protected by immediate passage. We would not want to bear the responsibility of another major disaster on our rivers or in our harbors knowing that it could have been prevented had we done more to secure passage of this urgently needed legislation.

(The statement follows:)

STATEMENT OF CAPT. THOMAS F. O'CALLAGHAN, PRESIDENT, INTERNATIONAL ORGANIZATION OF MASTERS, MATES AND PILOTS, AFL-CIO IN SUPPORT OF H.R. 13987

Mr. Chairman, my name is Thomas F. O'Callaghan, and I am President of the International Organization of Masters, Mates and Pilots, AFL-CIO, with headquarters at 39 Broadway, New York City. I hold an unlimited Master Mariner's license from the United States Coast Guard.

Our organization is the oldest organization of professional mariners in the country. We have 12,000 members, including nearly all of the licensed deck personnel in America's ocean-going merchant marine and over 3,000 licensed members sailing our lakes, rivers and harbors. I am pleased to be here today to urge speedy enactment of H.R. 13987.

All of our members have vigorously supported Government examination and licensing of pilot house personnel on towboats for many years. The last time

this Committee held extensive hearings on this subject, in August of 1965, a representative of our organization pointed out that there was then ample documentary evidence showing that loss of life and property from the operation of vessels manned by unlicensed personnel was a serious problem. He warned that Congress should not wait until a major disaster occurred before this vital safety legislation was enacted.

Unfortunately, at least two such major disasters have now taken place that are directly traceable to the use of unlicensed personnel in the pilot houses of river towboats. As a result of the collision of the towing vessel *Midwest Cities* and the S.S. *African Star*, which has now been decorated by the Maritime Administration for the bravery of its crew in that disaster, twenty-one persons died. I visited with the survivors of that collision and saw the pain and suffering that this terrible tragedy caused among those who were fortunate enough to survive. Had the operator of that towing vessel been trained and licensed, there is little doubt that the collision would have been averted.

The same can be said of the catastrophe resulting from the collision earlier this year of the S.S. *Union Faith* and the towing vessel *Warren Doucet*, which resulted in the death of twenty-five persons, the loss of a freighter, and damage to the New Orleans-Mississippi River Highway Bridge. The man in command of that towing vessel not only did not know the proper Rules of the Road applicable at the point of collision, but admitted that he had never even read the Coast Guard's publication on the Rules of the Road.

This exemption from the Coast Guard's licensing requirements for personnel on diesel-powered towboats is an anomaly in the law that should have been corrected long ago. Indeed, if H.R. 13987 had been made law two years ago, forty-six men who were drowned or burned to death would probably be alive today. We think the time has long since passed when the Congress can afford to postpone any further, implementation of its obligation to protect lives, health and property on the inland waters of the United States. We urge this Committee, not only in the interests of our own men, but in the interests of the men we command and the property for which we are responsible, to enact this legislation without delay.

Thank you, Mr. Chairman and the members of your Subcommittee, for according me the courtesy of being heard on this most important matter.

Mr. BOYLE. Mr. Chairman, I also have a letter here written by Mr. Ken Ayre, secretary of the Towboat Association, addressed to me:

DEAR DAVE: We are pleased to learn you are to attend the committee hearing on the 27th of April, 1972.

As you know, the Northwest Towboat Association, representing 98 percent of the tug and barge industry, working out of Puget Sound, with more than 200 tugs operating in many parts of the world, strongly supports the licensing section of this bill.

We have for many years encouraged all our masters and mates, whether required by law or not, to sit for licenses, and have, indeed, inaugurated a program for underwriting the costs our employees incurred while procuring the licenses.

We have made many calls, written many letters, and have spoken with Representative Garmatz in support of H.R. 6479.

We sincerely hope the hearing you are to attend will result in the pilothouse personnel licensing section of the bill being approved.

Mr. SINGMAN. Mr. Chairman, I was delighted to hear the testimony of Mr. Alario, in that they approve of the basic principle of this bill. They do not object to the licensing of pilothouse personnel basically.

The difficulty, or hindrance, apparently seems to be their doubt that the Coast Guard can come up with regulations or testing procedures that would not unduly hamper their operations.

I feel confident that the Coast Guard can come up with a suitable type of examination and regulation in this field.

The Masters, Mates & Pilots, as an organization, has been keenly interested in the training and education of maritime licensed officers for many, many years, and through great efforts, we have established as a joint industry venture, with the cooperation of management and labor, a Maritime Institute of Training and Graduate Studies, which is located between Washington and Baltimore, and we are now training maritime officers after they have become licensed to upgrade their training with respect to loading of dangerous cargos, and with respect to the operation of radar and that kind of thing.

We have also cooperated with the Coast Guard in devising new types of examinations for licensed officers in order to replace the obsolete examinations.

The Coast Guard will admit, I think, that some of their examinations are obsolete and do need improvement, and we, Mr. Chairman, would definitely volunteer our service and volunteer our computers and volunteer our simulators at our Maritime Institute to work with the industry and to work with the Coast Guard to develop the appropriate kind of examinations.

We have simulators there, Senator Long, that could put a man in a darkened room at the bridge of a ship, in any harbor in the world, and let him simulate operation of that ship in and out of that harbor.

We are proud of that facility, and we would like to volunteer its service in helping to develop this kind of licensing, and we think it can be done.

Of course, there are men now operating on the rivers that could not pass written examinations. That is why we agree that there should be oral examinations, not just written examinations, that there could also be practical examinations, that we could take a man aboard a tugboat with an inspector and have him operate that boat to see if he is qualified. Also there is no doubt that there are differences in the types of skills that are necessary if you are running up and down the river within sight of the banks of the river at all times, or if, on the other hand, you are operating out at sea, completely out of sight of land.

Celestial navigation may not be necessary on the rivers, but it might well be on the gulf, or on the ocean, or offshore. We feel confident, having worked with the Coast Guard before, that they can develop the appropriate licensing measures and regulations.

We do urge, however, that this committee not wait until those regulations are devised before it enacts the enabling legislation for the Coast Guard to act.

The Congress cannot write these regulations. Under our constitutional system of division of powers, the Congress sets forth the legislation and the executive branch develops the implementing regulations under it, and we urge that that normal kind of procedure be followed in this case, and I am sure that everyone will cooperate to make sure that it happens.

Now, there is one other comment.

Mr. Alario made reference to the fact that in the case of the collision

of the *Union Faith* and the accident of the *African Star*, both of which, I think, Mr. Chairman, you are familiar with, since they happened in your State, that the men operating those ships were licensed men.

Indeed, that is true, but the other half of the story is that the tugs, the barges that those ships collided with were manned by unlicensed personnel, and as a matter of fact, I had the opportunity of sitting in on the Coast Guard investigation of the collision of the *Union Faith*, and you will recall that that collision took place under the Huey Long Bridge. The ship, *Union Faith*, caught fire after the collision and was drifting toward the New Orleans docks, ablaze from stem to stern. Had it not been for the fact that the pilot on that ship, one of our members, went forward to the blazing fore-castle, and dropped the anchor personally, and thereby lost his life, it could well have been that the entire New Orleans dock area would have gone up in flames.

Now, in that particular case, during the Coast Guard investigation, I heard the unlicensed skipper of the tugboat, that collided with the *Union Faith*, testify that he not only did not know what the applicable Coast Guard Rules of the Road were at that point, but he had never read the Coast Guard Rules of the Road publication.

Now, I submit to you, Mr. Chairman, men like that, however experienced, should not be operating dangerous cargoes on our rivers and harbors without some further training and examination.

Thank you, Mr. Chairman.

We appreciate the opportunity to testify.

Senator LONG. I would like to ask one or two questions.

One, how many members of your union do you have on towboats?

Mr. SINGMAN. We have approximately 3000, Mr. Chairman. It runs between 2,000 and 3,000.

Senator LONG. Would you favor making towboats subject to full inspection and requiring engineers on towboats?

Mr. SINGMAN. Mr. Chairman, we would favor that kind of legislation, but I must in all candor say, as Senator Cook pointed out a little bit earlier, this kind of legislation has been pending before the Congress in one form or another for more than 10 years.

We have pressed urgently this legislation for 10 years, and during that period of time, we have pressed for full inspection, licensing of engineers, licensing of pilothouse personnel.

It suddenly came to us that we were fighting an uphill battle, and we decided that we had better settle for half a loaf rather than a full loaf. If it means waiting another 10 or 20 years in order to get licensing or engineers certification of seamen and inspection of all boats and facilities, we say let's make that a second step. Let's license the pilothouse personnel, the men who direct the navigation of the ships first.

Senator LONG. Thank you very much, gentlemen, for a very fine statement.

Mr. SINGMAN. Thank you, Mr. Chairman.

Senator LONG. Thank you.

The next witness will be Mr. Robert J. Hughes, chairman of the American Waterways Operators, Coast Guard Liaison Committee, and president of James Hughes, Inc., of New York City.

STATEMENT OF ROBERT J. HUGHES, CHAIRMAN OF THE AMERICAN WATERWAYS OPERATORS, COAST GUARD LIAISON COMMITTEE, AND PRESIDENT OF JAMES HUGHES, INC., NEW YORK CITY

Mr. HUGHES. Mr. Chairman, my name is Robert J. Hughes. I appear before the subcommittee on behalf of the American Waterways Operators, Inc., to offer the views of that association in support of enactment of H.R. 6479.

With the chairman's permission, I would like to say a few words about the AWO.

The American Waterways Operators, Inc. is a trade association representing the national interests of operators of towboats, tugboats, and barges who provide transport services and ship berthing and other harbor work on the navigable waters of the United States.

Our members operate vessels on the inland waterways and over coastal and seagoing routes in all areas of the country. In addition to such vessel operators, AWO also represents shipyards who build and repair the type of equipment operated by our carrier members, terminal operators who serve water carriers, and certain service companies.

I am chairman of AWO's Coast Guard Liaison Committee. The committee maintains a constant working relationship with that agency in connection with its various responsibilities affecting our industry. My position with AWO is voluntary as a member of the association. I am president of James Hughes, Inc., 17 Battery Place, New York, N.Y., a company which is a certificated water carrier and has been operating on the east coast since 1894.

The board of directors of the American Waterways Operators, Inc., is made up of executives of the barge and towing industry, and other interests represented in the association, from throughout the United States. Its position on this legislation is stated in the following resolution:

In the promotion of navigational safety, the association urges enactment of Federal legislation providing for licensing of persons in charge of navigating towing vessels.

I appear before you to plead for passage of this legislation in response to the board's directive.

AWO has been on record with the Congress since 1965 in support of Coast Guard licensing of the men in charge of navigating towing vessels.

Members of AWO are convinced that in order to assure the safe navigation of towing vessels, while underway, such vessels should be under the actual direction and control of a person licensed for such purpose.

We support the provisions, without reservation, to require such licensing as contained in H.R. 6479. Let me emphasize that this support is from all areas of the country, not just one harbor or river valley, since any legislation enacted would apply to all areas.

Licensing per se of the navigator-operator of a towing vessel will not necessarily in itself make him a better or more responsible navigator-operator. However, with the proper examination for licensing, it should help. What will have an important effect on a licensed man

in this respect is the fact that he can be deprived of his license and his right to work by the Coast Guard's withdrawal of his license in cases where this is warranted.

A study of the Coast Guard's commercial vessel statistics for the years 1963 through 1971 indicates the high percentage of vessel casualties are caused by personnel error.

In 1963, 42.9 percent of all casualties resulted from personnel error; 1964, 37.9 percent; 1965, 35.9 percent; 1966, 32.5 percent; 1967, 43.7 percent; 1968, 46.6 percent; 1969, 47.3 percent; 1970, 54 percent; and 1971, 49.6 percent.

Because of inexactness in the description of personnel in the Coast Guard's commercial vessel statistics, an exact description of personnel causing the errors could not be obtained. However, our study of the statistics indicated that it is reasonable to assume that by far the majority of such casualties was caused by fault of the men in charge of navigating towing vessels.

Based upon this reasonable assumption, members of AWO believe that it is appropriate, in the interest of safety of operation of towing vessels, to take the necessary steps to improve the efficiency and responsibility of the men who operate such towing vessels. We believe the most suitable way, the one that has the most chance of success in achieving the objective, is to give the Coast Guard the authority proposed in H.R. 6479.

In this connection may I point out that during the last 7 years there have been many hearings before Congress on safety measures for towing industry operations. A safety legislative package evolved from these hearings, comprised of the following: (1) license the operator of all towing vessels; (2) bridge-to-bridge communications; and (3) revise the rules of the road.

Item No. 2 is now law. Item No. 3 is waiting for international agreements. Item No. 1 has passed the House of Representatives as H.R. 6479. It is now before your committee awaiting action which we hope you will take.

We are aware of the public interest as represented in the thinking of the Congress for taking steps to improve the safety of operation of towing vessels. The companies represented by the American Waterways Operators, Inc. are in accord with that interest. We seek such measures, both statutory and regulatory, as are consistent with this interest. We believe the objective of H.R. 6479 is consistent with that interest.

The outstanding safety record achieved by the barge and towing industry is evidence of the concern and interest of all personnel involved. Nevertheless, constant vigilance is necessary to improve this record and we are all aware of this. As a measure of the concern and accomplishment for safety, records show that in the performance of inland waterborne freight services, by far the largest portion of which is provided by towing vessels and barges, the total fatality rate per billion ton miles for 1968 was 0.54.

To appreciate this, it is necessary to note that for rail freight services the comparable total fatality rate per billion ton miles in 1968 was 2.5; and for motor freight services, the total fatality rate per billion ton miles was 10.8.

With permission of the chairman, we would like to insert in the record of this hearing the following statement from the report of the House Committee on Merchant Marine and Fisheries which accompanied that committee's action on H.R. 6479:

During the course of hearings in the 91st Congress, the Coast Guard submitted a draft of proposed rules and regulations covering licensing requirements. They contained provisions for the form of license to be issued, general procedures for application and issuance, requirements relating to citizenship, minimum age requirements, physical and professional examinations, character references, minimum experience and training qualifications, and designated procedures for renewal and for suspension or revocation.

Without evaluating the details of the draft submitted or attempting to restrict the authority of the Secretary to issue regulations in accordance with appropriate administrative procedures, the committee endorses the concept reflected in the draft regulations submitted as meeting the intent of your committee to insure the proper qualifications of an individual seeking a license as required by this bill.

Mr. Chairman, we endorse that statement from the House committee report.

As a matter of fact, if I may deviate for just a moment, I would like to call your attention to the fact that Mr. Alario touched on a subject which our industry for the last 2 years, working with the Coast Guard, were able to bring about a set of rules and regulations for licensing of operators on towboats what we will be able to live with, and if this bill goes through, the segment of the industry I represent already are satisfied with this set of regulations that the Coast Guard expects to put into operation, and I would like to make that part of the record, sir.

Senator LONG. Without objection, it is so received.
(The information follows:)

PROPOSED RULES AND REGULATIONS FOR LICENSING OF OPERATORS OF UNINSPECTED TOWING VESSELS

Note: 1. 8-71 draft has been revised in part to reflect comments contained in AWO letter of 20 September 1971.

2. This draft reflects proposed regulations the Coast Guard is prepared to present at a Public Hearing bearing in mind the possibility of a legal opinion being required concerning the status of those vessels presently subject to other statutes and/or International Convention Agreements, such as 46 USC 224a. (Officers Competency Act—vessels 200 GT and over on the high seas).

(Those pages where revisions were made are marked by an asterisk in the lower right-hand corner).

46 CFR PART 10, SUBPART 10.16

10.16 *Licensing of Operators of Uninspected Towboats*

10.16-1 *Application*

This subpart applies to licenses as "operator of uninspected towboats." "Uninspected towboat" under this subpart is a towboat to which (*identify statute*) applies.

10.16-5 *Definitions*

a. As used in this subpart, the term—

(1) "Inland Waters" means waters on which the rules to prevent collision found at 33 USC 151-232 apply;

(2) "Western Rivers" means waters on which the rules to prevent collision found at 33 USC 301-356 apply;

(3) "Great Lakes" means waters on which the rules to prevent collision found at 33 USC 241-295 apply; and

- (4) "International Waters" means waters on which the rules to prevent collision found at 33 USC 1051-1094 apply.
- b. As used in this subpart the term "original license" means the first license issued to a person under this subpart.

10.16-10 *Establishment of licenses*

There are hereby established two licenses for operator of uninspected towboats :

1. a license as "operator of uninspected towboats" and
2. a license as "second class operator of uninspected towboats." Such license is valid for operation of a towing vessel only when a person holding a license as "Operator of uninspected towboats" or a superior license is aboard the towing vessel being operated.

10.16-15 *Classification of licenses*

Licenses established under section 10.16-5 are basically classified and will be delineated as follows :

1. "Inland Waters only,"
2. "Western Rivers only,"
3. "Great Lakes only."

10.16-20 *Consolidation of classifications*

A license may be issued covering one or more or all of the basic classifications enumerated in section 10.16-15 if qualifications are met. In case of consolidation, the word "only" will be eliminated from the classification.

10.16-25 *International waters ; additional classification*

a. A license classified under section 10.16-15 or bearing consolidated classifications under section 10.16-20 may also contain an authorization to serve on "International Waters."

10.16-30 *Special limitations on "international waters," authorization*

a. A license authorizing service on international waters under section 10.16-25 shall be further qualified by limiting the authorized service to no more than 200 miles offshore.

b. Such a license may be authorized for a greater distance than 200 miles offshore when meeting requirements of paragraph 10.16-70(c).

10.16-35 *Service limitations, generally*

Any license issued under this subpart may be limited by the Officer in Charge, Marine Inspection.

10.16-40 *Procedure for application for original license*

- a. An application is to be made on Form CG-866.
- b. An application must include the fingerprints of the applicant unless the applicant already holds a valid license issued by the Coast Guard.
- c. Proof of qualification as set forth below must be submitted with the application.

10.16-45 *Qualification for license, citizenship*

a. A person who is not a citizen of the United States is not qualified for a license under this subpart.

b. An applicant for a license under this subpart may submit proof of citizenship in one of the following forms :

- (1) Birth certificate or certified copy thereof, or delayed certificate of birth issued under the seal of a State,
- (2) Certificate of naturalization, or, in the case of a person deriving citizenship through naturalization of parents, a certificate of citizenship issued by the United States,
- (3) Baptismal certificate or parish record recorded within one year of birth,
- (4) Statement of physician that he attended the birth and has a record of the date on which it occurred,
- (5) A United States passport,
- (6) Evidence proving citizenship in connection with having been commissioned in the United States Navy, Marine Corps, or Coast Guard, regular or reserve, on or after January 1, 1936,
- (7) Reference to already existing Coast Guard records.

c. A person who cannot establish citizenship for purposes of this subpart by one of the seven methods enumerated in paragraph (b) of this section may submit an affidavit to that effect and may submit for consideration:

- (1) a report of the Bureau of the Census showing the earliest record of age, parentage, and birth available,
- (2) affidavits of parents or other relatives,
- (3) affidavits of two or more responsible citizens,
- (4) school records,
- (5) immigration records, or
- (6) insurance policies.

10.16-50 *Qualification for license, age*

(a) A license as operator under this subpart will be issued to an applicant otherwise qualified who is at least twenty-one years of age.

(b) A license as second class operator under this sub-part will be issued to an applicant otherwise qualified who is at least nineteen years of age and not yet twenty-one.

10.16-55 *Qualifications for license, language*

An applicant for a license under this sub-part must be able to speak, read, and understand English as used in the applicable rules of the road, aids to navigation publications, emergency equipment instructions, and machinery instructions.

10.16-60 *Qualification for license, experience*

(a) An applicant for a license as operator under this sub-part must show:

(1) Three years' service on vessels of which two years' service may have been service on deck on any vessel of 26 feet or over in length and of which one year's service shall have been as a deckhand, wheelsman, or equivalent on a towing vessel, or

(2) Three years' service on towing vessels of which one year's service shall have been as a deckhand, wheelsman, or equivalent.

(b) An applicant for a license as second class operator under this sub-part need show only 18 months' service on deck on a towing vessel.

(c) An applicant who license is to be restricted under section 10.16-35 need show only 18 months' service on deck on a towing vessel within the geographical area to which the license is to be limited.

10.16-65 *Qualification for license, medical examination*

(a) An applicant for an original license under this subpart is required to undergo physical examination by a medical officer of the United States Public Service, or some other reputable physician, and to obtain a certificate of fitness for the duties of a towboat operator. The certificate must certify the applicant's acuity of vision and color sense and general physical condition.

(b) Epilepsy, insanity, senility, acute venereal disease, neurosyphilis, badly impaired hearing, and other like defects are causes for rejection of an applicant.

(c) Standards of acuity of vision are at least 20/20 in one eye and 20/40 in the other, with or without correction, but an applicant who requires correction to meet this standard must have, uncorrected, at least 20/50 vision in one eye and 20/100 in the other.

(d) Test for color sense shall be by means of pseudo-isochromatic color plates, but an applicant who cannot pass this test may submit proof of passing the Farnsworth lantern test or failing that, the Williams lantern test.

(e) In the case of an applicant who does not meet the standards set in this section, an Officer in Charge, Marine Inspection, may, in his discretion, submit to the Commandant a request for a waiver.

10.16-70 *Qualification for license, professional examination*

(a) Examination will be practical rather than theoretical. An examination will be in writing unless an oral examination is determined to be necessary. Such oral examination shall be recorded.

(b) An applicant's examination shall cover the following subjects:

- (1) Rules of the Road (as applicable).
- (2) Practical use of the magnetic compass (as applicable).
- (3) Shipboard instruments and accessories.
- (4) Emergency signals.

- (5) Chart work.
- (6) Aids to Navigation.
- (7) Lifesaving and simple first aid.
- (8) Firefighting equipment and procedures and fire prevention.
- (9) Seamanship or boatmanship (as appropriate to the license).
- (10) Knowledge of all regulations and laws applicable to the operation of

a towing vessel, including the regulations in Subchapters C and D of this chapter.

(c) An applicant for a license valid for service more than 200 miles offshore will also be examined in celestial navigation and must present a First Aid Certificate from the U.S. Public Health Service.

(d) An applicant to whom a license limited under section 10.16-35 is to be issued need be examined in chart work only for the geographical areas to which the license is to be limited.

10.16-75 *Denial of issuance of license*

(a) Issuance of a license shall be denied to any person who does not meet the qualifications of this subpart.

(b) Issuance of a license will be denied to any person who has been:

- (1) Convicted of treason
- (2) Convicted of desertion from an armed service
- (3) Convicted in a court of record, within ten years before filing of application, of violation of a narcotic drug law of the United States, a State or Territory of the United States, or the District of Columbia, or
- (4) A user of or addicted to a narcotic as defined at the Act of July 15, 1954 (46 USC 239a), 68 Stat. 484, unless he furnishes satisfactory proof of cure.

(c) Issuance of a license shall be denied to any person who does not furnish written recommendations from three reputable persons who know the applicant. One of the three recommendations must be from a master or operator who has employed the applicant.

(d) Issuance of a license shall be denied to any person whose habits of life and character are such as to warrant the belief that he cannot be entrusted with the duties and responsibilities of the position for which he is to be licensed.

10.16-80 *Effect of existence of orders of suspension or revocation or issuance of license*

(a) No person who held a certificate or license which has been revoked or suspended in a proceeding under part 137 of this chapter may be issued a license under this subpart unless he is entitled to and holds another valid license or certificate.

(b) A person otherwise qualified who holds a license or certificate under an order of probation issued after a proceeding under part 137 of this chapter may be issued a license under this subpart but the license, when issued, is subject to the order of probation.

10.16-85 *Issuance of license*

(a) Prior to issuance of a license an applicant is required to take an oath before a Coast Guard officer authorized to administer an oath that he will faithfully and honestly, according to his best skill and judgment, without concealment or reservation, perform all the duties required of him by law.

(b) An applicant shall place his signature and left thumb-print on the license and on any sheet attached thereto.

10.16-90 *Duration of license*

A license issued under this subpart is valid for a period of five years unless suspended or revoked after a proceeding under part 137 of this chapter.

10.16-95 *Removal of limitations on licenses*

(a) A limitation placed on a license issued under this subpart may be removed by the Officer in Charge, Marine Inspection, who issued the license if he is satisfied that change in qualification justifying the lifting of the limitation has occurred.

(b) An Officer in Charge, Marine Inspection, may not authorize the removal of a limitation placed on a license by another Officer in Charge, Marine Inspection, without the knowledge and consent of that officer.

(c) A person who holds a second class license issued under this subsection may, on reaching age 21, obtain a license as operator if the additional requisite service experience is shown.

(d) A person who holds a license limited to a certain geographical area may, at any time within the five year period of duration of the license, obtain a license with broader limitations or without limitation upon showing of the requisite service.

10.16-100 *Conversion of license*

(a) A license as second class operator may be converted to a license as operator when the holder has reached age 21 and meets the experience requirements of paragraph (a) of section 10.16-60. All requirements of this subpart apply to an application for conversion under this paragraph and a license converted under this paragraph except sections 10.16-45, 10.16-55 and 10.16-70.

10.16-105 *Renewal of license*

(a) No license as second class operator or license limited under Section 10.16-35 may be renewed in kind, although it may be converted under section 10.16-100.

(b) A license as operator not limited under section 10.16-35 may be renewed for an additional five year period. All regulations of this subpart apply to an application for renewal under this section and to a license renewed under this section except sections 10.16-45, 10.16-55, 10.16-60, and 10.16-70.

(c) An applicant for renewal under this section shall execute an affidavit that he has within the three months preceding the date of application, read the Rules of the Road for the waters for which the license is to be issued.

(d) An application under this section may be submitted not more than 90 days before the expiration date of the license held.

(e) An application under this section may be submitted within one year after the expiration of the license. When a holder of a license is serving in an armed force of the United States at the time of expiration of his license and there was no reasonable opportunity for him to renew the license during such service, the one-year period commences to run on the date of the person's release from active duty from the armed service.

(f) An applicant for renewal of a license under this section who has not served under authority of his license, or been employed in a position closely related to the operation of vessels during the three-year period immediately preceding the date of application, shall be required to satisfactorily complete an examination in Rules of the Road before such license shall be renewed.

(g) An applicant for renewal of a license under this section who has lost the sight of one eye may obtain renewal of his license, if otherwise qualified, if the vision of the remaining eye, uncorrected, is 20/20.

10.16-110 *Suspension and revocation of licenses*

A license issued under this subpart is subject to action under part 137 of this chapter.

10.16-115 *Parting with license*

When a holder of a license voluntarily parts with it or places it beyond his personal control by pledging it or depositing it with any person for any purpose, the holder's license may be proceeded against under part 137 of this chapter.

10.16-120 *Loss of license; issuance of duplicate*

(a) A person whose license has been lost may apply for a duplicate. The regulations of this subpart, except sections 10.16-45, 10.16-55, 10.16-60, and 10.16-70, apply to applications for licenses under this section and to licenses issued under this section.

(b) The application must contain an affidavit adequately explaining the loss of the license.

(c) A duplicate license shall be issued in the same terms and for the same expiration date as the license lost.

10.16-125 *Appeals*

(a) When issuance of any license under this subpart is denied by an Officer in Charge, Marine Inspection, the applicant has the right to appeal to the Coast Guard District Commander having cognizance.

(b) If a District Commander affirms a denial of issuance of a license by an Officer in Charge, Marine Inspection, the applicant has the right to appeal to the Commandant.

(c) Appeals under this section must be filed in writing within fifteen days of notice of the action appealed from.

10.16-130 *Operations under authority of licenses*

(a) A person who holds a license as master, mate, or pilot issued under this part may serve as an operator under this subpart, without a special license issued under this subpart, subject to limitations placed on the license as master, mate, or pilot.

(b) A second class operator may serve only aboard a vessel on which there is also employed an operator licensed under this subpart for the waters on which the vessel is operated or a person qualified under paragraph (a) of this section.

10.16-135 *Special Provisions*

(a) A person who, within one year of the effective date of this subpart, presents evidence of at least one year's service in charge of the navigation of a towing vessel, within three years of the date of application, is excused from the requirements of service in section 10.16-60 of this subpart but shall pass the examination in Rules of the Road required by 10.16-70(b) (1).

(b) Such a person, if found to be color-blind, may be issued a license limited to daytime operation only ("sunrise to sunset").

(c) Such a person, who has sight in only one eye, is excused from the requirements of paragraph (c) of section 10.16-65 if the sight in the one eye is, corrected or uncorrected, 20/20, but if corrected at least 20/50 uncorrected.

(d) Such a person, if illiterate, may be examined orally in Rules of the Road as required by 10.16-70(b) (1).

CHANGES TO PART 10 TO SUPPORT THE PROPOSED SUBPART 10.16

1. Amend 10.01-1 to read:

The purpose of the regulations in this part is to provide a comprehensive and adequate means of determining the qualifications an applicant must possess in order to be eligible for a license as deck or engineer or radio officer on merchant vessels, or for a license as operator of an uninspected towing vessel, or a license to operate motorboats or for a certificate of registry as staff officer.

2. Amend 10.01-5 by deleting present paragraph (f) and adding new paragraph (f).

10.01-5(f) *License as operator of uninspected towboats*

The regulations concerning the licenses of operators of uninspected towboats interpret or apply (identify statute).

Mr. HUGHES. In its consideration of H.R. 6479, the board of directors of AWO noted two provisions which the board believed should be called to your attention.

One is the provision which gives the Coast Guard 6 months to implement initial licensing. The AWO board felt that a longer period should be provided and suggested 2 years. We offer this only as a matter for consideration of the committee and the Coast Guard.

The other matter concerns the provision of H.R. 6479 which states:

The Secretary of Transportation shall conduct a study concerning the need for engineers on uninspected towing vessels and shall submit to the Congress a report on this study together with legislative recommendations not later than 10 months after the enactment of this legislation.

In the interest of clarification of the intent, purpose, and objective of such a study, the AWO board suggested that the directive of the Congress to the Secretary clearly states that such a study should be related solely to insuring safe navigation. This can be accomplished by the addition of the underscored words to section 2 of the bill:

The Secretary of Transportation shall conduct a study concerning the need for engineers on uninspected towing vessels to insure safe navigation and shall submit to the Congress a report on this study, together with any legislative recommendations not later than ten months after the enactment of this legislation.

The same objective could be accomplished, we believe, in this committee's report on the proposed legislation.

May I reiterate, Mr. Chairman, that the American Waterways Operators, Inc., in the interest of improving the safety of navigation of towing vessels, urges enactment in this session of the Congress of H.R. 6479.

Senator LONG. Thank you very much, sir.

The next witness then will be Mr. Louis R. Fiore, chairman of the Waterway Operations Conference.

STATEMENT OF LOUIS R. FIORE, CHAIRMAN, WATERWAY OPERATIONS CONFERENCE; ACCOMPANIED BY JOHN D. GEARY, CHAIRMAN OF THE EXECUTIVE COMMITTEE

Mr. FIORE. Mr. Chairman, I am going to be relatively brief.

I appear today as chairman of the Waterway Operations Conference, a national nonprofit inland waterway association concerned exclusively with operational problems.

I would like the record to also note that I am the president of the Ohio River Co. of Cincinnati, Ohio, an inland waterway carrier.

Appearing with me today is Mr. John D. Geary, chairman of the executive committee of the Waterway Operations Conference. Mr. James T. Gleen of Washington, D.C., is general counsel of our conference, and our office is located at 2000 K Street, NW., Washington, D.C.

The Waterway Operations Conference was formed late last year to further the development of a strong water-carrier industry through effective liaison with the Congress, appropriate executive departments and agencies, and the public at large.

Membership of our organization currently consists of 16 member companies that are transporting by water over 50 percent of the cargo now moving on the inland waterways.

Our collective as well as individual objective is to maintain the continued growth and safety of this industry. We, frankly, feel that this new organizational vehicle will enable us to provide greater and more specific expertise on all the multifaceted operational aspects of the water-carrier industry to the Government.

The Waterway Operations Conference strongly supports and endorses the objectives of H.R. 6479.

The majority of our industry has for at least 7 years supported Coast Guard licensing of our able and, we think, fully qualified men in charge of our vessels.

We believe that the safety record of our mode of transportation is outstanding. National Transportation Safety Board figures adequately support this conclusion.

Our commitment to improve safety on the inland waters has been manifest. The Waterway Operations Conference has participated positively in many of the recent congressional and administrative steps that have been taken to improve safety conditions on the waterways.

We have supported and implemented the introduction of bridge-to-bridge radio communications, which was mandated by the Congress in 1971 under Public Law 92-63.

We have cooperated fully and effectively in the recent Coast Guard implementation of the oil pollution prevention requirements of the Water Quality Improvement Act of 1970.

We have just recently participated in the work done by this committee in reporting out and passing the Navigable Waters Safety and Environmental Quality Act of 1972. The exercise of certain necessary and specific control in those situations, where there has been a history of impairment of safe navigation or where there is a particular serious danger to safety as a result of weather or other conditions, makes sense to use in the industry.

All of these major actions have directly involved members of our industry and the U.S. Coast Guard working cooperatively together to improve our already enviable transportation safety record.

The essential provisions in H.R. 6479 for licensing of towing vessel operators will contribute materially to these efforts.

While the programs and increased activity over the past 2.5 years have been substantial, they have not come without cost to our industry.

The inland waterway industry is quite willing to bear these additional responsibilities within reason but does wish the committee to bear in mind that there are incorporated in all these measures a real danger that an excessive and meaningless regulation could lead to an embarrassment to the Government and create unnecessary and disruptive burden on an otherwise safe inland marine industry.

It is in this vein that we do feel that the study proposed in section 2 of the bill before you is unnecessary.

Repeated reports of both the U.S. Coast Guard and the National Transportation Safety Board based on exhaustive study and analysis of the casualties over the years fail completely, in our opinion, to recommend or reveal a need for a licensing of engineers on our modern diesel towing vessels. This equipment is among the finest in the world.

The state of marine engineering art has now progressed to such an extent that we have high-speed diesel engines that require little or no maintenance for many thousands of hours of operations.

These engines are applicable to instrumentation and complete pilot-house control such as engine monitoring systems for high water temperature, low oil pressure, low oil level, low level fuel supply, over-speed protection, and automatic load transfer of generator units.

All of these controls have been pioneered by the river towboat industry and require only intermediate surveillance which can be handled by members of the crew. Engineers on constant duty are no longer necessary.

While we feel that the study is unnecessary, we will not oppose its authorization but would definitely recommend that, if a study is authorized, it should be for the exclusive and special purpose of assuring safe navigation on the inland waterways.

Moreover, if the committee in its wisdom decides to go forward in this area, we would respectfully request that the duration of the study be extended for at least 2 years in order to provide the Secretary and the Coast Guard with sufficient time to properly conduct an in-depth analysis and review of the real needs in this area.

If I may digress for a moment from the script, Mr. Chairman, having held a marine license for 36 years continuously, and I now hold a

master license myself unlimited, and being a retired captain in the Navy, I admit that the mere possession of a license will not impart to any holder any degree of alertness, judgment, initiative, or will make him make the right decision at the right time.

But, at least, it will insure that he is more prepared to make that right decision at the right time, and that is what we would like to see.

In conclusion, Mr. Chairman, I should like to observe that in the last 25 years the volume of traffic moving on the inland waterways has more than doubled.

In 1971 we moved with great safety about 10 percent of the Nation's intercity cargo tonnage at low cost, which ultimately benefits everyone in the marketplace.

The member companies of the Waterways Operations Conference are duly proud of this record for the entire industry and look forward to continuing to work effectively with your committee and all other interested government agencies in a joint effort to further improve the system.

Again, I wish to thank you and the members of the committee for giving me the opportunity to appear and present these views.

In this connection, we also understand Mr. Alario's problems. We feel some adjustment should be made, but we feel strongly that this should not at this time inhibit the pursuing of this legislation.

Thank you very much, Mr. Chairman.

Senator LONG. Let me ask you this question about the engineer on the boats. Where you have a diesel engine, suppose that the engine does go out on you. It sometimes happens on a good automobile.

What would you advise the crew to do in that situation?

Mr. FIORE. Well, Mr. Chairman, we perhaps are fortunate in that all of our boats are twin or triple engines, so that if one engine goes out, we continue with another engine until we reach some sort of a repair yard and fix it. Of course, safety is paramount in our mind. If we have a full tow and one engine goes out, we do not continue with that tow. Incidentally, as a matter of only information, all of our masters and pilots are already licensed, and all of our engineers are licensed, but that is really not relevant to the point that you are asking.

We tell them to tie up, if the tow is too large to handle with one engine; if not, to proceed as quickly as we can and get it fixed.

Senator LONG. If all your engines did go out on you, I guess you would have an anchor that you could drop?

Mr. FIORE. No, sir; I am sorry to say we do not. If I may take a minute on this. When we borrow money, the admiralty lawyers always insist that among other things, the appurtenances, et cetera, on tow boats, be hocked, if I may use the terminology. We have no anchors.

Senator LONG. If you did have your engines go out—if they all went out on you, I guess all you could do is signal for help.

Mr. FIORE. The obvious thing to do on the Ohio, Mississippi, and Illinois Rivers where we operate mostly is to head for the shore and try to ground it.

Mr. Geary is my operational vice president and I have been in this business 16 years and we travel a great deal. We move millions of tons through New Orleans, Mr. Chairman, every year. We have never, to my knowledge—Jack, have we had a boat go out?

Mr. GEARY. I would think not. In most cases, where there could be such a situation, the presence of an engineer might not contribute anything to the situation. Much of the repair work is done at shore when the boat is tied up.

Senator LONG. Thank you very much, gentlemen.

Is the Department of Labor currently reviewing the safety rules for your industry?

Mr. FIORE. I am sorry, sir. I don't quite get the gist of that question.

Senator LONG. Is the Labor Department reviewing presently the safety rules for your industry?

Mr. GEARY. Are you referring to the William Steiger bill? I believe that issue has not been clarified and I believe there are discussions going on between the Department of Labor and the Coast Guard. I would not care to answer.

Senator LONG. Thank you very much.

Mr. FIORE. Thank you very much for your time.

Senator LONG. That concludes these hearings.

(Whereupon, at 4:15 p.m., the hearing was adjourned.)

ADDITIONAL ARTICLES, LETTERS, AND STATEMENTS

AUGUST 6, 1971.

HON. WARREN RUDMAN,
Attorney General, State of New Hampshire, Concord, N.H.

DEAR WARREN: I am enclosing for your inspection and comment a bill, H.R. 6479, which has been passed by the House of Representatives and referred for consideration in the Senate to the Committee on Commerce, on which I serve as the senior Republican member.

It is my understanding that New Hampshire law presently requires that all vessels, subject to certain exceptions, be piloted by a pilot appointed by the New Hampshire State Port Authority while navigating in certain designated waters. It is my request that you examine H.R. 6479, which would require that certain towing vessels be under the control of persons licensed by the Department of Transportation, to determine its effect upon New Hampshire law. If it presents a conflict which is contrary to our local interests, I will appreciate your suggestions as to how that conflict might be resolved, along with recommended language.

I am also enclosing for your information a copy of the House Report which accompanied H.R. 6479, prepared by the House Committee on Merchant Marine and Fisheries (Report No. 92-125).

Thank you for your cooperation.

With best wishes.

Sincerely,

NORRIS COTTON,
U.S. Senator.

CHAPTER 69

AN ACT PROVIDING FOR PORT AUTHORITY APPOINTED PILOTS TO PILOT CERTAIN VESSELS IN THE PISCATAQUA RIVER AND HARBOR

Be it Enacted by the N.H. Senate and House of Representatives in General Court convened:

69:1 Appointed Pilots Required.—Amend RSA 271-A:7-a (supp) as inserted by 1969, 350:3 by striking out said section and inserting in place thereof the following:

272-A:7-a [New] Pilots Required.—All vessels are hereby required to be piloted by a pilot appointed by the authority into and out of the Piscataqua River and Harbor from a point south of a line drawn east and west from Whale's-back lighthouse. Provided, however, that the requirements of this section shall not apply to pleasure or fishing vessels or vessels of no more than one hundred and fifty registered or enrolled tons.

69:2 Effective Date.—This act shall take effect sixty days after its passage.

[Approved April 27, 1971.]

[Effective date June 26, 1971.]

THE STATE OF NEW HAMPSHIRE,
Concord, N.H., August 13, 1971.

Hon. NORRIS COTTON,
U.S. Senate,
Washington, D.C.

DEAR NORRIS: I acknowledge receipt of your letter of August 6, 1971, and enclosures with respect to a bill before the Senate Committee on Commerce, H.R. 6479.

I have examined both the above bill and the Report No. 92-125 prepared by the House Committee on Merchant Marine and Fisheries to determine if there are any possible conflicts with New Hampshire law.

You are correct in your understanding that New Hampshire law requires, with certain exceptions, that a vessel over 150 registered or enrolled tons must be piloted by a pilot appointed by the New Hampshire Port Authority while navigating in certain designated waters in New Hampshire [RSA 271-A (supp)]. The vessel and any towing vessels are under the actual direction and control of the pilot in entering and leaving the Piscataqua River and Harbor.

After a careful reading of H.R. 6479 and Chapter 271-A (supp) of the Revised Statutes Annotated, it is my determination there are no conflicts existing between the proposed H.R. 6479 and New Hampshire law. However, a further step would be required under the bill for pilots licensed under New Hampshire law. That is, in order for them to exercise actual direction and control of towing vessels contemplated by the proposed law, it would be necessary to obtain a license issued by the Secretary of Transportation.

With best wishes,

Sincerely,

WARREN B. RUDMAN,
Attorney General.

[From the Courier-Journal, Apr. 27, 1972]

A HOLE IN THE HULL

THE BELLE IS TEMPORARILY CRIPPLED, BUT THE STEAMBOAT RACE IS ON

(By Robert McConnell and John Finley)

The Belle of Louisville struck a submerged object, apparently a barge, yesterday afternoon while turning near the top of Towhead Island, puncturing and partly flooding one of her 28 hull compartments.

The minor damage, however, isn't likely to affect her race Wednesday against the Delta Queen. Nor is the Ohio River, still over its banks with high water, expected to cause trouble. The National Weather Service predicted yesterday that the river level by race day will be near normal.

The Belle's cocaptain, Clark Hawley, was on the bridge with Capt. Charles Brasher yesterday when the mishap occurred. There were no passengers aboard, Hawley said.

Hawley said he was at the wheel about 12:35 p.m., trying to turn the Belle against an unusually strong current and stiff winds, when she hit the object. The point of contact was about five feet below the waterline on the starboard side near the stern, he said.

Hawley said the underwater obstruction was about 400 feet upriver from Towhead Island and about 60 feet from the Kentucky shore.

The Belle was on her way to a temporary landing at the foot of Louisville's Seventh Street for a practice mooring, Hawley said. Passengers will be loaded there for Wednesday's boat race—and scheduled cruises before then—because of flooding in Carrie Gaulbert Cox Park.

Hawley couldn't identify the sunken object, but W. Clyde Glass, chairman of the Belle operating board, said he assumed it was a barge that had sunk near the head of the island recently after being lost from a tow.

The Belle's stability wasn't affected by the damage, Hawley said, and she went immediately under her own power to the Jeffboat, Inc., docks in Jeffersonville, Ind. He said repair work—welding a steel plate over the hole should take Jeffboat only about three hours to complete. The Belle is expected to go into Jeffboat's dry-dock today or tomorrow for the work.

Glass said he couldn't estimate the amount of damage, but Hawley called it "really quite negligible in view of the fact that it's only one compartment." He said three or four compartments would have to flood to materially affect the Belle's stability.

Belle workmen were pumping water out of the damaged compartment last night. They hadn't seen the hole in the side, but one man said it was probably small because water was flowing slowly into the compartment.

Hawley and Glass said the Belle's schedule shouldn't be interrupted by the accident. Her next regular cruise is for a high school group on Saturday, and cruises are also scheduled Sunday and Monday.

Glass said he didn't think the submerged barge would interfere with the running of the steamboat race, saying the two boats will stay clear of the area. He added that, despite the accident, it was better to discover the barge today than to hit it on race day, when both boats will be crowded with passengers.

The accident, Hawley said last evening aboard the Belle, actually showed how well constructed the Belle is. Almost the entire bottom of the vessel is covered with watertight compartments, he said, adding that the Belle has more compartments than the Delta Queen despite her smaller size.

"I attribute her longevity to the fact that she does have such a fine hull," he said.

Glass was philosophical last night about the Ohio River's habit of forcing changes in the race plans.

"We have had crises every year, and I guess that's what we live on," he said, "but they're not easy to handle because you just can't handle that river."

The National Weather Service's river forecast office in Cincinnati predicted yesterday that the river above McAlpine Dam—the stretch where the race will be run—probably will be close to its normal summer level for the popular event.

Tom McPhillips, a hydrologist with the office, cautioned that one week is pretty long range for river forecasting, but he added that additional rainfall now won't have the effect that it would have had a few weeks earlier.

"Things change dramatically this time of year," he said. With trees leafing out, grass growing and warmer temperatures drying out the ground, rainfall simply doesn't run off into streams and rivers in the quantities that it does in early spring, he explained.

"Whatever the reasons, sometime in April there's always a big change in the runoff characteristics of the (Ohio River) basin," McPhillips said.

Even though the river will be suitable for the race between the Belle of Louisville and the Delta Queen, the side effects of the river's recent flooding are taking their toll on the carefully laid plans of the Derby Festival period.

Glass said that because of the collision yesterday, the Belle will probably be at the Jeffboat repair yard until Friday. The Belle will then be moored at Cox Park, he said, but will pick up passengers for the cruises Saturday, Sunday and Monday at the foot of Seventh Street.

Flood waters still cover part of Cox Park, Glass said, and even if the water drops radically the park may be too wet to park all the cars of passengers who come to ride the Belle.

Glass urged all of the Belle's patrons—including those riding on the day of the race—to use the city's 1,600-car riverfront parking garage, which has an entrance on Sixth Street just south of River Road.

The Belle has a regular cruise Saturday; then it has a Sunday night and Monday night cruise under the auspices of the Derby Festival Committee.

John R. Guthrie, executive vice president of the committee, said tickets are sold out for the Sunday night cruise for newcomers to Louisville.

The tickets for both the Sunday and Monday night cruises say that the Belle will depart from Cox Park and Guthrie emphasized that the departure site now is the Seventh Street mooring.

Also sold out are the tickets to board the Belle for the race. Guthrie said 250 were sold at \$25 each, but he added that tickets to board the Delta Queen still are available for the race and can be purchased at \$28 each at Founders Square.

Guthrie said the air show preceding the steamboat race will go on as scheduled—at 4 p.m. Wednesday.

The stern-wheelers will leave their moorings about 5 p.m., then line up for the start at 5:30 p.m., at the head of Towhead Island. They'll race upstream to opposite Harrods Creeks, turn and finish opposite Cox Park. When the race is over, they'll return to their moorings.

Glass said at a Belle board meeting this week that the race could be run if the upper pool level on the river were as high as 20 feet. The race was canceled in 1966 because of high water.

Flood stage in the upper pool—above McAlpine Dam—is 23 feet and the river stood at 25 feet yesterday.

McPhillips predicted, however, that the river could be as low at pool stage—12 feet—by next Wednesday. The current might be about one mile an hour, he said, but he added that the speed of the current can be even more variable than the level of the river.

McPhillips said his office bases its forecasts on data gathered about rainfall and waterflow in the Ohio River above Evansville, Ind. The work includes checking on Ohio River tributaries that reach all the way up into western New York.

OFFICE OF EMERGENCY PREPAREDNESS—DISASTER CENTER,
Louisville, Ky., March 31, 1972.

General summary

Salvage operations continue to progress satisfactorily. No chlorine gas leakage or movement of the barge has occurred since the last report.

Regional Director McMillen attended meeting 10:30 AM yesterday in Louisville, presided over by Mayor Frank Burke, regarding plans for evacuation of residents living in area adjacent to chlorine barge.

Regional Director Connor visited with local authorities in surrounding area of Indiana yesterday to emphasize availability and readiness of all possible Federal assistance. The latest indications were, at the time of RD Connor's departure from these communities, that they did not intend to institute evacuation plans at this time, but the situation could possibly change in view of Louisville's decision to evacuate portions of the City Saturday.

Public protection

In meeting yesterday in Louisville, Mayor Frank Burke announced City will institute mandatory evacuation effective Saturday, April 1, of a small area comprised of 4,266 people living within one mile of the barge site. Colonel Paul, Louisville Police Chief, will be in charge of all police activities, assisted by the National Guard. An additional adjacent area of 22,357 resident also is subject to voluntary evacuation. The Red Cross, in conjunction with the local school system, has made arrangements to open four shelters which will house approximately 2,000 per shelter. A minimum of five additional high schools in outlying areas will be alerted for standby. Areas to be evacuated will be handled by school bus system. National Guard will assist in evacuation routes and security measures. All Red Cross shelters are located in the eastern portion of Jefferson County.

Evacuation of mandatory area will begin 9:00 AM Saturday and is scheduled for completion by noon. The voluntary evacuation area will begin 11:00 AM Saturday and should be completed by 2:00 PM. Present plans call for feeding by Red Cross Saturday evening and two to three meals Sunday. All families being urged to move in with friends and relatives if possible. Others will be directed to Red Cross shelters by news media. No pets will be allowed in shelters. They are to be left at home with food and water. Shelters to be manned by Red Cross nurses and first aid personnel. Security police will be posted at each shelter. City and parochial schools will close Friday.

The Department of Defense has provided 200 oxygen control regulators (for oxygen tents) and 5,000 additional gas masks to the City of Louisville. A first aid station is being established at the barge site to treat minor injuries. This station is not equipped to treat chlorine gas casualties. DOD is also furnishing 12 sets of cold weather clothing to EPA personnel at monitoring stations and two helicopters equipped with monitoring devices to detect presence of chlorine gas in atmosphere.

The Environmental Protection Agency reports that four chlorine monitors are operating; one of the monitors is located directly over the barge; one wind system is operating at the Dam; and during the critical periods, technicians will be placed in the downwind sector with portable chlorine sampling devices. They will report any values to the Civil Defense and Coast Guard.

Meteorological predictions of the likely downwind concentrations of chlorine

will be developed at the Louisville Civil Defense office. In the event of a release, this information will serve to guide local officials in their evacuation efforts.

Water sampling below the Dam is continuing in order to detect chlorine in the water. Thus far, no chlorine has been detected in the water or the atmosphere. Samples of Ohio River water have been sent to EPA Water Quality Laboratory at Edison, New Jersey, to determine chlorine retaining characteristics in turbulent conditions below the Dam.

U.S. Public Health Service—Division of Emergency Health Services representatives are continuing to coordinate and develop preparedness plans in the medical facilities of the area. It is felt at this time that medical and pharmaceutical supplies on hand and in reserve are adequate to meet medical requirements. The Corps of Engineers has requested a PHS physician to be on hand during the chlorine pumping process.

A Federal information team, comprised of COE, OEP, and EPA public information officers, has been established to handle barge incident press queries. Primary news center is in Louisville Federal Building, with secondary news center at McAlpine Dam. A radio line connects the two centers continuously.

Media in area most cooperative in assisting in low-key information program. Broad coverage on salvage progress, government readiness, and possible hazards. Citizens are advised daily that "in remote possibility of a leak and warning sirens sound, do not move! Turn on radio or TV for situation and instructions." Rumor control center with publicized telephone number in operation, and no panic evident.

With critical salvage phase to occur over the weekend, a summary press release noting maximum Federal and local readiness is being prepared. In addition, a 30-minute NBC "Meet the Press"-type show Sunday evening will feature Admiral Siler, R. D. McMillen, COE Commander Col. Rhett, and possibly Louisville Mayor.

Salvage operations

The crack in the deck of the barge was examined by Corps of Engineers personnel who determined that it was caused by the initial impact of the barge against the tainter gates. There is no threat of any leakage from this crack.

Corps of Engineers personnel have secured the bow of the barge to the gate piers with heavy cables. Protective cribbing has been fabricated and will be placed on top of the barge by Saturday. Construction of water and spray shields has been completed. The desired water level is being maintained, and the empty chlorine barge is now in position. Present estimate is that stabilizing operations will start Saturday morning. Chlorine piping should be completed by Friday morning (EPA has changed its waterspray curtain piping from aluminum to steel and is scheduled for completion Friday afternoon). Depending upon final stabilization of disabled barge, the chlorine transfer of the two upstream tanks is scheduled to start early next week. When chlorine transfer operations begin, it is estimated that 16 hours will be required to remove chlorine liquid from each tank.

Weather

Weather conditions and Ohio River levels continue favorable for salvage operations. No significant precipitation expected through Saturday. Enough water coming down Ohio River to maintain desired stage of 16 feet on upper gauge at McAlpine Dam for next several days. Today, winds are expected to be westerly 5 to 10 knots during morning, increasing to northerly 10 to 15 knots during afternoon.

Four Air Force weather personnel assisting National Weather Service (NWS) observe winds in lower levels of atmosphere four times a day at McAlpine Dam.

Hot line established from NWS to TV station WHAS Louisville as information dissemination backup.

Two sets of wind measuring instruments being shipped from NWS Kansas City to NWS Louisville.

[From the Courier-Journal, Apr. 6, 1972]

LICENSED RIVER PILOTS HARD TO FIND, SAYS CHLORINE TOW OWNER

(By Charles R. Babcock)

A river pilot who doesn't have a license was at the helm when a tow ran aground at Louisville March 19, sending a chlorine barge crashing into McAlpine Dam.

This was confirmed yesterday by James F. Hunter, vice president of T. L. Herbert & Sons, Inc., the Nashville, Tenn., barge line that owns the towboat.

But Hunter, in a telephone interview, noted that pilot's licenses are not required by law, and he emphasized that "having a license doesn't mean you won't have accidents."

Indeed, Hunter said, the company has found no evidence of negligence on the part of its pilot, 25-year-old Dexter Lineberry, of Clifton, Tenn., and is planning no disciplinary action against him.

Hunter said Lineberry's nine-barge tow was simply caught by the swift Ohio River current when it was at the entrance of the Louisville and Portland Canal waiting for the Penn Central Railroad Bridge to be raised to allow him to pass on into Louisville's McAlpine locks.

Coast Guard officials still make the point, however, that required licensing would assure that pilots like Lineberry are experienced and have adequate knowledge of the river and its "rules of the road."

In a recent incident at Parkersburg, W. Va., Coast Guard officials note, a tow hit a bridge and exploded, killing two men.

The pilot—who was not killed—was not licensed and had never been on that stretch of the Ohio River before.

River experts estimate that fewer than half of the 10,000 to 12,000 pilots on America's rivers have licenses.

The Coast Guard requires that a pilot have three years of experience on the river, including one at the helm, before even being allowed to take the stringent physical and mental exams for the license.

Hunter said he did not know how much experience Lineberry had on the river, and the pilot himself could not be reached for comment. His wife said Tuesday from their Tennessee home that Lineberry was out of town. Yesterday, his phone was reported out of order.

Hunter said Lineberry had been with the company only since last September. But he added, "He'd been doing a mighty good job. Capt. Lane gave him a mighty good name."

Thomas Lane, another pilot who is also captain of the towboat Lineberry was steering, was asleep at the time of the accident, Hunter said.

Lane doesn't have a Coast Guard license either. In fact, Hunter said, only three of his company's 16 pilots have licenses.

"You hammer at them, tell them to go up and sit for their license. But a lot won't even try.

"I guess it's just the nature of the beast. They'd rather go fishing when they're off than sit and take tests."

It may not be too much longer before such licensing is required, however.

A bill requiring mandatory Coast Guard licensing of all river pilots passed the House last year, after 10 years of effort. It is now before the Senate Commerce Committee, where hearings are scheduled the end of this month.

"It's coming, it's overdue," Hunter said of the bill. "I'm for it 100 per cent."

"Back in the old days you could get licensed pilots," he said. "Now you just don't find them. You've got to make your own and that's a job, with the risk of them tearing up equipment and everything."

Hunter said his companies cannot require that its pilots have licenses because "there's just not enough pilots to go around."

[From the Courier-Journal, Mar. 23, 1972]

PLAN DRAFTED TO TAKE CHLORINE FROM BARGE AT McALPINE DAM

(By Larry Werner)

After two days of meetings, a task force of 50 river and chemical experts revealed plans late yesterday afternoon for a highly sophisticated operation designed to remove 600 tons of poisonous liquid chlorine by the middle of next month from a barge lodged in McAlpine Dam.

The experts devised a program to stabilize the barge on the sill of a dam gate, then transfer the chlorine from tanks aboard the stranded barge to tanks aboard another barge.

The operation is scheduled to begin Saturday and be concluded by April 15.

The final decision on how to handle the crisis, which began with a barge accident Sunday, was made by Maj. Gen. William Starnes, Ohio River Division engineer for the Army Corps of Engineers.

A spokesman for the Corps of Engineers refused to put a price tag on the operation, but he did say: "It'll cost a lot."

Yesterday's announcement climaxed meetings that began Sunday after four barges broke away from a towboat when the tow ran aground entering the Portland Canal that leads to the McAlpine Locks.

The runaway barges were swept into a rapid current leading to the dam gates, and the chlorine-laden barge came to rest on the sill of a gate.

A barge containing ore was swept through the dam gate and sank, and another barge—containing sulfuric acid—came to rest against the Louisville Gas & Electric Co hydroelectric plant that adjoins the dam.

The fourth barge was recovered by the towboat shortly after the accident.

It is the poisonous chlorine that led to the consultations with experts from various parts of the country about removing that barge. The results of the consultations were announced yesterday by Starnes.

According to Starnes, the operation to remove the chlorine will proceed as follows:

On Saturday, salvage expert John Beatty of Point Pleasant, W. Va., will arrive from Cincinnati in a large twin-hulled boat, or catamaran. The salvage vessel consists of two World War II boats connected by a bridge.

Beatty will first remove the sulfuric acid barge from its present berth alongside the hydroelectric plant. For this operation, he will use towboats.

Once the acid barge is taken from the channel leading to the dam, Beatty will straddle one end of the chlorine barge with his catamaran. Then, straps will be fastened underneath the barge to stabilize it.

When that stabilization operation is completed—about the end of the month—chemical experts will begin the delicate job of transferring chlorine to tanks aboard another barge.

The chemical experts will take "at least a week" to transfer the chlorine.

According to the Corps of Engineers spokesman, the transfer should be completed by April 15, at the latest. He said no decision has been made on when the barge will be removed from the gate after the chlorine is transferred.

"After they get the chlorine out, there is no great hurry about removing the barge," the spokesman said. He said the dam operation will not be hindered if the one gate containing the stranded barge is not put back into service before the end of the summer.

The spokesman said the Corps of Engineers will pick up the tab for the expensive operation. But, he said, "The courts will have to eventually determine who was liable and who will pay."

The spokesman emphasized that every precaution is being taken to assure that the chlorine is removed safely.

In the meantime, he added, another salvage operator is expected to begin operations today to remove a sunken barge that has been blocking one of the upstream gates of the dam.

The chlorine barge is blocking a downstream gate, and use of the upstream gates has been curtailed since March 2, when another barge tow broke up, losing five barges.

The recent barge accidents have left a total of eight barges, some of them sunk, cluttering the area around the dam.

The barge blocking the upstream gates has contributed to severe erosion of the Clarksville, Ind., shoreline.

Corps of Engineers workmen yesterday continued to dump tons of rock and fill into an area where the Ohio River had surged around the Indiana edge of McAlpine Dam and had dug about 100 feet deep into the shoreline.

The erosion appeared to have been halted yesterday, according to a Corps of Engineers spokesman. But he said the dumping would probably continue for several days.

Corps officials said the barge jammed into the dam's upstream gates was partially responsible for the erosion problem. Upstream gates cannot be raised while the barge remains stuck, and as a result the water level in the upstream pool has risen, allowing some flow around the Indiana edge of the dam.

[From the Courier-Journal, Apr. 6, 1972]

TWO OF STUCK BARGE'S FOUR CHLORINE TANKS EMPTIED

(By Stan MacDonald)

Two of the four liquid chlorine tanks aboard the barge stuck at McAlpine Dam at Louisville were emptied late yesterday, and workers began the more time-consuming task of removing the potentially dangerous chemical from the other two tanks, which are under water.

Transfer of the chlorine from the two upper tanks to another barge began Tuesday and was completed by 6:15 p.m. yesterday. But a Coast Guard expert said yesterday that final emptying of the other two 100-ton tanks could take four to six days.

Time has been of sharp concern to officials engaged in the delicate salvage operation because the barge is in swift Ohio River current and there is danger that it could break up or plunge over the dam.

Salvage officials are worried about "metal fatigue." W. A. Cleary Jr., chief of the U.S. Coast Guard's hull scientific section, said river currents are exerting "tremendous" pressure on the barge's superstructure.

In addition, emptying the bottom tanks could cause the lightened barge to shift its position, making it harder for salvage operator Capt. John Beatty's catamaran to hold it steady. A thick cable on the catamaran is strapped around the front section of the barge.

Nitrogen has been pumped into the chlorine tanks, forcing the liquid chemical out through pipes to another barge tied nearby in calm water.

Because the lower tanks tilt away from their valves, the nitrogen can be used to remove only about one-third of their contents. Coast Guard officials said this stage, which began about 2 p.m. yesterday, would be completed at about midnight.

The rest of the chlorine, which is under heavy pressure, will be permitted to "boil off" like a teapot into a "reactor chamber," with the resulting mixture being released into the Ohio River in "harmless" concentrations.

[From the Courier-Journal, Apr. 13, 1972]

COAST GUARD OFFICER SPEAKS WITH GROUP—MAYOR'S PANEL LAUDS
BARGE HANDLING

(By Vincent Crowdus)

The Mayor's Citizens Advisory Committee yesterday adopted a resolution commending Mayor Frank W. Burke and "all others involved" for the way they handled the recent emergency arising from the chlorine-laden barge lodged on McAlpine Dam.

Bob Henry Eicher, who offered the resolution, was in Washington when residents of the Portland area nearest the dam were evacuated and said he heard "nothing but praise for what was done and the way it was done without panic."

Lt. Cmdr. John E. Dunn, executive officer of the U.S. Coast Guard port in Louisville, asked if he felt evacuation was necessary, replied, "I, personally, go along with what the major did."

Dunn discussed the barge incident and river safety in general with the committee.

He said some tests had been made on the Ohio River at Louisville on various methods of lighting towboats at night and he thought "flashing amber lights will be required soon."

Dunn also said a hearing will be held in Washington April 27 on proposed legislation to license towboat pilots.

The Rev. Daniel J. Hughlett, a committee member who long has been a leader in the civil rights movement in Louisville, criticized action by a group of blacks at the Board of Aldermen meeting Tuesday night.

The Rev. Hughlett said the group was wrong in claiming that it represented the black community. The group did not represent organizations that long have been leaders in the fight for equal opportunities, such as the National Association for the Advancement of Colored People and the Louisville Urban League, he said.

The group of nearly 200 persons submitted to the aldermen a list of 10 demands, including a community center at 28th and Magazine, more jobs, improved

justice and an end to alleged police harassment, better housing, and two hospitals run by blacks.

"Some of these things are all right. Some of the things are outrageous," the Rev. Mr. Hughlett said.

"They are doing some things that are distasteful for me," he added.

[From the Courier-Journal, Apr. 13, 1972]

COAST GUARD TO PROBE CHLORINE BARGE MISHAP

A one-man board of investigation into the Louisville chlorine barge accident will be convened April 25, the U.S. Coast Guard announced yesterday from St. Louis.

The announcement by the Coast Guard's 2nd District headquarters said the proceedings will start at 10 a.m. in the Federal Building at Sixth and Chestnut.

Lt. Cmdr. James E. Webb of Louisville will conduct the investigation, which will be open to the public. A Coast Guard press release said the investigation is "not intended to fix civil or criminal responsibility."

The barge, with 640 tons of chlorine aboard, became stuck at the McAlpine Dam after an accident March 19.

[From the Courier-Journal, Apr. 10, 1972]

HIGH WATER HALTS CHLORINE WORK

Removal of chlorine from the barge stuck against McAlpine Dam was temporarily halted yesterday because of rising water in the Ohio River, a spokesman for the Army Corps of Engineers said. Rainfall upstream was responsible.

The spokesman said the removal operation ceased shortly after noon yesterday. He said chemical experts working on the barge "got to feeling a little unsafe with that water running around them" and officials decided to suspend work until the river "levels off."

The spokesman said work may resume tomorrow when the river is expected to crest at 16.5 feet at the dam's upper gauge, which was at 13.7 feet yesterday afternoon. The highest point reached on the upper gauge since the barge mishap is 17.5 feet. That level was recorded March 20, a day after the barge tow struck the head of Shippingport Island and broke up.

The spokesman said the barge remains stabilized and there is less than 20 tons of chlorine left to "boil off" from the two lower tanks, which are submerged. He said the valves in those tanks have been shut off. The barge's two upper tanks were emptied days ago.

Before officials decided to delay the operation, they had anticipated completing the removal of the potentially dangerous chemical by late yesterday. However, they said the operation no longer is in a critical phase.

[From the Courier-Journal, Apr. 8, 1972]

CHLORINE LEVEL DOWN TO 150 TONS

Only about 150 tons of chlorine remained late yesterday afternoon in tanks aboard a barge that has been stranded on a gate sill of McAlpine Dam since March 19, according to an Army Corps of Engineers spokesman.

The chlorine-removal operation was proceeding smoothly, the spokesman said, as the potentially dangerous chlorine was "boiled off" chemically at a rate of two to three tons an hour.

At that rate, the tanks are expected to be emptied by Monday or Tuesday.

The barge became lodged in the dam gate after a barge tow struck the head of Shippingport Island and broke up.

[From the Courier-Journal, Apr. 15, 1972]

AFTER SOME DELAY CHLORINE REMOVAL ENDS BARGE CRISIS

(By Bill Knee)

Louisville's chlorine barge emergency came to an end shortly before 7 p.m. yesterday when the last of the liquid chlorine was removed from the barge that has been lodged against McAlpine Dam since March 19.

An Army Corps of Engineers announcement declared the danger to the citizens of the area to be officially over.

Removal of the stricken barge from the lower gates of McAlpine Dam—a routine salvage operation—is expected to begin on Sunday, according to the corps statement.

Late last week, the corps optimistically predicted the last of the chlorine would be removed by Monday or Tuesday. By Thursday, the corps was no longer predicting.

High water Monday had forced chemical experts working on the barge to suspend operations for a day.

Things looked good Tuesday when removal work resumed, but the chlorine kept coming out of the last two tanks as if from a well.

Col. John T. Rhett, Louisville district engineer of the corps and the on-scene coordinator of the salvage operation since April 6, said that he'd hoped when he got out of bed Wednesday morning it would all be over.

There was chlorine in the tanks when he went to bed that night.

The corps' Public Affairs Office was no longer willing to make predictions Thursday morning. Later in the day it announced that, due to miscalculations, there was much more chlorine left than originally estimated.

A federal Environmental Protection Agency official called last week's work the "foot-dragging" part of the salvage operation.

The problem was, the official explained, that the actual removal of the chlorine could not be measured, only calculated on the projected use of the caustic soda being used to neutralize the last 240 tons. The barge had carried 640 tons when it struck McAlpine dam.

The rate of use was highly variable, the official said, especially as the tanks became progressively more empty. In addition, the Ohio river had become a degree cooler, and since the last two tanks are under water, this slowed down the release rate of the chlorine.

Only two officials with the federal Office of Emergency Preparedness remained in Louisville yesterday. And they were itching to return to their regional offices in Atlanta and Chicago to begin the important job of handling state and local reimbursements for the emergency.

During a recent interview, Jack Bleidt, who is the Louisville district chief of operations for the Army engineers, called the chlorine barge accident the worst emergency he's seen in the 30 years he's been with the corps in Louisville.

Compared with the 1967 barge accident at Markland Dam, 75 miles upstream of Louisville, the chlorine barge didn't do much structural damage, nor did it affect much the river's pool level, Bleidt said.

What made the emergency so potentially hazardous, he said, was the poisonous nature of the chlorine cargo and its location in the center of the Louisville metropolitan area.

Louisville's chlorine barge emergency began about 5 a.m. Sunday, March 19, when the towboat James F. Hunter went aground at the head of Shippingport Island as it approached the Louisville and Portland Canal.

Five of the barges in the Hunter's tow broke loose, with the one containing 640 tons of chlorine eventually coming to rest against the second pier of the lower gates of McAlpine Dam.

Here is a day-by-day breakdown of what followed:

March 22. After two days of meetings between local, state, federal and chlorine industry officials, a salvage plan was announced. The barge first would be stabilized—straddled by and lashed to a catamaran vessel owned by salvage operator Capt. John Beatty. Next the chlorine would be removed, and finally Capt. Beatty would remove the barge itself from the dam.

March 23. U.S. Coast Guard Rear Admiral Owen W. Siler arrived to take charge of the salvage operation. The federal Environmental Protection Agency and Office of Emergency Preparedness sent teams to Louisville to work with local officials.

April 1. Mayor Frank W. Burke ordered more than 4,000 residents of Louisville's Portland area, the closest neighborhood to the salvage operation, evacuated for 24 hours during the critical stabilization attempt. Capt. Beatty halted the approach of his catamaran about halfway up the chlorine barge at dusk because of poor visibility.

April 2. At 10:57 a.m., the chlorine barge was stabilized. Portland residents returned to their homes.

April 3. Transfer of the liquid chlorine from the stricken barge to an adjoining empty one began.

April 6. Transfer of 400 tons of liquid chlorine completed. Removal of the remaining 240 tons began by allowing the chlorine to react in a "scrubber," which neutralized the poisonous chemical.

April 14. Last of the chlorine removed, and the emergency declared to be officially over.

[From the Courier-Journal, Mar. 26, 1972]

TROUBLED WATERS

LOCAL OFFICIALS SAY THEY WERE KEPT IN DARK, MADE FEW PLANS TO HANDLE CHLORINE HAZARD

(By Charles R. Babcock)

In a stormy meeting at Louisville's City Hall last night, local officials charged that the federal agencies coordinating salvage efforts on the chlorine-laden barge stuck in McAlpine Dam have not properly informed them of the potential danger so they could prepare emergency plans.

But when the bickering over who didn't coordinate with whom was finished, many of the approximately 50 law enforcement and government officials present were wondering whether the city had any emergency evacuation plan at all, in case one or all of the four 150-ton chlorine tanks on the barge ruptured and leaked poisonous gas over the metropolitan area.

Federal officials emphasized that the possibility is remote, but agreed precautions should be taken.

At one point during the 2½-hour session, Andrew Broaddus, Louisville-Jefferson County Civil Defense director said, "Our evacuation plans are nil."

Later, though, Donald O'Bannon, city traffic engineer, said, "We've got a plan, but it would take 16 hours at a minimum. And I'm not taking the responsibility of sending anyone out Brownsboro Road if there's a cloud of gas and the wind's blowing east."

Elaborating on his comments after the meeting, Broaddus explained that he didn't think evacuation plans were practical. "We can't even get people to Churchill Downs for the Derby," he said. "I guess you just have a plan to try to make you feel good."

Despite this pessimism over the work-ability of an evacuation plan, another meeting is scheduled for 10 o'clock this morning in the City Hall civil defense briefing room.

Being asked to appear are representatives of several federal groups not present last night, a circumstance that sparked the ire of several local officials including 3rd District U.S. Rep. Romano L. Mazzoli.

"This whole thing's been fruitless, a waste of time," Mazzoli commented as he left an hour and a half of discussion. "It's completely disorganized. . . . We put a lot of federal money into civil defense and we should certainly have some kind of plan."

Mazzoli asked at the meeting why there wasn't a qualified engineer or Coast Guard representative present to explain the situation.

Fifth Ward Alderman Bert Heuser Sr., who was acting mayor in the absence of Mayor Frank W. Burke yesterday, started the meeting by saying, "We anticipate that this barge may slip off the dam and burst and we'll have to evacuate 750,000 people."

He acknowledged later that this was "just something I heard."

At a press conference earlier in the day, federal officials had taken great pains to squelch just that kind of rumor.

Coast Guard Rear Adm. Owen W. Siler, who was called in from St. Louis to coordinate the salvage effort, had said, "We don't feel there is any danger at all at the present time. The barge is stabilized. It's just where it was last Sunday (when it broke loose from a tow and became lodged in the dam gate and should remain there.)"

At the briefing, federal officials had also outlined a tentative timetable for the salvage work and detailed their contingency plans for any emergency.

But local officials expressed dismay last night that they hadn't been told of the potential need for evacuation until Friday.

William C. McMillen, regional director of the Office of Emergency Preparedness in Atlanta, took the brunt of the criticism last night.

HOOSIERS ALERTED LOUISVILLE

"I've been here since noon Thursday. I've been pretty busy," he said, in answer to a Mazzoli question on why local governments hadn't been fully informed earlier. "One reason is that the planning has been fluid. Things have changed. The salvage crew just got in this afternoon, but I believe you have all the information you need now."

Despite the late start, governments in Southern Indiana seemed far ahead of Louisville in preparing an evacuation plan.

Jeffersonville Mayor Richard Vissing said that by working Friday and Saturday, police and government officials in his city, Clarksville and New Albany had prepared a plan, down to the name of the officer who would direct traffic at each intersection.

Provisions have been made to evacuate hospitals and nursing homes, he said, and to house evacuees temporarily in Seymour and Columbus, Ind., if the necessity arises.

The initiative of the Southern Indiana communities brought the potential seriousness of the situation home to Louisville Police Lt. Col. Vernon A. Austin.

"What really got me rolling was when my good friends in Indiana called and asked what evacuation routes we were taking, and that they wanted to reserve I-65 northbound for their people."

Maj. Louis Schweizer, communications chief for the Louisville police, complained that his department was too uninformed to tell excited callers what to do.

Many people at last night's meeting also were concerned about when the critical part of the salvage operation would come.

Colonel Austin said he'd been told that it would be today. Last night McMillen said there was no way of knowing. But he did say the most critical step in the salvage operation would be the effort to straddle the chlorine barge with a twin-hulled boat and then stabilize it further by fastening straps underneath.

"That'll be very delicate. We don't want to hit it, or do anything to disturb that barge," McMillen said. "We're not going to rush Captain Beatty (salvage expert John Beatty who arrived yesterday) on this at all."

WORK MAY START TOMORROW

At the press conference earlier yesterday, a Corps of Engineers spokesman said that part of the operation might start tomorrow and last until the end of the week.

Lt. Col. George S. Shields, the Corps' deputy district engineer here, said Beatty will start today by removing a barge loaded with sulfuric acid that is lodged against the side of the Louisville Gas & Electric hydroelectric plant, near the chlorine barge.

When the chlorine barge is stabilized, chemical experts will start pumping the chlorine to other tanks, a job that should take until about April 15.

Adm. Siler noted after the press conference that it should only take a day or two to pump the liquid chemical from the first two 150-ton tanks. But then, with the barge weighing 300 tons less, stability could again be a problem, he said.

The plan now is for Beatty to cut the barge in half after the top two tanks are emptied, Siler said. Then the dam gate—in which the barge is resting—will be dropped, and the catamaran moved to the other side of the dam to stabilize the remaining half of the barge. Its two chlorine-filled tanks will then be pumped dry.

The Environmental Protection Agency (EPA) has been monitoring the area around the barge for chlorine leaks.

EPA official Robert J. Bowden also noted yesterday that tests of the New Albany city water supply—the intake for which is three miles downstream from the chlorine barge—have uncovered no evidence of chlorine.

The potentially dangerous part of the salvage operation is the actual transfer of the chlorine and the possibility that a cloud of poisonous gas could move over the populated metropolitan area. (Liquid chlorine turns into a gas when exposed to the air.)

While chlorine would be "very damaging to the river and toxic to the fish," Bowden said, spilling it into the river would be preferable to having the gas in the air.

Thus, Bowden said, arrangements are being made with the Louisville Fire Department to have two pumpers standing by during the transfer. Each pumper can spray 1,000 gallons of water a minute.

If any chlorine escapes it is hoped it would be washed into the river by the spray, which he said will be mixed with sodium thiosulfate—a chemical that, in effect, neutralizes chlorine.

If chlorine did escape into the water, the New Albany water supply intake could simply be closed until the danger passed. The Indiana city has a two-day supply on hand at all times, Bowden said.

There are several sources of federal funds to help pay for the operation, Rear Adm. Siler said, including the OEP, the Coast Guard and the Corps of Engineers.

[From the Courier-Journal, Mar. 26, 1972]

ARE LOUISVILLE LOCKS A JINX FOR BARGES?

(By Charles R. Babcock)

Was it the law of averages catching up with Louisville? Was it pilot error in the swift current? Or was it simply the nature of "one of the most feared locks on the river?"

Why have there been three barge accidents just upstream from Louisville's McAlpine Locks in the past three weeks?

River experts from the Corps of Engineers, the Coast Guard and a local barge line raise several possibilities in discussing the accidents.

"Maybe it's like Murphy's law. When you have one accident, you have three," said John R. Bleidt, chief of operations for the Corps' Louisville district.

"I think they were pretty much coincidental," said Lt. Comdr. James Webb, officer in charge of the Coast Guard's marine inspection station here. "And there could be one or a dozen causal factors—the high water and swift current, inexperienced pilots, a lot of things."

Another factor could have been the Louisville and Portland Canal itself, according to Capt. Carl Shelton, a former river pilot and now a vice president of American Commercial Barge Lines in Jeffersonville, Ind.

"I'm really surprised we haven't had any more serious problems," he said, noting that currents and obstructions at the head of the canal have made the McAlpine Locks "one of the most difficult on the river" to navigate. Of the 46 locks on the Ohio River, McAlpine is the only one with a canal entrance, Bleidt noted.

On March 2, four barges broke loose and sank when a tow struck the Clark Memorial bridge after avoiding a collision with another tow.

A towboat pushing 12 empty barges in the canal nine days later got pushed sideways by a strong wind, ran aground and hit an electric tower.

And March 19, the swift current that runs down one side of Shippingport Island to the McAlpine Dam caught a nine-barge tow entering the slack water at the mouth of the canal. The tow got turned crossways in the channel and ran aground at the tip of the island, with four barges breaking loose.

Two of the barges—one containing poisonous liquid chlorine and the other hauling sulfuric acid—were carried downstream to the dam, where they still await salvage.

The March 11 and March 19 incidents involved tows getting turned crossways as they entered the canal. Capt. Shelton said he believes the swift current and two navigation hazards near the entrance contributed to the accidents.

RIVERFRONT DEVELOPMENTS INVOLVED

As tows approach the canal from the north, they are advised to hug the Kentucky shore to avoid the strong current that could push them away from the canal entrance and toward the dam.

Recent development along Louisville's riverfront—including 18 protective cells, each 20 feet in diameter, that sit in the river to shield the Riverside Expressway—are a mental hazard for the river pilots in Shelton's opinion.

"In both those accidents the pilots attempted to stay away from those shore structures (the protective cells). They stayed away too much, and the result was the damage," Shelton said.

Some barge line officials had opposed the intrusion of the development into the waterway and said so in public hearings during 1964. The cells and elevated expressway piers would be a "psychological" if not a real obstacle to navigation, they said then.

Capt. Shelton agrees. "It's intimidating," he said. But he's more concerned with another obstacle, and that's the Penn Central Railroad Bridge.

"I'm still very much interested in getting that bridge altered," he said. The mouth of the Portland Canal is 500 feet wide, but tows have only 241 feet of horizontal clearance to get through the bridge piers. And the span itself is so low that it has to be raised whenever tows pass under it.

The "real" obstacle of the bridge, and the "psychological" obstacle of the expressway's protective cells together make McAlpine "one of the most feared locks on the river," Shelton said.

The Corps of Engineers' Bleidt acknowledges that the bridge is a problem. "Maybe in the future, maybe because of these accidents, they might modify that life bridge. But money's the problem. That's the reason she's still sitting there now."

Coast Guard Lt. Cmdr. Webb agrees that the protective cells "could be a psychological factor, sticking up like that."

But to him experience is the key in navigation. "It's the best teacher," he said "Pilots who go through, who don't have enough experience, will encounter problems old pilots don't have."

McAlpine Lockmaster Willie Morgan defended the navigational stability of his locks by saying, "We've certainly had higher water than now, and tows have gone in and out with no trouble . . . The big difference is with the current and the dead water. And all the pilots should know this."

Morgan said that in January, 426 tows—with 3,064 barges—passed safely through his locks. In February, 430 tows got 3,071 barges safely through.

"Accidents have always happened and they always will," he said, however.

[From the Courier-Journal, Apr. 9, 1972]

COLLISION ON THE RIVER: SAFETY AND ECONOMICS—ARE LAWS AND LICENSES THE ANSWER?

(By Charles R. Babcock)

Statement: The nation's rivers are superhighways for "floating time bombs," barges filled with petroleum and chemicals that will inevitably trigger an "im-mense disaster" for some riverside community such as Louisville.

Statement: The nation's rivers are a vital link in the economy—a safe, economical means of transporting bulk cargo.

Both of these views have been articulated in recent times. The first was expressed by a Missouri Congresswoman who has been trying to stiffen federal requirements for river safety for the past decade. The second has been voiced by spokesmen for the barge and towing industry who say too much regulation will hurt the economy.

Each side has its arguing points.

Because of the three barge accidents on the Ohio River at Louisville's doorstep in the past month—one involving a chlorine scare—The Courier-Journal decided to explore the topic of river safety in some detail.

In extensive interviews this past week with representatives of industry, Congress, the Coast Guard and the Army Corps of Engineers, this reporter has sought answers to questions raised by the accidents—questions about river safety in the nation as a whole and in the Louisville area in particular.

Here are some of those questions and, in brief, some answers:

How much cargo is shipped on the rivers? How much through Louisville? How safe is it? The tonnage is considerable and going up steadily. Most of it is relatively safe—but then something happens every once in a while with a hazardous cargo, such as chlorine.

What are the present regulations governing traffic on the rivers? Barges that carry hazardous cargo are subject to yearly inspection. But the boats that push the barges needn't be inspected, and the pilots needn't be licensed.

What, if any, additional legislation is needed? Even industry spokesmen say the time probably has come for pilots to be subject to mandatory licensing. Critics outside the industry want to go further—requiring towboat inspections, for example.

What about the Ohio River at Louisville? Are improvements needed in the facilities here? Or was the recent rash of accidents just a coincidence? Some pilots complain of swift currents and obstructions at the entrance to the Louisville and Portland Canal. They say these problems could be corrected through engineering.

First, a look at river traffic.

Interstate Commerce Commission figures show that in 1969 15.6 per cent of all the tons of cargoes shipped on the surface in the United States went by inland waterways.

This compares with 41 per cent by rail, 22.2 per cent by pipeline, 16.8 per cent by truck and 4.4 per cent by Great Lakes shipping.

Of the river tonnage, Coast Guard studies estimate that perhaps 12 per cent would be classified as "hazardous." There are some 1,200 cargoes in this category from gasoline to chlorine. About 85 per cent of these hazardous cargoes are petroleum products.

River traffic through the Louisville area has increased rapidly over the past decade. Corps of Engineers statistics show that volume through the McAlpine Locks totaled about 34.4 million tons in 1970, compared with 21.3 million tons in 1960 and 7.4 million tons in 1949.

Accident figures are harder to come by. But Harry Morgan, a retired Coast Guard captain and chief of the National Transportation Safety Board's marine safety division, offers some statistics that indicate shipping cargoes on the river is comparatively safe.

A Safety Board study of fatalities from 1963 to 1968 shows that the pipeline industry had .01 death for every billion-ton mile traveled. The marine industry (rivers and Great Lakes) had a .31 figure for deaths per billion-ton miles, followed by railroads at 2.5 and trucking at 10.9.

In the Louisville accidents, of course, there have been no fatalities. But public officials were sufficiently concerned about the chlorine barge stuck on McAlpine Dam to evacuate thousands of people during sensitive stabilizing operations last weekend.

Just what is covered by present river safety laws?

Lt. Cmdr. James Webb, officer in charge of the Coast Guard's marine inspection station in Louisville, summarized the regulations in a recent interview:

Barges. The barges that carry hazardous cargoes are inspected by the Coast Guard. Building plans have to be approved. Construction is monitored. And each barge is certified every year.

Transfer of dangerous cargoes. The Coast Guard requires that certified tanker-men—with six months' experience handling that particular type of cargo—be on such barges to supervise transfers. And under a new law, the Coast Guard has begun checking such transfers at local terminal points.

Cmdr. Webb notes that in the last three months of 1971, there were 1,000 transfers of dangerous cargoes in the Louisville zone of the Ohio River, a 300-mile stretch from Carrollton, Ky., to Mount Vernon, Ind.

Traffic control. Under a measure passed by the U.S. Senate just last week, the Coast Guard would be able to prohibit the movement of dangerous cargoes altogether when river conditions are considered unsafe.

Towboats. There are stringent inspection laws on the books, but they cover only steam-powered boats, the type plied the rivers 100 years ago. Today 99 per cent of the boats on the river are diesel-powered. They are subject only to inspection for life preservers and portable fire-fighting equipment.

Pilots. At present, licensing of pilots is purely a voluntary thing. River experts generally agree that less than half the 10,000 to 12,000 pilots on the rivers have Coast Guard-issued licenses.

Because there is no licensing law, the Coast Guard has few teeth in its enforcement of regulations. Cmdr. Webb notes that if a pilot violates the "rules of the road," he can be fined up to \$500 but cannot be barred from the river. The Coast Guard has no authority to take away this voluntary license it issues, he said, no matter how serious the violation.

What additional laws, then, are needed?

Industry spokesman and Coast officials agree that there can be such a thing as too much regulation.

Cmdr. Webb says, "You can make it so safe that you can't move anything on the river. There has to be a happy medium."

Capt. Louis DeLong, director of the newly formed National River Academy

at Helena, Ark.—a nonprofit vocational school run by the barge industry to train pilots and other crew members—contends that America's ocean-going merchant marine was regulated out of business.

"It was so full of regulations, it drove us out of the market. There's no merchant fleet left," he says.

And he adds that any additional cost brought on by new safety precautions would be passed on to the American consumer in higher prices for their goods.

Still, many river experts say, mandatory pilot licensing may be an idea whose time has come.

Since 1962, U.S. Rep. Leonor K. Sullivan, D-Mo., has been trying to get such a bill through Congress.

It is she who described chemical and petroleum barges as "floating time bombs" and who has fought for required licensing to "eliminate the use of untrained and incompetent officers in the wheelhouse."

But until very recently, a spokesman at her office said last week, she had to fight the entire towing industry. "It was a rough road. There was only one barge line operator—from St. Louis—who supported us," the spokesman said.

Now even the American Waterways Operators—an organization of 250 of the country's barge lines—supports the idea. The bill passed the House last year and is scheduled for hearings before the Senate Commerce Committee at the end of the month.

One who is expected to speak in favor of the measure is U.S. Sen. Marlow Cook, of Kentucky, a member of the Commerce Committee. A spokesman at his office in Washington said the Louisville Republican plans to testify and make "pointed reference to the chlorine incident."

(The pilot of the chlorine barge—which is still stuck in McAlpine Dam—was unlicensed.)

But even the staunchest proponents of required licensing agree that it will be no panacea. Accidents will still occur. In fact, the pilots involved in the two other recent accidents at Louisville did have Coast Guard licenses.

Officials such as Cmdr. Webb insist that mandatory licensing would at least assure that all pilots are experienced, and know the river and its "rules of the road."

A pilot must have at least three years of experience on the river, including one at the helm, before the Coast Guard will allow him to take rigid physical and mental tests for the license.

"They volunteer to get a license," Webb said. "But once they say they want one, we make them earn it."

He said the written tests take two to four days, on subjects from ship-handling to life-saving to chart work to pollution-prevention to fire-fighting. Then there is a demanding physical.

Some pilots think the tests are too demanding. Sam Jones, of Corydon, Ind., who has been piloting towboats for 10 of his 36 years, says he knows of many river veterans—including himself—who have taken the tests and failed.

"The Coast Guard has such tight rules, it's not fair, he said.

Jones said he failed the physical because he has one bad eye. "My vision's 20-20 with glasses, but they make you take the test without them," he said. "I know the river. I've never had an accident. But I can't get a license."

He also complained that the tests aren't given orally. "It takes no education to work on the river, and some good pilots can barely read or write. But they can do the work. They can get a boat up and down the river. A lot of it is just not quite fair."

A shortage of pilots—licensed or unlicensed—is a major problem facing the towing industry, its spokesmen agree.

Braxton Carr, president of the American Waterways Operators, says, "There just aren't enough young men coming into the business. Maybe they want to work at home instead of being out on the river."

James F. Hunter, vice president of the Nashville, Tenn., line that owns the towboat involved in the chlorine-barge accident, says his company cannot require its pilots to be licensed. "There's just not enough pilots to go around," he said. Only three of his company's 16 pilots are licensed, he said.

Carl Shelton, a vice president of the world's largest barge line, American Commercial Barge Lines, of Jeffersonville, Ind., said more than half of his company's 120 pilots are licensed by the Coast Guard.

TOWBOAT INSPECTIONS SOUGHT

"Our company's in favor of the licensing bill," he said.

Insurance companies who specialize in covering barges, towboats and their cargoes, also—unsurprisingly—favor licensing.

Neare-Gibbs & Co. of Cincinnati is one of the country's larger marine underwriters. W. J. Piepmeier, manager of the company's loss department, said, "We don't require that our clients' pilots be licensed, but naturally we encourage it. There's just such a dire shortage of experienced pilots. . . ."

Although there is general agreement on the need for licensed pilots, there is opposition to other legislation Rep. Sullivan has proposed.

For instance, she wants towboats themselves to be subject to inspection. Industry spokesman Carr says, "There has been no demonstrated incidence that failure of towing vessels contributes to many accidents."

The Coast Guard has gone on record only as saying the issue should be studied.

But the Coast Guard is also trying to work out complicated formulas to determine how many tons of cargo a boat should push, depending on its size.

Rep. Sullivan and other critics say they believe many accidents are caused by underpowered boats—vessels too small to push today's increasingly larger tows in uncertain river conditions.

Other areas for possible legislation include the licensing of engineers, manning requirements for crews of towboats, and stockpiling of fire-fighting equipment—such as sophisticated types of foam for chemical fires—at strategic positions along the inland waterways.

Morgan of the National Transportation Safety Board has pointed out that most cities have absolutely no capability for fighting a major fire on the river. That includes Louisville, officials here agree.

What about the Ohio River at Louisville? Could changing currents or inadequate facilities have contributed to the accidents?

A look at the river at Louisville requires a short history lesson on the Falls at the Ohio and the McAlpine Locks and Dam.

The falls at Louisville—really a three-mile stretch of rapids—are the only falls on the river. The Louisville and Portland Canal that goes around them is also unique on the river.

The first system for bypassing the falls—the canal and locks—was completed in 1830. The Corps of Engineers took over the operation in 1874 and altered and improved the system over the years, including a first genuine dam in 1927.

A new lock, to accommodate a new generation of barges, was built from 1958 to 1961 and a new dam from 1961 to 1964. This new dam considerably altered the movement of traffic through the area.

The old dam was a series of movable wickets, more than a mile long. In high water, the wickets were simply lowered to the river bottom and tows could ride right over the dam, thus avoiding the locks and saving time.

The new dam, however, is concrete and "non-navigable." You can't go over it and avoid the locks even when the river is high. At this time of the year, nevertheless, water often runs over the fixed top of the dam, creating strong diagonal currents.

This crosscurrent, some river pilots say, makes the approach to the Louisville and Portland Canal treacherous. "There's a real outdraft trying to pull you out toward the dam in high water," an experienced pilot said.

Criticism of the McAlpine Locks centers on this tricky current, complicated by the narrow Penn Central Bridge just inside the canal entrance.

Corps of Engineers officials defend the reliability of their system. But Max-Bohrer, executive assistant to Col. John Rhett, engineer for the Corps' Louisville district, said a "postmortem report" on the chlorine barge accident will "study all aspects that might have contributed to the mishap."

This could "very well include" investigation of such subjects as the current and the railroad bridge, he said.

On March 19, the day the chlorine barge broke loose, the pool level above the dam was five feet above normal and two feet more than the top of the fixed dam. The outdraft was strong, experts agree.

But a Corps hydraulics expert, after determining pool levels for the past 40 years, said the upper pool is higher than normal only about 13 per cent of the time and high enough to go over the present dam only about 10 per cent of the year.

In addition to the current, some river pilots complain about obstruction at the head of the canal. Protective cells that line the Kentucky shore to shield the new Riverside Expressway create a "psychological" hazard that tends to make pilots shy away from the shoreline and the canal entrance, they say.

Another factor, some believe, is the placement of Coast Guard buoys.

A veteran pilot, who didn't want to be quoted by name, described younger river men as "buoy pilots." "They don't know the river, they just follow the buoys," he said. This practice took pilots out toward the middle of the river, he said, out toward the current going over the dam.

Coast Guard Lt. John Baker, commander of the Louisville Coast Guard group on River Road, said the buoys are used primarily to keep pleasure boaters out of the restricted area near the dam's upper gates.

"I don't think it would do much good to move them in toward shore," he said. "The tows just run over them anyway."

The Penn Central bridge has long been a pet peeve for river pilots.

Back in 1964, Capt. Carl Shelton, of American Commercial Barge Lines, said in a statement at a Corps of Engineers hearing that the entrance to the canal should be modified by:

Removing the protection piers above and below the bridge.

Widening the lift span from its present 241.5 feet to 500 feet, the width of the canal.

The bridge must be lifted so boats can pass under it.

Removing earth from the canal side of the head of Shippingport Island to allow for a greater deflection in the angle of entering and exiting tows.

However, Shelton's complaints about the bridge are not a record at the 2nd Coast Guard District's bridge section office in St. Louis.

A spokesman there said the file on the Penn Central bridge showed no request for replacing the lift span. A federal law provides for the replacement of bridges that are "unreasonable obstructions to navigation," he said.

The latest entry in the Penn Central Bridge file—a report of a routine inspection dated January 1971—did recommend the railroad consider installing a radio so that voice contact could be maintained with towboats.

Communication with the bridge has been another complaint by pilots. The present system is a series of whistles and lights. "We just don't know whether they're going to put the bridge up or not," one pilot said.

Jim Smith, one of the bridge operators, agrees that a radio would be a good idea. "It would make it a lot safer here," he said. He added that he didn't know why the Coast Guard recommendation hadn't been carried out.

[From the Courier-Journal, Apr. 21, 1972]

COAL BARGE MAY BE LODGED IN McALPINE DAM—ONE GATE CAN'T BE CLOSED

(By Kelly Cocanougher)

One of 13 barges that got away from a towboat early yesterday morning is believed lodged in the gates of McAlpine Dam.

The middle of the five upper gates wouldn't go all the way down late yesterday when locks officials attempted to lower it.

Army engineers declined to speculate what was blocking it, saying the water was too high to tell.

Other observers said there is no doubt what the obstacle is. Two coal barges, each carrying 1,300 tons of coal, sank in the immediate area of the dam.

Jack Woolsey, vice-president of operations for American Barge Lines, Jeffersonville, Ind., which owned the tow, said: "We're afraid that is our barge in the gates."

Engineers say the problem is not serious now. There is a possibility, they say, that the barge—if it is there—will wash on through when the Ohio River level goes down. The barge also could turn into a sizable salvage problem.

The barge could be wrapped around one of the big concrete piers or lying across the sill of the gate, one source said.

There are five upper gates—Nos. 5-6-7-8-9. The 1-2-3-4 gates are about a half-mile downstream. It was in the downstream gates (No. 2) that a runaway chlorine barge was stuck recently.

Each gate is 110 feet wide from pier center to pier center, leaving about 100

feet for the water to go through. The gates roll down from the top, in much the same fashion as a rolltop desk.

The No. 7 "desk" wouldn't roll yesterday. It hit something 15 feet from the bottom.

Just what that something is will be known definitely when the water drops 10 or 15 feet.

The river was falling slowly today, seven-tenths of a foot since it crested about noon yesterday. The upper gauge read 27.31 feet then, 4.3 feet over flood stage. At normal pool, the river is 15.3 feet lower at 12 feet on the upper gauge.

High water and swift current have been blamed for four towboat accidents here since March 2.

The river was flowing at 3.3 miles an hour yesterday. While that is only about as fast as someone would stroll on a sunny Sunday afternoon, it is more than twice the speed of the current at normal pool.

To towboat operators seeing their barges floating away, it is lightning fast. As Woolsey pointed out, accidents at normal pool are almost never heard of because barges are soon rounded up. Loose barges on a high river get away in a hurry, and when they hit something it is with considerable force.

[From the Courier-Journal, Apr. 20, 1972]

WATER CALLED BEST FOR MOVING DANGEROUS CARGO

Coast Guard Rear Adm. Owen W. Siler, who coordinated federal efforts during the recent chlorine-barge emergency, last night reaffirmed his belief that water transportation is the safest and best method of moving dangerous cargoes.

Siler was vigorously applauded several times by his audience, members of the Louisville Propeller Club, at a meeting at the Holiday Inn, 4805 Brownsboro Road. The club supports development of inland waterways and includes some industrial representatives.

Despite the barge incident, which for several weeks posed a potentially lethal threat to the Louisville area and caused a 24-hour evacuation of more than 4,000 residents, Siler said water transit "is probably the safest way to move quantities of substances, such as chlorine or sulfuric acid or oil, from one point to another."

The admiral, who commands the 2nd U.S. Coast Guard District, headquartered in St. Louis, predicted further changes in regulations governing water shipment of dangerous materials. But he said he doesn't expect "any preclusion of the transportation of materials—hazardous, as liquid chlorine, or pollutants, such as oil—by the cheapest means there is—by water."

Siler repeated his earlier belief that the chlorine barge was legally positioned in the tow when the March 19 accident occurred.

The admiral praised the untiring efforts of the Army Corps of Engineers and salvage operator Capt. John Beatty in stabilizing the barge and removing its cargo. And he strongly sided with Mayor Frank Burke's decision to evacuate the Portland neighborhood.

At the meeting's end, Siler was presented with a pair of cuff links and a certificate of appreciation from Jefferson County Judge Todd Hollenbach.

[From the Courier-Journal, Apr. 19, 1972]

COURT TO ASK U.S. TO REPAY BARGE EXPENSES

(By Chris Waddle)

Jefferson County Fiscal Court yesterday authorized officials to seek federal money to repay the county for its expenses in coping with the chlorine barge that stuck on McAlpine Dam recently.

Leslie J. Barr, federal programs director for Jefferson County, said the county government is entitled to be paid back for money spent related directly to the barge's removal.

Application under the Disaster Relief Act will be made to the U.S. Office of Emergency Preparedness in conjunction with Kentucky's Division of Civil Defense.

James Lynch, county finance director, estimated the bill will be "close to \$20,000," but said a final figure won't be known until personnel overtime records can be compiled.

But the department with the greatest expense in connection with the barge is

expected to be the police force, according to the finance director. He said officers accrued between \$10,000 and \$15,000 in overtime.

The county's Fiscal Court in other business yesterday sold \$3.3 million in school building revenue bonds.

Proceeds from the sale will go toward building a new Fairdale Elementary School and a Fairdale Vocational School building.

A syndicate account headed by J. J. B. Hilliard, W. L. Lyons & Company and Almstedt Brothers purchased the bonds.

Fiscal Court also adopted a new electrical code for areas of the county that are outside the city of Louisville and lack their own regulations on standards for installation of wiring and electrical equipment.

Also, approval was given to reimbursing about 300 county police officers who had paid a percentage of their salaries into a pension fund that was subsequently dissolved when a court ruled it unconstitutional.

Officers are now covered by a state pension plan, according to Col. Russell McDaniel, county police chief, who said rebates for the officers will be about \$234 for each.

And the Fiscal Court named seven public officials to an automobile accident review board that will investigate the circumstances surrounding wrecks involving county vehicles.

[From the Courier-Journal, Apr. 10, 1972]

BARGE SNAPS SOME CABLES, STARTS TO SLIDE DOWN DAM

(By Bill Knee)

As if it hadn't caused enough trouble already, that chlorine barge lodged against Louisville's McAlpine Dam broke some of its stabilizing cables about 9 p.m. yesterday and began to slide down one of the dam's lower gates.

Fortunately, all of the poisonous liquid chlorine had been removed from the barge by 7 p.m. Friday so there was no danger except that posed by taut, flying cables to workmen in the area.

Removal of the barge from the dam—the final, routine stage of the chlorine barge salvage operation—was scheduled to begin today.

Army Corps of Engineers officials ordered everyone out of the work area last night as they pondered whether to cut the remaining cables holding the barge to the dam.

One corps towboat already stationed below the dam was joined by other corps vessels in case they would be needed to retrieve the barge if it came through the dam gate.

Although the barge has a large hole in its stern, a corps spokesman said that its four empty chlorine tanks would keep it afloat—unless the tanks broke loose from the barge.

In that case, he said, the barge would sink, the tanks would float and the corps towboats would attempt to retrieve the tanks.

Until yesterday, Capt. John Beatty's catamaran vessel straddled the chlorine barge, providing additional stabilization. But Capt. Beatty backed his catamaran off of the barge in preparation for today's scheduled attempt to pull the barge off the dam with cables from the shore of Shippingport Island.

The barge was held in place on the sill of gate No. 2 by cables strung between it and the gate structure. Minus its cargo of 640 tons of liquid chlorine, the barge was much less resistant to the forces of a rising Ohio River.

Late last night, Capt. Beatty reattached some cables to the barge from his catamaran docked on the shore of Shippingport Island and began pulling the barge back into its original position against the dam.

A Corps of Engineers spokesman said Capt. Beatty would knock off for the night when the barge was back in place, and the regularly scheduled attempt to pull the barge off the dam would probably take place today.

[From the Courier-Journal, Mar. 3, 1972]

BARGE SLOWS POWER GENERATION—INTAKE OPENINGS BLOCKED

(By Larry Werner)

Although most concern resulting from last Sunday's Ohio River barge accident has centered around a potentially dangerous chlorine-laden barge lodged against a gate of McAlpine Dam, a second barge from that accident is causing

a more immediate problem at the Louisville Gas & Electric Company hydroelectric plant next to the dam.

That barge, containing sulfuric acid, is resting against three generator intake openings and has caused three of the plant's eight generators to be shut down, according to Frank R. Fain, Jr., plant manager.

The barge itself is cutting down the flow of water through the water-powered generators, and the barge's position alongside the plant has prevented workers from removing debris from screens over the intake openings.

"If we could have cleared the drift out of the units, we could be producing kilowatts today," Fain said yesterday.

But removing the driftwood and other debris must wait until after the acid barge is moved—probably on Saturday.

And things might get worse for Fain before they get better: a fourth generator is also being slowed down in its production of electricity by the barge and may have to be shut down also, he said.

To Fain—whose job is to keep the generators running as much as possible—the downed generators are lost productivity.

"We never like to shut down," he said.

And the interrupted production is made more bothersome by the fact that seasonal changes in the river level shut generators down periodically. Additional shutdowns caused by runaway barges only add to Fain's difficulties.

But the generator shutdown won't affect LG&E customers, a company spokesman said yesterday.

"When this plant went into operation, it was a big part of our total production," the spokesman said. "It's still important, but it produces a smaller percentage of our total capacity than it used to."

The spokesman said most of the electricity used by LG&E customers is produced by other plants powered by coal or other means. So a slowdown at the hydroelectric plant can be made up at other installations.

However, the spokesman added, the shutdown still means money to LG&E.

"What we have to do is make that up another way, like buying coal," he said. "We're not complaining, but it (the acid barge) has had its effects."

The Army Corps of Engineers announced Wednesday that the sulfuric acid barge will probably be removed Saturday, when West Virginia salvage expert John Beatty arrives in Louisville.

Beatty has been hired by the Corps of Engineers to remove the acid barge from the channel leading to the dam and to begin the delicate operation of stabilizing the chlorine barge so the chlorine from tanks aboard it can be transferred to tanks aboard another barge.

The "easy" job—removing the acid barge—will be done first, the engineers announced Wednesday. The operation to remove the chlorine may take until the middle of next month.

The Corps of Engineers announced yesterday that Rear Adm. Owen W. Siler, commander of the 2nd Coast Guard District, has arrived in Louisville to assume command of the chlorine-removal operation.

Also working on the operation are three representatives of the federal Office of Emergency Preparedness, three representatives of the federal Environmental Protection Agency and a number of other chemical and river experts.

[From the Courier-Journal, Apr. 20, 1972]

TOW BREAKS, BARGE LODGES AGAINST DAM—CHEMICAL CARGO

(By Kelly Cocanougher)

Another tow broke up on the flooding Ohio River before dawn here today, reportedly setting another chemical barge loose against the McAlpine Dam gates.

About the same time, 115 miles downstream at the Cannelton Dam, a tow reportedly broke up and three oil barges caught fire. The pilot was missing.

The U.S. Coast Guard said the accident here occurred about 3:30 a.m. at Towhead Island, about a half mile upstream from the John F. Kennedy Bridge.

Thirteen barges were said to be loose on the high water. Six reportedly lodged under the Kennedy Bridge.

One containing styrene was said to have floated downstream and lodged against the upper gates of the dam. The chemical is used in making synthetic rubber, resins and plastics.

Styrene is classified as hazardous cargo but its vapors are not deadly, as in the case of chlorine, according to a spokesman at the Coast Guard station here.

Officials ruled out any possibility of the barge presenting the threat of trouble caused by the chlorine barge that lodged in the McAlpine gates March 19.

Transferring the chlorine took a massive effort and was completed only early this week. That barge was lodged in the dam's lower gates, and the Louisville Gas & Electric Co. generating plant.

The styrene is against the upper gates, causing no trouble at present, according to reports.

Two barges were believed to have gone over the dam, but not through the gates. The river is four feet above flood stage, and high water spills over the dam.

One barge is presumed sunk, position unknown. One was retrieved, and two reportedly lodged against the Penn Central drawbridge that crosses Portland Canal and the Ohio River at 14th Street.

Penn Central traffic controller Ed Schaefer said train traffic on the bridge had been slowed from 15 miles an hour to 5 m.p.h. because of the barges. He believed the slower traffic was ordered to keep vibrations at a minimum.

The towboat was the Floyd H. Blaske, a 5,000-horsepower diesel owned by American Barge Lines of Jeffersonville, Ind. It had gone upstream, through McAlpine Locks, about 11 p.m. yesterday.

In the Cannelton incident, according to Lockmaster John Woolsey, the three barges were preparing to go through the locks when the current apparently caused them to break loose from the towboat. One barge struck the side of the dam, exploded and burned. It was still lodged there and burning at midmorning.

OTHER BARGES BURN

The other tow barges went through the locks, one burning and sinking near Hawesville, Ky., across from Cannelton, and the other burning near Troy, Ind., about 7 miles downstream from the dam.

The barge wedged at the dam set fire to a wooden bridge that crosses the dam and the bridge was heavily damaged. The accident occurred at 4:05 a.m.

The missing pilot of the tow was identified as R. W. Griffin. There was no indication what might have happened to him.

Three crewmen were hurt, none believed seriously. They were treated at the Perry County Memorial Hospital.

Indiana State Police headquarters in Indianapolis said damage to the Cannelton Locks, a major facility in the Ohio River navigation system, might amount to \$5 million to \$6 million.

[From the Courier-Journal, Apr. 21, 1972]

PILOT LOST AS BARGES BURN—TOW WRECKED AT CANNELTON

(By Bill Cox)

HAWESVILLE, KY.—The Ohio River burned bright orange last night at the Cannelton Dam as flaming gasoline continued to leak from a barge that smashed into the dam at 4:05 a.m. yesterday.

Pilot R. W. Griffin, 58, of Brookport, Ill., is missing as a result of the accident, and two members of the crew were hospitalized.

Corps of Engineers officials estimated that as much as 3 million gallons of gasoline and diesel fuel may have been dumped into the Ohio. A powerful odor of gasoline hung last night over river towns as far downstream as Rockport, Ind., 25 miles to the west.

The gas and oil are not a serious health hazard, however, according to officials of the federal Environmental Protection Agency at Evansville, Ind. Because much of the gas and oil was burned away immediately after the crash, the river—now about 4 feet above flood stage—apparently has diluted the pollutants, the EPA said.

Louisville and Cannelton incidents bring to 10 the number of Ohio River barge accidents since October, Page B 9.

The nearest water intake systems for municipal water works are at Henderson and Evansville, and because of flood waters, the intake pipes are well below the surface of the water where oil and gas may be floating, EPA sources said.

Lockmaster John Woolsey gave the following account of the accident:

About 4 a.m. yesterday the towboat Thomas W. Hines, pushing three barges, was preparing to enter the Cannelton locks on the Indiana side of the Ohio. Before it reached the locks, however, the towboat and barges began drifting toward the Kentucky side, apparently being pulled along by powerful river currents.

As the towboat and barges came closer to the dam, the river currents turned them completely around so that the towboat was ahead of instead of behind the barges.

The boat—with its stern now pointing downstream—smashed into a temporary bridge that had been erected along the dam.

At this point, the barges became disengaged from the towboat and the boat passed through one of the dam's six gates—the one nearest Kentucky. Immediately the barges either slammed into each other or one of the gates, causing a huge explosion that sent flames hundreds of feet into the air.

Two of the barges, one of them empty, passed through one of the gates and the third barge slammed into a pier a few yards from the Kentucky shore, lodging on its side between the pier and gate 6.

The towboat, with eight of the nine crew members aboard, was carried about one-half mile downstream from the dam and was beached on the Indiana side.

The towboat's engineer, Bob Haynes, of Bowling Green, Ky., was credited with saving the lives of the eight crew members other than the pilot, who apparently was lost overboard when the towboat and two barges went over the dam.

Finding the pilothouse empty, Haynes took control and steered the boat away from a mass of flames that developed below the dam.

The barge carrying gasoline and diesel fuel, partially damaged by the explosion, floated about eight miles downstream to near Troy, Ind., where it sank. Most of its cargo poured out and burned on the Ohio near the dam, Coast Guard officials said.

A construction company recovered the empty barge near Tell City, Ind.

For two hours after the accident, a three-mile stretch of the Ohio was filled with floating islands of fire. Witnesses reported thick, black smoke covered the river from west of Tell City (about five miles from the accident) to the dam.

Despite the patches of flaming gasoline, there were no reports of damage to other river craft or to property along the river, according to the U.S. Coast Guard.

The Coast Guard had no information about the fate of the missing pilot, Griffin, but John T. Dorr, a deck hand on the Thomas Hines, said he saw Griffin's life jacket floating in the river just after the boat was washed through the gates.

"We turned lights out toward the river but we didn't see him. I looked down and saw his life jacket and floating right next to it was his flashlight, still lit," Dorr said. Dorr, 18, of Slidell, La., was admitted to Perry County (Ind) Hospital after the accident and was listed in fair condition last night.

Griffin had about 35 years' experience as a river pilot, according to the commander of the wrecked tow, Cap. Max Reagor of Karnak, Ill.

Reagor was asleep when the tow went out of control. He said he awakened to find the towboat headed stern first through the gate of the dam.

The other injured member of the crew was the cook, Miss Mary Mercer, 45, of Memphis, Tenn., who also was listed in fair condition last night at Perry County Hospital.

Both Miss Mercer and Dorr credited the engineer, Haynes, with saving their lives after he had steered the boat away from the flames below the dam.

Miss Mercer had been knocked into the boat's hold when the craft went over the six-foot-high falls between the two levels of the river here.

Waves of water crashed into the hold, quickly threatening her with drowning. "I was sure I was drowning," she said later in an interview in her hospital room. "But Bob Haynes came down and pulled me out."

Dorr also credits Haynes with saving his life.

"I was asleep when all this started to happen but Haynes came in to wake me up and then helped me get into a life jacket," Dorr said.

Haynes has spent the last 25 years on barges and tugs. He made little of his own actions but praised Griffin, the boat's pilot was missing.

"Just before we ran into trouble, Griffin called to the two men riding the barges and told them they ought to come aboard the boat. I'm sure the men would have been blown up if they had stayed on the barges."

The explosion blackened three of the dam's huge metal and concrete gates, but Corps of Engineers officials had not determined total damage to the unfinished structure. The dam, about 80 per cent completed before the accident, is being constructed at a cost of more than \$70 million.

"At this point we are more concerned about the possible danger to river traffic the burning barge presents than estimating damage," Lt. Col. George Shields, deputy district engineer of the Louisville Corps of Engineers District, said.

"The river is just too high to get a good look, and since the stranded barge could explore again, it's just impossible to get close enough to make an accurate estimate of damage," he said.

The lock is expected to be closed at least two days.

Richard Powers, of Hawesville, who owns a restaurant that overlooks the dam from a high bluff, said black smoke from the fires was as high as his restaurant an hour after the accident.

"When I woke up, I knew something was wrong because when I looked outside the gravel in the driveway looked pink," he said. "Then I saw what was happening. The flames in the sky were reflecting on everything—everything looked pink."

The towboat was owned by Hines, Inc., of Bowling Green.

[From the Louisville Times, Apr. 21, 1972]

BARGE CONTINUES BURNING AT THE CANNELTON DAM

CANNELTON, IND.—Flames were still flickering today from a gasoline-laden barge that crashed against a pier of the Ohio River's Cannelton Dam yesterday. Officials said it may be several more days before the fire dies out.

A string of three barges broke loose near the dam and exploded about 5 a.m. yesterday. The towboat pilot, Roland W. Griffin, 58, of Brookport, Ill., has been missing since the accident.

An Army Corps of Engineers spokesman said today that two of the tow's other eight crew members remain in satisfactory condition at Perry County Memorial Hospital near Cannelton. Another crewman was treated and released.

The corps source said most of the barge's 1.5 million gallons of gasoline is believed to have burned or drained into the river. He said no attempt will be made to move the barge until the fire burns itself out.

"We're just going to let the thing burn for awhile," he explained. "That's the safest thing we can do."

Using open flames from welding torches or steel cables that could cause sparks in trying to salvage the barge now, the corps official said, could ignite fumes from any of the barge's 10 storage compartments.

ONE BARGE BELIEVED SUNK

One of the barges in the string was empty. The other, containing about 27,000 barrels of gasoline and fuel oil, is believed to have sunk downriver near Troy, Ind. A U.S. Coast Guard unit from Owensboro, Ky., spent yesterday morning dousing dozens of burning gasoline and oil slicks, but was unable to locate the missing barge.

HEAVY CURRENTS FACTOR IN MISHAP

Cannelton lockmaster John Woolsey said the towboat, the Thomas W. Hines, was preparing to enter the Cannelton locks on the Indiana side of the river when the mishap occurred. He said the towboat and barges apparently were caught in heavy currents in the rain-swollen river, causing the towboat to swing around ahead of the barges.

The tow smashed stern-first into a temporary construction bridge rigged to a coffer dam (the Cannelton facility is still under construction). The barges broke free, then passed through the dam gate nearest the Kentucky side. The barges crashed into each other or one of the gates, exploding some of the fuel.

Flames leapt hundreds of feet skyward and blackened several of the dam's steel gates, melting metal railings and loosening concrete around the steel-reinforced piers.

Witnesses said there were six to eight explosions in a five- to 10-minute period. The commander of tow, Capt. Max Reager, of Karnak, Ill., regained control

of the boat after it swept through the gate and nosed it against the Indiana shore. Crew members said pilot Griffin apparently jumped overboard when the barges began to break loose.

A deckhand, John T. Dorr, said he saw Griffin's life jacket floating in the river after the tow washed through the gate. The Coast Guard had no information about the missing man today.

ENGINEER CREDITED WITH LIFESAVING

Dorr and the tow's cook, Miss Mary Mercer, 45, credited engineer Robert Haynes with saving their lives. Miss Mercer had been knocked into a flooded hold after the tow went over the six-foot falls between the two levels of river here.

"I was sure I was drowning," she said later at the Perry County hospital. "But Bob Haynes came down and pulled me out."

Dorr also credited Haynes with saving his life.

"I was asleep when all this started to happen but Haynes came in to wake me up and then helped me get into a life jacket," he said.

Another crew member, Belford Wells Jr., 32, said damage to the tow, which was bound for Paducah, Ky., was extensive. He said the interior of the craft, owned by Hines, Inc., of Bowling Green, Ky., was clogged with furniture, equipment and other debris that had been dislodged in the trip through the dam gate.

Woolsey said today that operations at Cannelton locks closed down yesterday afternoon because of high water and the barge accident. He said waters here are about four feet above flood stage.

A corps spokesman said about 550 boats pass through the Cannelton locks each month. The \$85 million complex, he added, is expected to be completed sometime in 1973.

BARGE FIRE ALLOWED TO CONTINUE BURNING

(By Bill Cox)

HAWESVILLE, Ky.—No effort will be made to extinguish the fire on board the gasoline barge that smashed into the Cannelton Dam Thursday, the Corps of Engineers said yesterday.

"We're going to allow the gasoline fumes to continue to burn in the hope all the fumes will be consumed," Lt. Col. George Shields, deputy district engineer for the Louisville Corps District, said.

Col. Shields said if the vapors are allowed to build up inside the barge, it could explode when salvage operations begin.

"The remaining gasoline would have to be extracted before salvaging begins," he said. "Why not let it just burn away now?"

PLANS MADE TO TEST GATES

No gasoline has leaked into the river from the barge since Thursday night, corps officials said. The barge, still firmly pinned against gate 6 of the dam, had a cargo of 1.5 million gallons of gasoline—most of which escaped and burned when the barge collided with the dam at 4:05 a.m. Thursday.

Meanwhile, heavy rains along the river throughout most of yesterday made it more unlikely that the body of Rolland Griffin, 57, missing pilot of the towboat Thomas W. Hines, will ever be recovered, Coast Guard officials said.

The towboat was pushing the barge—and two others—when the accident occurred.

No decision has been made about when salvage operations will begin, James Hines, president of Hines, Inc., owner of the barge, said yesterday. The firm is based at Bowling Green.

"The river is just too high to make any plans about when and how we will attempt to remove the barge," he said.

Heavy rains and the possibility of another explosion aboard the barge kept the Corps of Engineers from closely observing the extent of damage to the dam but plans were being made to test the three south gates to determine if Thursday's fires weakened the structures.

Heat from the flames was so intense that concrete along one pier was melted away, exposing the reinforcing steel mesh below, it, a corps official said.

[From the Courier-Journal, Apr. 22, 1972]

ANOTHER BARGE IN DAM GATE NOT BIG WORRY

(By Charles R. Babcock)

There seems to be another barge stuck in a gate at McAlpine Dam, but the Corps of Engineers and barge line officials say they're not overly concerned about it at the moment.

For one thing, this barge—sunk when a 13-barge tow broke up Thursday—contains coal, not a hazardous substance like the chlorine cargo on a barge caught in another gate downstream recently.

For another, the river is so high now that gates are not needed to control the pool level as they are during the dry season.

Corps officials first became aware of the potential problem when the five upper gates were lowered into the water after the accident Thursday. The middle gate would not go all the way down.

"We won't know it's the barge for sure until the river goes down another five or six feet," Jack Bleidt, operations chief for the corps' Louisville district, said yesterday. "And that won't be until probably the middle of next week."

Then corps and American Commercial Barge Line officials can talk more knowledgeably about salvage operations. A spokesman for the company, which owns the tow that broke up, said yesterday that the firm had made no decision yet on how to salvage the vessel.

"But I'm confident that we can take care of it, either ourselves or through a subcontractor," the official said.

The blocked gate probably wouldn't be a problem unless there are severe drought conditions in the summer, Bleidt said. In that unlikely event, he said, the dam's five upper and four lower gates would all need to be closed to conserve the water in the pool at Louisville.

The chlorine barge was lodged in a lower gate of the dam, about a half-mile downstream.

[From the Courier-Journal, Apr. 23, 1972]

MOST OF GASOLINE GONE FROM BARGE

CANNELTON, IND.—About 80 per cent of the 1.5-million gallons of gasoline has burned off or leaked from a barge lodged in the Cannelton Dam here. Locking operations were scheduled to resume late yesterday.

The lockmaster said "only a small flame" was visible from the barge, which was one of three barges and a towboat that slammed into the dam early Thursday. Rolland Griffin, 57, Brookport, Ill., the towboat pilot, is missing and presumed dead.

The lockmaster said 19 towboats, including 10 northbound and nine southbound, were waiting to lock.

A spokesman for the U.S. Army Corps of Engineers said 80 per cent of the gasoline had burned or leaked out of the barge since the mishap and it had been determined that one compartment containing 6,400 gallons was not ruptured.

Martin Pedigo of the corps said a decision had been made to let the barge burn itself out. There was no estimate of when the barge fuel would stop burning.

Pedigo said letting the barge burn itself out was the "safer" course because any pumping operation might result in vapors causing an explosion.

[From the Courier-Journal, Apr. 21, 1972]

OHIO RIVER TOWS IN 10 MISHAPS SINCE OCTOBER

Counting yesterday's three mishaps—one at Louisville, one at Cannelton, Ind., and one at Wheeling, W. Va.—at least 10 separate incidents involving barge collisions, sinkings or explosions have been reported on the Ohio River since last October.

The accident that generated the most publicity happened March 19, when three barges being towed to a chemical plant in western Louisville broke away from their tow just above the narrow channel in front of the McAlpine Locks and Dam.

One of the three was the chlorine-laden vessel that lodged in one of the dam's gates and prompted a 24-hour evacuation of the Portland area of Louisville before it was secured. Its potentially lethal cargo was safely removed last Friday.

The story dominated the local headlines for weeks, but some other accidents on the Ohio were also extremely serious. Here is a capsule review:

Oct. 26, 1971. Several barges containing the highly volatile chemical compound methanol exploded near a bridge spanning the Ohio at Brandenburg, Ky., about 40 miles southwest of Louisville. The explosion followed a collision of barges from two tows. It shattered windows in nearby homes and the barges burned for hours before the flames were brought under control. No one was injured.

Jan. 7, 1972. Two men were killed, two bridges damaged and two cities along the river bombarded with debris when two barges collided and then exploded beneath a railroad trestle spanning the river at Belpre, Ohio, above Cincinnati.

Nine persons were injured as a result of the accident. The two vessels, both carrying gasoline, crashed into each other as they were being emptied beneath the bridge, which connects Belpre and Parkersburg, W. Va. The force of the explosion could be felt as far as 19 miles away, observers reported.

March 2. Four barges sank after a tow struck the Clark Memorial Bridge at Louisville and its 11 barges broke loose.

The four sunken vessels haven't been recovered as yet, but the other barges were retrieved.

March 11. A towboat propelling 12 empty barges ran aground at 13th Street in Louisville when a gust of wind blew the tow off course.

The towboat struck a 150-foot-high electric tower at the water's edge, bending the tower almost to the ground and interrupting the power supply to several local radio stations, some of which were off the air for more than an hour.

March 19. The accident involving the chlorine barge occurred. The vessel was part of a nine-barge tow that was turned crossways by heavy winds as it entered the navigation channel at Shippingport Island.

While the chlorine barge lodged in a gate of the McAlpine Dam another barge in the tow, containing sulfuric acid, struck against a wall protecting generator intake openings at the Louisville Gas & Electric Co. hydroelectric plant next to the dam. That barge also was removed, although for a time is caused three of the plant's eight generators to shut down.

April 16. Twenty-one empty barges broke from their mooring at a marina near Newport, Ky., but were recovered with no serious problems.

April 18. Five barges tied to a mooring at a construction site of the Interstate Highway 471 bridge between Newport and Cincinnati broke loose and began floating downstream. They were retrieved by tugs within two hours.

Coast Guard and other officials on the river have repeatedly emphasized that while "accidents will happen," most barges move along the Ohio without any difficulty. In January alone, according to McAlpine Lockmaster Willie Morgan, 426 tows with 3,064 barges passed safely through the locks. In February, 430 tows got 3,071 barges through safely, he said.

[From the Courier-Journal, Apr. 21, 1972]

13-BARGE TOW BREAKS UP IN CURRENT AT LOUISVILLE

(By Charles R. Babcock)

A company official likened the predawn breakup of one of his tows on the Ohio River at Louisville yesterday to the story of the shepherd who lost his whole flock because he chased a few strays.

"If only he'd let the strays go," said Capt. Jack Wofford, "He might have saved the rest of his sheep.

"But then hindsight is 20-20," he confessed. "I might have done the same thing."

George Hester, pilot of the towboat Floyd H. Blaske, was maneuvering a 13-barge tow in the flood-swift river current at Towhead Island about 2 a.m. when a cable snapped, or slipped, scattering the four lead barges.

Hester let the Blaske drift backwards downstream, trying to recapture the runaways. Instead he backed into the Big Four Railroad Bridge and lost the rest of his barges, too.

Two sank, but the rest—including one containing a flammable chemical, styrene—were recovered without difficulty. No one was injured.

"I probably should have let the four barges go," Hester said in a ship-to-shore phone interview late yesterday afternoon. "It was a matter of split-second timing, and I just made the wrong move.

"In the same situation next time, though, I'd probably do it again," he added. The tow was on a trip upstream to Pittsburgh from New Orleans.

The accident was the fourth involving barges on the Ohio River at Louisville in the past six weeks. But it was minor by comparison with the March 19 incident, when a barge loaded with potentially lethal chlorine was lodged in McAlpine Dam's lower gates. That danger passed only last week, after the chlorine was pumped out and the barge removed.

"You're going to have more chance for accidents when the river's up like this," Capt. Wofford said yesterday.

Both Wofford, vice president of operations for American Commercial Barge Line Co. of Jeffersonville, Ind., and his pilot agreed that if yesterday's current had not been so swift, the towboat Blaske would probably have recovered the four runaway barges without difficulty.

"You'd have never known there was an accident," Wofford said. "But that current just carried them downstream so fast."

Officials of the U.S. Coast Guard and Army Corps of Engineers said they thought high water producing "unusual currents" was a major factor causing the barge mishaps yesterday at Louisville and at the Cannelton Dam.

Lt. Col. George S. Shields, the Corps' deputy engineers for the Louisville District, said the Louisville mishap wasn't a serious problem.

He and other officials focused most of their attention on Cannelton dam, where a barge carrying oil and gasoline had exploded and sunk—sending an oil slick down river—and another barge carrying gasoline was burning.

Shields said he didn't know of any structural damage to McAlpine Dam's upper gates where some of the runaway barges struck.

With the sinking of the two coal barges yesterday, there are now a total of six sunken barges in the vicinity of McAlpine Dam—the result of accidents since March 2.

Pilot Hester said his tow was lying parallel to Towhead Island a little after 2 a.m., waiting for the harbor boat Joe Taylor to add six more barges to the tow for the journey upstream.

"I really can't say exactly what happened," said the 37-year-old pilot from Creole, Miss. "My deck crew had taken some excess rigging off two of the lead barges. Ten or fifteen minutes after they came back, I noticed the four lead barges 'topping over' to port."

While he is unlicensed, Hester is a veteran of 19 years on the river.

Neither Hester nor Wofford could say what caused the mishap, but the pilot said, "Undoubtedly something broke." The lead barges were connected to the rest of the tow by one-inch thick steel cables.

Wofford noted that the lines had been loosened some as the Joe Taylor moved in. "In that high current, a little movement could cause the cable to snap," Wofford said.

The four lead barges—two containing coal, one lime, and one rock salt—drifted back past the tow and Hester quit "treading water" in the current and drifted back, too, trying to get a line on his strays.

"I got a line on it once, but it slipped off and I didn't have another chance," Hester said.

The current, which Hester estimated at 3½ miles an hour, had carried the tow into the Big Four Bridge. The barge containing styrene, the rear barge in the formation, hit a pier and all but one of the barges broke away from the towboat Blaske.

Six barges filled with coal for the Madison, Ind., power plant, were recovered from a pier of the Kennedy Bridge about daylight.

Two more, carrying lime and rock salt, were swept over McAlpine Dam and recovered downstream.

The four others ended up in the vicinity of the dam's upper gates. Two of the four, loaded with 1,300 tons of coal each, sank. One went under by the nearby Penn Central Railroad Bridge pier and the other is believed to have sunk in one of the upper gates.

The styrene barge was caught between the dam gate and another pier of the bridge. There was a hole in the outer skin of the barge's bow, Capt. Wofford said, but none of the liquid chemical was spilled.

The styrene was being taken to the Monsanto Chemical Co. plant at Addyston, Ohio, just south of Cincinnati, Wofford said. Styrene is used in making plastics, resins and synthetic rubber.

It is labeled hazardous by the Coast Guard because it is combustible, but an American Commercial chemical expert said, "I think you could put a blowtorch to it and it wouldn't burn."

Styrene vapors are irritating, but not considered lethal. Thus there was not the danger of the recent chlorine barge incident.

All the floating barges were recovered by 10:30 a.m. Wofford said seven boats helped round them up.

Late yesterday, Wofford said his company was trying to patch the hole in the styrene barge so the Blasko could continue upstream last night.

He said he could not estimate the value of the coal on the two sunken barges, but said that new barges—to replace the two that sank—cost about \$100,000 each.

[From the Courier-Journal, Apr. 22, 1972]

MORE THAN GOOD—MISSING RIVERBOAT CAPTAIN CARRIED

(By Bill Powell)

BROOKPORT, ILL.—In 41 years as a river pilot—beginning as a husky teen-ager at the wheel of a drab little tugboat hauling mussel shells to a button factory here—Capt. Rolland Griffin had never experienced a serious accident.

Now, as a result of the first one, he is presumed dead—lost in the swollen Ohio River that flows past this small Southern Illinois town where he had made his home.

Capt. Griffin, a 57-year-old native of Paducah, located just across Irvin S. Cobb Bridge from Brookport, was in the pilot house of the towboat Thomas W. Hines as the 117-foot-long craft prepared to pass through the Cannelton, Ind., lock with its three-barge tow just before dawn Thursday.

In the nightmare that unfolded—as the tow broke up in an exploding disarray and the towboat was swept through one of the six gates of the dam—Capt. Griffin vanished.

A deckhand said he saw Griffin's life jacket and flashlight, still burning, in the churning water.

But no other trace of him has been found by searchers as of yesterday afternoon.

Griffin was in the 11th grade at old Augusta Tilghman High School of Paducah when he decided to follow his father, Capt. Harry Griffin, owner of the tiny mussel tug, as a riverman. At 16, he took the wheel of the boat under the guidance of his father and from that day on he remained a pilot.

In the fraternity of rivermen—where they know that the lives of boatmen frequently depend on the sensitive judgment and quick action of the pilot—Griffin had an outstanding reputation.

"He was more than a good pilot. He was very good," said Robert Williamson, a 37-year veteran of the U.S. Army Corps of Engineers who is lockmaster of Dam 52 near here.

"Yes, he was good. He was outstanding," said Vic Durall, a 30-year employe of the corps at Dam 52. "I knew him since he was just a kid . . . pretty soon after he started running that mussel boat."

Warren Hines, vice president of Hines Towing Co., Inc., of Bowling Green, owner of the ill-fated towboat, joined in the praise of Capt. Griffin.

"He joined us 13 months ago. He had a fine record and was highly recommended. He was a very good pilot," Hines said yesterday.

Griffin had a master pilot's license for the Ohio, Cumberland and Mississippi rivers. He was permitted to pilot in all tonnage classes. He always worked at the pilot's wheel and later at the complicated controls of the modern towboat.

During World War II, he was frozen to his job, helping the Coast Guard bring landing craft and machines down the rivers to the Gulf.

At times, he had been a "tripper," a pilot hired by the job. But he had been employed by the Hines firm, operator of five towboats, on an annual basis.

Griffin married Miss LaWanda Roberts, daughter of Carl Roberts, operator of one of the Brookport button factories served by the Griffin boat.

She is a nurse's aide at Western Baptist Hospital in Paducah.

The family is closely connected with the river.

One of the Griffin's daughters, Mrs. Tilghman Keeling, is secretary for George Crounse, operator of a large Paducah-based towing company.

Their other daughter's husband, Lonnie Scott, is a Crouse river engineer.
The captain's brother, William, is a pilot for another Paducah towing company.

Griffin and his father, who is dead, both worked for Iger Towing Co. of Paducah after they stopped running the mussel boat. Capt. Griffin had been employed by several large towing companies before joining the Hines corporation.

Warren Hines said it cannot be determined just how Griffin was lost. Although the boat tipped over after striking the gate, the pilot house remained intact. The radar scanner on top of the pilot house was undamaged.

A crewman said Griffin might have been standing in the door or on the catwalk outside when the collision took place. Someone said they heard him shout to crewmen to "get back on the boat" as the boat and tow began to shift away from the lock and toward the dam.

The crewmen did so, as the towboat, helpless despite its 1,800-horsepower diesel engines, began moving toward danger in the swift waters—spinning around so that the boat was in front of the tow instead of behind it.

"Only the captain knows what took place up there in the pilot house, and he is gone, I'm afraid," Hines said.



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