to the members of the National Association of Engine and Boat Manufacturers, Inc.; to such associations as the American Boat and Yacht Council, Inc.; the National Fire Protection Association; United States Salvage Association; the Society of Small Craft Designers; the United States Coast Guard; the National Association of Marine Surveyors and the United States Coast Guard Auxiliary. Several copies of each Listing Card are given to the submitter, who can obtain additional copies at cost.

Only commercially available products are eligible for a listing. Products may be submitted in their model stage for evaluation in relation to applicable safety requirements and reports made to the submitter for guidance. Such evaluations do not commit the Bureau to listings, which can only be determined when the products are in commercial form and are submitted for final examination and test.

Continuity of a Bureau listing is provided for by means of its periodic inspection service. This is directed only to confirming that originally tested qualities of listed and labeled products are maintained so long as the listing continues.

The Bureau's labels include the words "LISTED PRODUCT". They may be of any material adapted to the product, but are obtainable only from the Yacht Safety Bureau, Inc., and remain under its control. This condition is a contractual agreement included in the application for product evaluation.

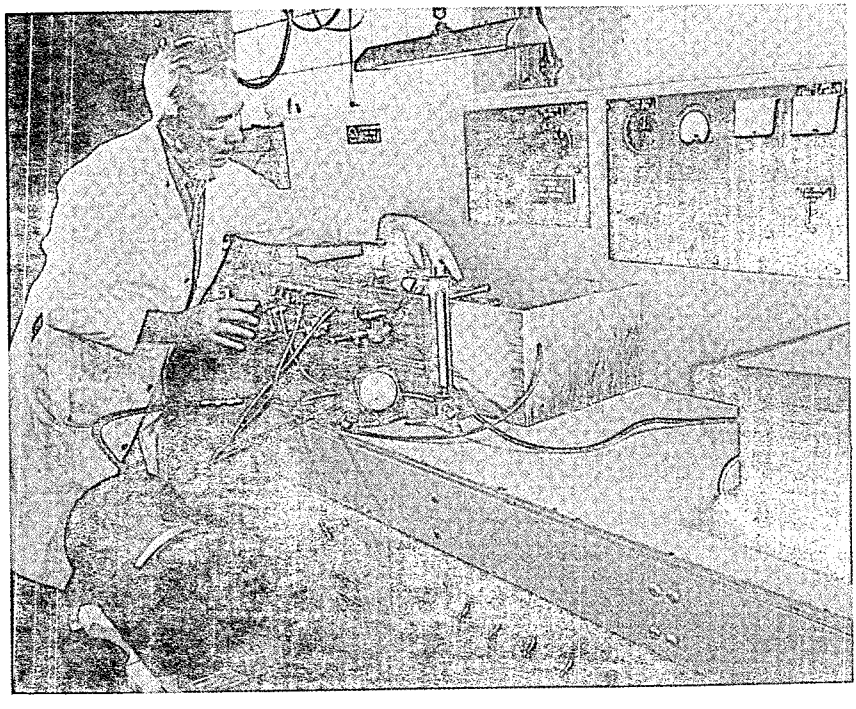
Costs Of Tests And Services

Bureau charges to manufacturers who make use of its services and facilities are principally of two kinds with both based upon actual work expended. One relates to all materials, staff time, travel, and any other element, including preparation of the report that enters into the cost of performing the work necessary for a complete product investigation. The other has to do with the inspection service. Both are thoroughly discussed with manufacturers and agreed upon at the time of arranging for tests.

Other charges have to do with labels, the Listing Cards, additional copies of test reports, etc. These are provided at the nominal cost of printing, plus the overhead of handling.

Acceptance Of Bureau Listings

The organization, purpose, and formal operating procedures of the Bureau have been so determined and defined as to warrant the greatest degree of acceptance of Bureau findings by all concerned, including governmental agencies, the boating industry, marine underwriters and the pleasure boating public. The Bureau, however, does not warrant or guarantee that its findings will be recognized or accepted in any individual case. Recognition or acceptance rests with the authority having jurisdiction.



Engine Fuel Pumps Being Set-Up for 500-Hour Operating Test in Heat Chamber

BOARD OF DIRECTORS

John Armstrong, Jr., Pennsylvania
William J. Bailey, Connecticut
R. C. Bolling, Connecticut
Arthur E. Brunck, New York
Joseph E. Choate, New York
W. R. Gherardi, New York
Thomas F. Hamill, Connecticut
Fred L. Hewitt, Jr., New York
W. R. Lichtenberger, Connecticut
A. W. MacKerer, Florida
Joseph D. McCarthy, Michigan
James R. McQueen, Pennsylvania
J. Ricker, New York
Dale E. Taylor, New York

OFFICERS

Dale E. Taylor, *President*
Joseph E. Choate, *First Vice-Pres.*
James R. McQueen, *Treasurer*
E. S. Terwilliger, *Executive Vice-President and General Manager*
Robert Loeser, *Secretary and Assistant General Manager*

OPERATIONS COMMITTEE

R. C. Bolling, *Chairman*
Francis L. LaQue
R/Adm. C. P. Murphy, USCG
Frank Nokes
Howard Saffer
G. Gilbert Wyland
William Zippler

AMERICAN BOAT AND YACHT COUNCIL, INC., NEW YORK, N.Y.

STANDARDS AND RECOMMENDED PRACTICES FOR SEWAGE TREATMENT DEVICES FOR MARINE TOILET WASTE, INCLUDING THEIR INSTALLATION

Project A–8

1. Scope

These recommended practices or standards apply to devices designed to treat human waste discharged through marine toilets for pollution abatment as may be required by appropriate regulatory agencies.

2. Definitions

The following terms are defined for purposes of this section:

a. *Most Probable Number (MPN).*—A statistical measure of the number of coliform organisms present and indicator of the degree of pollution from human sources.

b. *Detention Time.*—The time or period that the sewage is retained in the device.

c. Septic Action.—The biological decomposition of organic matter in the absence of air accompanied by the production of unpleasant odors.

(Note: A more precise and technical treatment of these definitions may be found in "Glossary Water and Sewage Control Engineering" prepared by Joint Committee representing American Public Health Association, American Society of Civil Engineers, American Water Works Associations, Federation of Sewage Works Associations.)

3. Effluent requirements

A sewage treatment for marine toilets should discharge an effluent meeting the following minimum standards:

a. Free of unsightly solids.

b. Meeting the minimum requirements of regulatory agencies, or containing a most probable number (MPN) of coliform bacteria not exceeding 240 per hundred millitiers (ML).

4. Pretreatment of solids

Prior to disinfection, solids shall be sufficiently divided into fine particles to permit the required degree of disinfection necessary to meet the minimum effluent standards set forth in Paragraph 3.

5. Disinfecting agent

The disinfecting agent shall meet the following conditions:

a. Be easily obtainable.

b. Constitute minimum hazard when handled or stored and form no dangerous gases.

c. Be sufficiently effective in relation to the detention time of the device to meet the effluent requirements set forth in Paragraph 3.

6. Materials

a. Materials used shall be such as to withstand the corrosion effects of the sewage, the disinfecting agent and the flush water.

b. Materials used should have chemical and/or galvanic compatibility.

7. Design and construction

The device shall:

a. Be of ample strength for safe operation.

b. Incorporate a detention chamber of size sufficient to produce an effluent which complies with the requirements set forth in Paragraph 3.

c. Be of the type which does not depend on septic action as part of its treatment.

d. Prevent the escape of dangerous gases or obnoxious odors to boat interiors.

e. Provide for ease of cleaning, ease of maintenance, and ease of replenishment of the disinfecting agent.

f. Function automatically with the operation of the marine toilets.

g. Not require too frequent replenishment of the disinfectant.

8. Installation

a. Installation of the device and its piping should allow ease of servicing and replenishment of the disinfecting agent.

b. The device shall be adequately secured independently of any connecting piping.

c. All piping shall be sufficiently strong and durable to withstand any pressure that might be imposed upon it by normal operation of the device.

d. Materials of the connecting piping shall meet the requirements of Paragraph 6.

e. Subject to the foregoing, it is recommended that:

(1) Boat designers and manufacturers, in planning toilet installations, provide a space of not less than 24 inches in length, 14 inches in width, and 17 inches in height for the installation of a device.

(2) Overall dimension of toilet and device should not exceed 4 feet and the length of hose connecting toilet to intake of device must not exceed 3 feet.

CONCLUSIONS AND RECOMMENDATIONS

Mr. CHOATE. I have spent time giving you this background because the NAEBM has serious concern over the passage of any new legislation that further expands the number of agencies, Federal or State, having the power to regulate recreational boating or which seems to depart from the regulatory approach set up in existing Federal boating laws. This concern leads us to suggest two possible courses of action.

1. We believe that there is a need to grant time to the independent organizations and the various State agencies mentioned to see if they can perform adequately to accomplish the objectives;

2. We believe that appropriate amendments to the 1958 Boating Act could resolve any administrative or enforcement problems to insure uniformity without the need for completely new legislation or the expenditure of extensive Federal funds on a new direction or approach. Gentlemen, we have the same goal—clean water—and we believe that the desire and the mechanisms to reach that solution, at least in the area of pleasure boats, are already in existence.

One of the chief problems concerned with water pollution today is the need for well-defined, carefully considered water quality standards that can be uniformly accepted. While we assume that such standards are being developed by Federal and State health agencies, we still do not know what water criteria we, the industry, will be expected to meet with antipollution devices.

In some quarters, there seems to be the belief that holding tanks might be the only acceptable device for small craft. The industry disputes that as unduly restrictive and as a real roadblock to continuing technological progress. It will also be expensive since a whole new system of shore facilities will be required.

It is reported that Ontario, Canada, made a survey of 282 marinas to find out how many were interested in establishing pumping facilities. Two marinas were willing to put in the equipment. Twenty marinas said they would allow discharge systems to be set up on their property providing the Province of Ontario paid for the installation and manned the facility. The remaining 220 marina operators stated they would not allow sewage handling equipment on their premises. That's why Ontario is now taking another look at their act.

Also, holding devices require considerable space aboard, so much so that boats under 19 or 20 feet in length would be hard put to find

room for such installation. Finally, long offshore trips, where pumping equipment is not available, could no longer be a part of the boat owners' pleasure. Gentlemen, don't put diapers on the sea gulls to solve a problem predominantly created by municipal and industry pollution in the waters of our country. It won't work.

The boating public, estimated at 40 million Americans, wants clean waters. This boating public also realizes that less than 5 percent of more than 8 million boats in use today have toilet facilities on board. They also know that in terms of pollution, that caused by recreational boats is quite insignificant, and no justification for the overkill approach reflected in legislation pending before the Congress.

NAEBM STATEMENT OF BASIC PRINCIPLES

Our association has so far taken no formal position regarding H.R. 13923. However, over a year ago our board of directors approved a statement of basic principles relating to waste disposal from small boats. That statement reads:

While recognizing that the pollution of waterways caused by recreational boats is minute in terms of the total water pollution problem, the NAEBM endorses efforts of the boating industry and Government agencies, Federal and State, to reduce such pollution as rapidly as technology and costs to boat owners will permit.

In this connection, the NAEBM supports the studies and efforts of NASBLA to arrive at uniform standards through a uniform State pollution control law.

After careful review of the entire problem, and with due regard to the interests of recreational boat owners, boat builders, and related segments of this industry. NAEBM recommends the following principles as fundamental guidelines in the formulation of public policy in this area:

(1) Waste disposal from small pleasure craft constitutes only a minor factor in the overall problem of water pollution and presents problems of control totally different from land-caused pollution or waste disposal from commercial vessels.

(2) Control of waste disposal devices for pleasure craft should be reasonably uniform on all waterways, coastal or interior, and should be sufficiently flexible to encourage continued technical improvement.

(3) In prescribing waste disposal devices for small pleasure craft, public authorities should give equal attention to potential hazards to boat users and to the general public. Appropriate safety measures are too frequenly overlooked in plans designed with the sole objective of reducing pollution.

(4) NAEBM believes that the best approach to feasible control of waste disposal is through the development of uniform Federal Standards in cooperation with State Boating Law Administrators and that administration and enforcement of such Standards should be accomplished in the same manner as now provided in the Federal Boating Act of 1958—the Bonner Act. NAEBM therefore urges consideration of appropriate amendments to the Bonner Act to accomplish these basic objectives with authority to be vested in the Department of Transportation to formulate appropriate standards in cooperation with other Federal and State agencies interested in pollution and safety measures for recreational craft. Such standards should be developed with the cooperation of independent, non-governmental organizations experienced in recreational boat safety problems.

On behalf of NAEBM I appreciate the invitation of your committee to appear here today. I regret that we cannot support H.R. 13923 as now written but I can assure you that experts within our industry and on the staff of our association will be available to assist the committee in developing legislation which in our judgment would be more consistent with existing boating laws and regulations and more effective in coping with the problem.

SUGGESTED AMENDMENT TO OIL POLLUTION BILL

I have one final comment on another bill before your committee, H.R. 15906. I understand a similar bill has already passed the Senate. You may be sure the boating industry will applaud all practicable programs to curb the discharge of oil into tidal or inland waters. This problem of oil dumping is not attributable to recreational boats, and we would urge a redefinition of the term "vessel" to exclude boats under 65 feet in length which are subject to the requirements of the Boating Act of 1940 or the Bonner Act of 1958.

I suggest this, not because small boats should be permitted to dump oil, but only because the language of these bills is so all-inclusive that discharge of ordinary bilge water, or exhaust smoke could constitute a "discharge of oil" and put the small boat owner in jeopardy of prosecution.

Thank you.

Mr. McCarthy. Thank you very much, Mr. Choate.

Mr. McEwen.

Mr. McEwen. Thank you, Mr. Choate, for a very fine statement.

Mr. McCarthy. Thank you very much for this very valuable contribution.

Mr. Choate. Thank you.

Mr. McCarthy. Our final witness is Mr. John J. Gunther of the U.S. Conference of Mayors.

Mr. Gunther, we appreciate your patience.

THE WATER QUALITY IMPROVEMENT ACT OF 1968

STATEMENT OF JOHN J. GUNTHER ON BEHALF OF THE NATIONAL LEAGUE OF CITIES AND THE U.S. CONFERENCE OF MAYORS

Mr. Gunther. Thank you, Mr. Chairman. I will be brief at the close of the day.

I am John J. Gunther. I appear here today on behalf of the National League of Cities and the U.S. Conference of Mayors.

SUPPORT STRONG WATER POLLUTION CONTROL PROGRAMS

The National League of Cities and the U.S. Conference of Mayors have strongly supported Federal efforts to aid local governments in the control and abatement of water pollution. We have consistently appeared before this and other Congressional committees urging stronger programs and standards for water pollution control even though we have recognized that these programs would impose increased costs upon municipalities.

NEED FOR FULL FUNDING OF FEDERAL COMMITMENT

Cleaning up our rivers and lakes will be very costly, but it must be done to provide sufficient water for homes and industry, for recreation and for a wide variety of other uses. An increase in present efforts is needed, and municipalities must bear a significant share of these greater efforts. The Secretary of the Interior has estimated that at

least $8.7 billion must be spent on municipal waste treatment facilities over the next 5 years. The magnitude of this task is demonstrated when it is recognized that the replacement cost of all existing municipal waste treatment facilities is estimated at $5.5 billion.

Federal aid and Federal standards under the present water pollution program have been a great stimulus to the construction of municipal waste treatment works, but if the program is to succeed the Federal commitment initiated by this committee and approved by Congress must be fully funded.

The limited revenue base of municipal Government is severely strained to meet many neeeds. Setting local priorities for use of available local resources is very difficult, and is made more difficult in this program where standards have been set assuming a degree of Federal support for local programs far above the level of actual appropriations.

If the Federal Government cannot meet its committed share of the program, the timetable for achievement of the standards set forth in the Clean Water Restoration Act of 1966 cannot be met by increased commitment of local resources, and the program must be reevaluated and its objectives must be reset in accordance with the willingness of the Federal Government to fulfill its commitment.

Federal aid was originally geared to small town projects, with the project ceiling $250,000. This ceiling was raised to $600,000 and more recently was eliminated, but the low level of the appropriations and the inherent political demand in such a program that many projects be supported, as reflected by State pollution control agency priority lists, has prevented concentration of Federal and State dollars on projects which would yield the greatest amount of pollution abatement per dollar of expenditure. As a result, Federal and State grants have in most instances paid for less than 10 percent of the programs in larger cities.

Federal and State governments should share in pollution control costs. Downstream water users benefit from a city's program and that city's water users in turn benefit from upstream programs. But there is no right to impose waste on downstream neighbors. It is only equitable that all beneficiaries share in the cost of pollution abatement. Federal and State aid is the only way that equitable sharing of costs is feasible. More States must help in financing these programs and some are moving in that direction.

The annual volume of local construction is governed by the level of State and Federal appropriations. If Federal and State grants in combination provide 50 to 75 percent of projects costs, a city simply cannot afford to proceed until these grant funds are actually available. Unless these appropriations are adequate, progress will be delayed.

CONTRACT PROPOSAL REQUIRES CLARIFICATION

The pending measure would authorize a Federal contract with municipalities to guarantee local bonds and to pay the normal Federal share of project costs, through reimbursement of interest and principal charges on part of the local bonds. The proposed legislation makes no definite commitment as to the extent of the Federal share of an eligible project. Conceivably, the demands in any one year could

control the amount which the Secretary could commit to a specific project. Presumably, the contract would specify a fixed percentage of the debt service to be paid each year during the term of the contract. Presumably, also, the same percentage of project cost now available as a grant would apply to the Federal payment of interest and principal costs on the bonds issued for a project. These points must be made certain, for if the bond issue requires voter approval, the exact amount of Federal participation must be known in advances of the actual vote.

TAXABLE BONDS

The proposal stipulates that bonds issued by a municipality under the new program must be taxable. The issue of the tax exempt status of municipal bonds is of vital concern to cities, and it must be considered independent of other issues. The National League of Cities and the U.S. Conference of Mayors are strongly opposed to any encroachment on the tax-exempt status of municipal bonds used for public purposes. The issue should not be raised as part of this program which is primarily aimed at controlling water pollution.

Further, making municipal bonds taxable would substantially raise the rate of interest. Corporate bonds with ratings similar to revenue bonds of a city now command net interest rates of 6½ to 7 percent. The city's revenue bonds of like quality command a rate of 4¾ to 5 percent. A Federal guarantee might lower this rate, but with the increasing Federal debt and annual deficit, there is some question that prevailing rates would be under the 6 percent statutory maximums of State laws and city charters.

INTEREST RATE SUBSIDY

The proposed legislation would allow the Department of Interior to underwrite a margin of difference between a tax exempt and a taxable security. This poses a real problem, as there are no tax-exempt securities of this type. The margin of difference to be paid to local Governments would be determined through negotiation with the Secretary of the Interior with no market test of the rates and no means to appeal the rates determined by the Secretary. The differences between the rate determined by the Secretary and the rate believed correct by the municipality might appear very small, but small differences in interest rates can make tremendous differences in the cost of large bond issues.

LEGAL PROBLEMS

This program has been put forth as one of limited duration, scheduled to expire when the present fiscal difficulties are ended and annual appropriation of the full amount authorized under the act is again possible. According to the pending measure, it will be a 3-year program, but it will take a significant part of these 3 years to revise State statutes and municipal charters to change interest rate limits and other bonding restrictions which may prevent many cities from participating in the program. A survey of the laws of the various States governing issuance of bonds show that many States have statutory interest rate limits at or near 6 percent and that in some States, issuance of the type of taxable, Federal participation bonds contemplated in the bill before you is of doubtful legality.

94-376 O—68——39

Many restrictions will apply to any project involving Federal aid, but this legislation carries the prospect of far greater Federal involvement than most Federal aid programs. Many actions requiring Federal approval could cause significant delay and higher project costs.

THREAT TO TAX-EXEMPT STATUS OF LOCAL BONDS SEEN

The National League of Cities and the U.S. Conference of Mayors would favor a plan whereby the Federal Government would agree to a definite basis for underwriting its share of the amortization costs of pollution control programs. However, we strongly oppose any measure which removes the tax-exempt status from municipal bonds. This loss would be a severe encroachment upon the tax-exempt standing for all municipal bonds. For at least 30 years, local government officials of necessity have united to oppose legislation seeking to remove the tax-exempt status of local bonds. If it is successful, the subject legislation would be an initial breakthrough with subsequent actions to include other types of local debts. This would place unbearable burdens on a municipality and no doubt lead to eventual Federal control of local financing.

If the proposed plan of financing has merit, it does not need to exclude tax-exempt status. The legislation would be equally effective if it permitted the bonds to be tax exempt. Federal costs would not be increased. Ability to issue bonds would not be changed.

We urge the proposed legislation be amended to stipulate that the tax-exempt status be retained for any municipal bonds to be issued.

PREFINANCING CUTOFF

If the full amount authorized under the Federal Water Pollution Control Act is made available for the program, we would not voice very strong objections to discontinuance of the provision permitting reimbursement for the State or local advancement of the Federal share of programs. If less than the full level of authorizations is made available, we would object strongly to elimination of the repayment provision, as it would further impair the ability of local governments to comply with the standards imposed under the Federal Water Pollution Control Act.

CONTRACT PROPOSAL ACCEPTABLE IF MODIFIED

We hope that a method can be found to increase Federal support for local waste treatment programs to the level authorized by the Clean Water Restoration Act of 1966. We believe that the program proposed by this legislation, with removal of the provision requiring that the bonds be taxable and clarification of the other points I have raised, would serve to increase the Federal commitment during this time of fiscal difficulties, and on that basis we accept it.

I thank you for your attention. I will try to answer any questions you may have.

I might add, Mr. Chairman, we have been working with the Department of the Interior and Bureau of the Budget and with the county officials and some members of your committee and some of your

council, over on the Senate side also, in trying to work out some of these very difficult problems.

Mr. McCarthy. Good. I am glad to hear that.

The points you make in conclusion there I think are very valuable. I am pleased to see that you are already in touch with the staffs of Members of both the House and the other body.

Mr. McEwen.

Mr. McEwen. Mr. Gunther, I appreciate your testimony. I know there are many that share the concern that you have expressed for the League of Cities and the Conference of Mayors and their inability to adequately fund the programs from the Federal level.

I would ask you this: Am I correct in assuming that the League of Cities and the Conference of Mayors are much in favor of the Federal grant program?

SUPPORT FEDERAL GRANT PROGRAM

Mr. Gunther. Yes. We have supported it every time there has been a hearing.

Mr. McEwen. And as far as this new proposal on interest payments is concerned, would I be correct in believing that you would not want to see that put in as a substitute for the grants?

Mr. Gunther. Absolutely not. We know in many, many instances because of State and local, but mostly State, legal limitations, they would not participate and it would take sometimes 2 or 3 years to amend the State constitution.

Mr. McEwen. You are speaking here if this were carried out under the present language, proposing to take away the tax-exempt status?

Mr. Gunther. That is correct.

Mr. McEwen. I think you made a very good point then. What has been proposed as a 3-year program, it might take a good part or all of the 3 years of this temporary program to get States and municipalities to change their legislation to provide a higher debt ceiling—interest ceiling?

Mr. Gunther. That is right.

Mr. McEwen. Thank you very much.

Mr. Gunther. Thank you.

Mr. McCarthy. Thank you, Mr. Gunther.

We have a statement here from our distinguished colleague from New York, Representative John G. Dow, and without objection will appear in the record at this point.

(The statement of the Honorable John G. Dow follows:)

STATEMENT OF CONGRESSMAN JOHN G. DOW OF NEW YORK SUBMITTED TO THE COMMITTEE ON PUBLIC WORKS, APRIL 25, 1968

LAKE POLLUTION CONTROL

Mr. Chairman, as a Congressman who has two bills before your Committee, H.R. 13241 and H.R. 13638, relating to Lake Pollution, I appreciate the opportunity to make a statement at your hearing on water pollution. I note that H.R. 15907 which has been introduced by Members of this Committee does incorporate in Section 6(b) the same concepts for prevention, removal and control of pollution in lakes as my H.R. 13638.

I have been particularly concerned with the problem of entrophication because of a lake in my District which has become unuseable for all practical purposes

due to the undesirable effects of nutrients and vegetation. New or improved methods which are encouraged by the legislation under consideration by this committee to prevent or control, or better yet, remove the alluvial growth found in some of our Nation's lakes would be of great benefit to our natural resources. To my knowledge, the specific problem of Lake Pollution has not been pinpointed in previous Clean Water Act, passed by Congress and I feel that this specific attention to a serious problem of water quality should be supported.

LATERAL SEWERS

I would like to further direct the Committee's attention to the present lack of compatibility between the Federal program for sewer mains and treatment plants, and for laterals. I feel that these programs are assigned to various departments in our government in such a way as to baffle coordination. I have done some work in this area in my efforts towards my bill before the Banking and Currency Committee, H.R. 3645, which would simply raise the amount of monies for water and lateral sewer projects. In comparing the programs of HUD, Interior, and Agriculture, I have found the terms and conditions at variance. The percentages of Federal participation differ, and the degree of state participation is widely separated.

In looking at H.R. 15907, Section 2(F)(5)(B), the language speaks of a comprehensive water quality control and abatement plan. Any plan which purports to improve water quality control, it seems to me, would necessarily include lateral sewers in addition to treatment works. To make this point in another way, any overall plan which would be useful in preventing lake pollution and the control of nutrients and effluent coming into a body of water, would also consider lateral sewers or their equivalent.

Mr. McCARTHY. The record will be kept open for 10 days for further statements.

(Statements of Mr. Franklin L. Orth and H. D. Doan follow:)

STATEMENT BY FRANKLIN L. ORTH, EXECUTIVE VICE PRESIDENT, NATIONAL RIFLE ASSOCIATION OF AMERICA

The National Rifle Association of America is highly pleased to receive the opportunity to submit this statement to the House Committee on Public Works in support of the "Oil and Hazardous Substance Pollution Control Act of 1968", H.R. 15906 and the "Water Quality Improvement Act of 1968", H.R. 15907, cosponsored by the distinguished Committee chairman and the distinguished chairman of the Sub-Committee on Rivers and Harbors, and S. 2760, an amendment to the Federal Water Pollution Control Act authorizing research and demonstration programs for the control of lake pollution, and acid and other mine water drainage and to prevent pollution of water by oil.

Mr. Chairman, the National Rifle Association, as the nation's largest sportsmen's organization, recognizes the great need today for preserving the quality of our environment, including land, air and water, in order to preserve a high standard of living and to further those recreational values that Americans hold so dear. And since water pollution, in its unlimited scope, has spread throughout virtually all of our major river systems and encompasses every state, we feel that this action on the federal level will be a necessary and major step forward in the massive pollution control tasks that lie ahead of use.

The control and removal of oil pollution and discharge of other foreign matter by vessels and shore installations provided for in H.R. 15906 and S. 2760 will be of great benefit to the nation's wildlife, especially fish and waterfowl, so dependent for life itself on a sanitary environment. We also applaud the federal leadership in encouraging, promoting and conducting studies on the effects, prevention and control of water pollution and the removal and treatment of pollutants that is provided for in H.R. 15907. Certainly the progress from this continuing research will strengthen our future attack on water pollution.

Again, Mr. Chairman, we would like to express our unequivocal support for these bills, H.R. 15906, H.R. 15907 and S. 2760. Recognizing that they are but a step forward in the monumental tasks of cleaning our fouled stream systems and as such will be of great public benefit through the restoration of excellence in the quality of our lands and waters, we feel that this proposed legislation ought to be made public policy and public law.

STATEMENT BY H. D. DOAN, PRESIDENT, THE DOW CHEMICAL CO.

The Dow Chemical Company is pleased to contribute its knowledge and experience to the hearings of the House Public Works Committee on H.R. 16044. As a commercial supplier to the municipal water pollution control market for some years now, Dow feels qualified to comment on the current situation and on the potential effects of this bill.

In the field of municipal water pollution control, there is a very real distinction between capital funds and operating funds. A city which sets out to build or expand a sewage treatment plant will get the necessary capital through bonds and Federal construction grants. Although Federal funds are not being appropriated at the most desirable rate, there is no question of their eventual availability. The city has only to apply and wait. In time, plants will be built, and pollution will be reduced.

The operation of most municipal plants, however, reflects a very different situation. Municipal governments, along with other governmental units, have limited funds which must be disbursed in answer to a multitude of pressures, many with higher priorities than water pollution control. But more importantly, there is little incentive to spend money on the operation of treatment plants.

Almost all municipal treatment plants are run as cheaply as possible. This stems from a lack of standards by which to measure operating efficiency and from the fact that there is no real reward for producing a cleaner effluent. As businessmen, we can conclude that clean water, as it comes from a treatment plant, has no economic value.

Dow has, for example, demonstrated the concept of raw waste flocculation using chemicals in over 50 cities throughout the U.S. In over 90% of these demonstrations, the operation of the plant was significantly improved and the quality of the effluent was raised. Despite its merits, raw waste flocculation has been adopted by only three cities. Chemicals for raw waste flocculation must be purchased with operating funds. Our products which are purchased with capital funds are being accepted on their own merits.

The bill which is before your Committee now, H.R. 16044, would be a step in putting a value on cleaner water.

The bill provides $25 million a year for operating money, for ". . . proven new methods to achieve substantial immediate improvement of effluent quality, including phosphate removal".

Whatever is purchased with this money will have to meet the criteria of immediacy and newness. Included could be flocculating chemicals, both organic and inorganic, activated carbon for advanced treatment, and so on. It should go without saying that only workable items will be purchased.

Because most of Dow's experience is with polyelectrolytes, or polymers, and because they are the most universally applicable, they will be the subject of the majority of this statement. Bare in mind that they are being used primarily as an example of what can be done.

Polymers are high molecular weight, water soluble, organic compounds. They are used as controlled flocculants to aid in solids-liquid separation. They have, for many years, been incorporated into the manufacture of paper, the mining and processing of ore, the refining of sugar, and the treatment of drinking water.

New uses for polymers are being investigated. Under a two-year contract with the Federal Water Pollution Control Administration, Dow is testing their value in the treatment of combined sewer overflow. A cooperative project between Dow and the Maryland-National Capital Parks and Planning Commission has resulted in a permanent polymer treatment station just above Lake Needwood in the Washington, D.C., area to remove silt from a stream. We believe our silt removal concept could be expanded into the treatment of whole rivers. We are testing erosion control chemicals by which silt may be kept out of streams. Polymers are even showing promise as an effective fog dispersant at airports.

Polymer treatment of municipal sewage could begin tomorrow in most existing treatment plants, with negligible capital cost.

Polymers are controlled flocculants, generally used in the primary portion of a treatment plant where the wastewater is held quiescent to alow solids to settle out for collection and disposal. These long-chain molecules attract and hold suspended solids, causing more to settle out faster. Polymers can be expected to increase solids capture by about 50%, depending on the chemistry of the waste, the design of the plant, and the quantity of wastewater that the plant is required to treat.

Polymers are also effective in secondary plants, i.e., plants in which primary treatment is followed by biological removal of dissolved organic pollutants. Enhanced solids capture in the primary portion means that the secondary portion is required to treat less of a load and is therefore able to do a better job on what is delivered to it. Polymer treatment can be expected to improve the final effluent of a secondary treatment plant by about 20–40%, again depending on the waste chemistry, plant design, and wastewater volume.

Beyond an improved effluent, polymers have demonstrated improved operation of sludge digestors, a clearer supernatant from the digestors, increased fuel gas production, and improved incineration of sludge. Because the BOD load to the secondary portion of a plant is reduced, blowers may be shut down for power savings or more dissolved oxygen can be maintained in the mixed liquor. Many plants report improved pumpability of sludge. Less chlorine is necessary for disinfection, and, in fact, better disinfection has been noted.

Chemical treatment, though, is not a substitute for full secondary treatment. Probably the most useful role for polymer treatment today is to increase the efficiency of overloaded and obsolete primary and secondary treatment plants until such time as new facilities can be designed, financed, and built.

For example——

In a Midwestern activated sludge plant with an average flow of 60 million gallons of wastewater a day (MGD), polymer treatment raised the removal of suspended solids from the wastewater to 69.5% from 39.8%. In this case, that's an *extra* 73,000 lbs. of solids removed each day.

At a chemical precipitation plant with an average flow of 50 MGD, polymers boosted the solids removal to 65% from 62% and boosted biochemical oxygen demand (BOD) removal to 58% from 38%.

At a primary plant with a flow of 150 MGD, suspended solids removal went to 74% from 61% when ploymers were used. That's an *additional* 43,500 lbs. each day. BOD removal was raised to 50% from 42%.

At a small trickling filter plant with an average flow of 2 MGD, polymers raised the suspended solids removal to 61% from 27%. BOD removal went to 65% from 40%.

Specific examples of the potential of chemical treatment are difficult to translate into nationwide values. It appears, though, that the use of polymers could improve the effluent from existing treatment plants by an over-all average of 35–40% at a cost of $3–7 per million gallons.

From the information available to us, it is likely that $25 million is enough. A great many treatment plants would be able to use polymers tomorrow. The $25 million will surely take care of that. Some plants will need to enlarge their sludge handling facilities to take care of the increased solids captured before they can make appropriate use of chemical treatment. By that time, we should know precisely how much money is needed. If $25 million is not enough, it isn't far off the mark.

The occasional need for additional sludge handling capacity, when compared with the previous claim that little capital expense is needed, is the one seemingly paradoxical aspect of chemical treatment. While it can be interpreted as a contradiction, that interpretation would be wrong.

Chemical treatment should be considered as a significant step to be taken while waiting for adequate secondary facilities. The sludge handling facilities would have to be constructed in any case. The situation would be right for the effective use of staged construction. For example, a totally inadequate plant could construct the sludge handling facilities that it would eventually need. Once these are completed, chemical treatment could begin while construction of the rest of the plant gets underway, a process that could take upwards of four or five years depending upon the size. And, as we understand them, recent proposals on "staged financing" would fit this situation very well.

Neither will the passage and implementation of the bill interfere with progress towards full secondary treatment. While it's possible that a city might try to postpone construction plans by saying that chemical treatment does just as good a job, that response does not have to be accepted.

It could also be argued that chemical treatment gives a plant the alternative of turning off the chemicals. We don't think this will happen because no money would be saved: the chemicals would be purchased with the Federal operating grant.

The in-use characteristics of chemical treatment are also advantageous.

It is perhaps the simplest innovation available to a treatment plant. It demands minimal operator skills, and significant benefits can be realized with no additional instrumentation. This is not to say, of course, that instrumentation wouldn't enhance the potential success of chemical treatment.

The dosage rate for polymers is on the order of one or two parts per million. At that concentration, they have no effect on aquatic life. Moreover, because the polymers are settled and collected with the solids, there is probably no measurable amount in the effluent. Even if a plant were to be overdosed, the polymers would still be tied to the solids and removed.

An additional benefit of polymer treatment is that it can be extended to include phosphate removal. A plant that is using polymers for raw waste flocculation already has half of a consistent and dependable phosphate removal system. All that is needed is the addition of metal salts ahead of the polymer. The added cost of phosphate removal would be $10–40, depending upon the specific metal salt and the transportation charges.

In view of the fact that the massive amounts of construction funds that are required are being diverted to higher priority needs, the benefits that could be gained by appropriating operating funds look very good indeed. This approach not only merits support, but may actually be a necessity if we are to protect our water resources until such time as new facilities can be designed and constructed.

Mr. McCarthy. Now, unless there is more business, these hearings stand adjourned until further call of the Chair.

(Whereupon, at 4:45 p.m., the hearing was adjourned, subject to the call of the Chair.)

STATEMENT OF REPRESENTATIVE WILLIAM H. BATES OF MASSACHUSETTS

Mr. Chairman, I am grateful for this opportunity to record my support for the legislation before your Committee to strengthen the control of oil and vessel pollution of both our coasts and lakes.

It was my privilege to join Congressman Keith of my home state of Massachusetts in introducing H.R. 16559, which is similar to the Administration bill, H.R. 15906. While I wish to endorse H.R. 15906, the "Oil and Hazardous Substance Pollution Control Act, as sorely needed legislation. I hope that favorable consideration will also be given to the two amendments to the Committee's bill which are included in H.R. 16559.

Before amplifying my views on this legislation, I would like to recall the fact that when we enacted the "Clean Waters Restoration Act of 1966," we felt a big step had been taken toward combatting water pollution. However, that Act became effective on December 3, 1966, and, by coincidence, there was an alarming oil spill by a tanker one day later in the harbor of my home city of Salem, Massachusetts. The resulting investigation revealed the short-comings which had unfortunately been written into that Act so far as enforcement of the Oil Pollution Act amendments therein were concerned. Since then, therefore, I have sponsored and supported the various legislative efforts to remedy that situation.

The bills here concerned, H.R. 15906 and H.R. 16559, seek to amend and strengthen further the Federal Water Pollution Control Act so as to provide for the control of oil discharged into the waters of our navigable streams and the contiguous zone of the United States, "if such oil may pollute or contribute to the pollution of the waters of the territory or the territorial sea of the United States." These bills also provide for "removal of discharged matter" from the navigable waters of the United States, the contiguous zone, and (in the case of H.R. 16559) the high seas.

The Committee bill includes needed stiffer penalties against oil dumping by vessels off our coasts, sets up new government machinery for cleaning up oil in pollution emergencies, and contains a requirement that the pollutor pay the full cost of the clean-up. However, I do not believe it goes far enough when it limitslimits government clean-up action to oil spills within the 12-mile limit. You will note that H.R. 16559 proposes to include portions of the high seas outside that limit.

A large scale oil spill of the proportions of the *"Torrey Canyon"* or the more recent *"Ocean Eagle"* accident in Puerto Rico could, if it occurred beyond 12 miles from the coast, be disastrous to our vital American fisheries resources of Georges

Bank. I hope, therefore, that you will give the Secretary of the Interior the authority to cope with oil spills outside the contiguous zone, as provided in H.R. 16559.

Further, I believe that H.R. 15906 is too vague in regard to how and when the Secretary should delegate the clean-up responsibility to the agencies which will have to carry out that responsibility. The amendment proposed on the bill which I have sponsored, H.R. 16559, would require the Secretary to make immediate advance arrangements for the assigning of this responsibility. Thereby, when an emergency arises, the machinery would be ready to work, with all agencies knowing exactly what they must do rather than improvise to meet a contingency.

In the scant space of less than two years, Mr. Chairman, the need for a truly effective oil pollution control law has become unmistakably clear. I hope, therefore, that H.R. 15906 will be favorably reported by your Committee and promptly enacted by the Congress. I also again respectfully urge that it contain the two amendments to which I have referred, as included in H.R. 16559.

FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS—1968

THURSDAY, MAY 2, 1968

HOUSE OF REPRESENTATIVES,
COMMITTEE ON PUBLIC WORKS,
Washington, D.C.

The committee met, pursuant to recess, at 10:12 a.m., in room 2167, Rayburn Building, the Honorable John A. Blatnik presiding.

Mr. BLATNIK. The Committee on Public Works will please come to order.

Last week we had very lengthy hearings on H.R. 15906, by Mr. Fallon, and sundry bills on several major aspects of the water pollution program. We are today having a followup hearing on the proposed amendment, additions, or modifications of the Water Pollution Control Act.

At this time we again have before us Secretary Udall; Commissioner Moore, Commissioner, Federal Water Pollution Control Administration; Mr. Finnegan, assistant legislative counsel; Mr. Edwards, Assistant Secretary for Water Pollution Control; and Mr. Hughes and Mr. Alm of the Budget Bureau.

So, Mr. Secretary and Mr. Moore, Mr. Edwards, and your associates, Mr. Hughes, we appreciate that you returned this morning.

Are there any further statements you have in mind or shall we proceed with the questions?

STATEMENT OF HON. STEWART L. UDALL, SECRETARY OF THE INTERIOR; ACCOMPANIED BY HON. MAX N. EDWARDS, ASSISTANT SECRETARY OF THE INTERIOR FOR WATER POLLUTION CONTROL; HON. JOE G. MOORE, JR., COMMISSIONER, FEDERAL WATER POLLUTION CONTROL ADMINISTRATION, DEPARTMENT OF THE INTERIOR; S. PHILIP HUGHES, DEPUTY DIRECTOR, BUREAU OF THE BUDGET; ALVIN L. ALM, BUREAU OF THE BUDGET; AND DAVID FINNEGAN, ASSISTANT LEGISLATIVE COUNSEL, DEPARTMENT OF THE INTERIOR

Secretary UDALL. I believe we have finished all our prepared statements and we are just here to answer questions, just to take any questions that you might have.

Mr. BLATNIK. Mr. Kluczynski.

JOINT MUNICIPAL-INDUSTRIAL WASTE TREATMENT

Mr. KLUCZYNSKI. I would like to ask a question of the Secretary.

Mr. BLATNIK. Mr. Kluczynski.

Mr. KLUCZYNSKI. Mr. Secretary, I would like very much to have your impression on how the joint municipal program is working out. I understand there are several examples of excellent cooperation underway between municipalities and industry. Could you elaborate on that, Mr. Secretary?

Secretary UDALL. Well, just giving you a general look at the national picture, Congressman, I would say that your impression is correct. I think industry and municipalities, where they sit down to study the economics, do find there are economic advantages to both of them, instead of building separate plants, to build larger plants together. As a general rule—of course, this applies to any economic activity across the board—if you can move to something of large scale, you get definite economic benefits. And here is an example where industry can share in them, and we find that in many parts of the country, this is taking place.

I think it is a very good thing. We think these combined plants are much better from several points of view, and I would say that we are very pleased with the progress we are making on that.

Mr. KLUCZYNSKI. Thank you. I am very happy about that.

Thank you, Mr. Chairman.

STANDARD METROPOLITAN STATISTICAL AREAS

Mr. EDMONDSON. Mr. Chairman.

Mr. BLATNIK. Mr. Edmondson.

Mr. EDMONDSON. I did not have a question, but there has been supplied to me since the last meeting a list of the metropolitan statistical districts for the country, and I would like to ask permission that they be made a part of the report, Mr. Chairman.

I would like to see that it is available at the time this bill is reported, so that Members dealing with this bill, when it gets to the floor are acquainted with what that list is. I do think it is rather important that it be made available to the membershp of the House when this bill goes to the floor.

Mr. BLATNIK. Yes. The standard metropolitan statistical areas as defined by the U.S. Bureau of Budget through March 1967 will be available with the hearings.

Mr. EDMONDSON. Thank you.

Mr. BLATNIK. It will be very, very helpful. Very properly so.

Mr. Cramer.

PERMITS FOR USE OF FEDERAL PROPERTY IN THE DISTRICT OF COLUMBIA

Mr. CRAMER. Mr. Secretary, I have a few questions. There are a number of technical matters that probably our staff can work out with your staff in some way.

With permission of the chairman, I would like to ask you a question about another matter. I read in this morning's paper that you had a

confrontation yesterday—this is a much cooler one I hope—in which the paper this morning says:

> Udall told a reporter after the meeting that no decision has been reached regarding the campaign demonstrators' use of Federal parkland here as a campsite.

Many members, myself included, have introduced or are introducing legislation which clearly, I think, states the intent of Congress that Federal property in the District of Columbia should not be used for the purpose of overnight camping, building structures, shanty towns, or anything else.

In the experience we have had relating to problems concerning demonstrations in the District, it seems to me clearly within your present prerogative and the present statute not to give a permit where it appears that any possibility, reasonable possibility, that problems can result.

Has any decision been made in regard to that yet?

Secretary UDALL. Well, Congressman, there has not been any specific plan presented. There has been no decision made. I am not personally going to make that decision, I do not think. There is a committee of the various agencies of Government that are interested that is working on this matter on a day-to-day basis, and certainly it is a problem that we are going to have to approach very carefully.

We are aware of the views of various Members of Congress on this subject, and we are going to have to make a decision in light of what actually occurs.

Mr. CRAMER. After it occurs it is going to be too late. The permit will have been issued. That is the problem.

It seems to me it can be clearly foreseen, in view of what has happened in the past alone, and in view of the substantial numbers of people that appear to be involved, according to published analyses, that it would be extremely risky to have substantial numbers of people building shanty towns anywhere on public property in the District of Columbia.

The statute clearly gives you authority as Secretary to deny such permits if it appears that problems might arise.

I would like to importune you, as Secretary, not to issue such permit.

I would like to discuss it with you otherwise, but this is the only opportunity I will probably have to do so.

Mr. BLATNIK. The gentleman has a right to raise that personally or it will be a matter before this committee. At this moment we are here for a different purpose and this issue is before the Public Buildings and Public Grounds Subcommittee, so the question is a valid one but not at this time. Will the gentleman confine himself to discussion or interrogation on the proposals to amend the Federal Water Pollution Control Act?

The Chair recognizes the gentleman from Florida.

Mr. CRAMER. I might suggest, Mr. Chairman, I presume we will take it up with the chairman of the full committee and the chairman of the Public Buildings and Grounds, which I understand is meeting next week. But I would like to say to the Secretary that I would hope that neither you nor anyone else would issue permits until those hearings can take place next week.

I understand we are meeting on Tuesday, are we not?

I would like to suggest that as a first order of business, the bill referred to that subcommittee, and that no permit be issued until this actually is heard. I make that request of you as Secretary at this point.

Secretary UDALL. Congressman, I am not in position to make a commitment to you, because I am not the sole person to make the decision. There are other agencies involved, committees handling the matter.

I spent an hour and a half last week before Senator McClellan's committee discussing this matter. This is the special subcommittee on the urban situation.

I certainly say to you that we are aware of all the grave implications.

We have not issued a permit to anyone at this point, and I am aware of the sensitivity of this subject, and I am aware of the responsibility we have to the people of the country with regard to the use of the parklands that belong to the Nation. And so we are certainly not going to be making any quick snap judgments, I can assure you of that.

Mr. CRAMER. Well, I trust, Mr. Secretary, that no objection will be taken until we hold these hearings, starting hopefully, next Tuesday.

Secretary UDALL. If the committee is holding hearings next week, I think it is quite likely that this does not present any problem, holding it up until then.

THE OIL AND HAZARDOUS SUBSTANCE POLLUTION CONTROL ACT OF 1968

Mr. CRAMER. Thank you very much.

I would like to discuss briefly some of the questions that have been raised by the witnesses, and what have you, in the first instance relating to the oil pollution control bill 15906.

BURDEN OF PROOF

The first is that it appears in the criminal section and, as some of the witnesses have testified, that the burden of proof appears to have been shifted to the shipowner to prove affirmatively that the damage or oil discharge was caused without his fault in a criminal case. Now, has any consideration been given to that problem?

Normally a person is presumed innocent until proven guilty. The burden is on the Government. This seems to shift the burden.

Secretary UDALL. This is a technical legal question. I would like to ask Mr. Finnegan to answer.

Mr. FINNEGAN. Mr. Cramer, the bill does provide a scheme of absolute liability whereby the burden of proof is shifted to the shipowner, the vessel owner, or owner-operator, in the case of cleanup; that is, the removal of the oil.

Mr. CRAMER. I am talking about criminal liability.

Mr. FINNEGAN. No, sir; the criminal provisions require that there be a willful discharge on the part of the owner-operator, and the burden of proof would be on the Government to prove that there is a willful discharge.

Mr. CRAMER. Let's get the civil question, then we will get back to the criminal in just a moment.

On page 3 of the bill, subsection (b)—section 20(b), line 23: "it is clear the liability on the part of the known person or shipowner, it is his responsibility to prove that it was either in order to avoid an accident, talking not about civil, that if it is an emergency"——

Mr. FINNEGAN. That is correct, sir.

Mr. CRAMER. If it is an emergency, unavoidable accident, collision, or stranding. Is that correct?

Mr. FINNEGAN. Or except as otherwise permitted by regulations.

Mr. CRAMER. Well, all right. Maybe we should ask what kind of regulations are you contemplating there?

Mr. FINNEGAN. I cannot say what we would be contemplating as regulations, but it is possible that in a particular area, particularly in a contiguous zone, that some discharges might have to be permitted in the normal operation of the vessel. We discussed this with the Coast Guard and Department of Transportation.

Mr. CRAMER. Well, it is true, however, that the party involved has to prove one of those factors or circumstances in order to prevent liability, right?

Mr. FINNEGAN. For civil liability for violations.

Mr. CRAMER. For civil liability?

Mr. FINNEGAN. That is correct. That is his defense.

Mr. CRAMER. I understand that.

Now, there is no definition in this legislation for "emergency," is there?

Mr. FINNEGAN. No, sir; there is none.

Mr. CRAMER. Or an "unavoidable accident"? That has to be an emergency imperiling life or property?

Mr. FINNEGAN. That is correct. This same language is in the present 1924 act.

Mr. CRAMER. Unavoidable accident, collision, or stranded?

Mr. FINNEGAN. That is correct.

Mr. CRAMER. Do you think it might serve the purpose if you have regulations indicating what that means?

Mr. FINNEGAN. We do not have any regulations at this time. It certainly wouldn't hurt to explain it, define it in the bill if it is possible.

AMELIORATION OF EFFECTS OF DISCHARGED MATTER

Mr. CRAMER. Page 8, relating to removal of discharged matter from the navigable waters of the United States and the contiguous zone, lines 17 and 18, this is if the damage occurs and the owner does not clean it up:

If such owner or operator fails to so act—

As the Secretary directs him to act, is that correct?

Mr. FINNEGAN. That is correct.

Mr. CRAMER (continuing).

The Secretary may ameliorate the effects of such discharged matter, and such owner or operator, and, as appropriate, the vessel and shore installation shall be liable, notwithstanding any other provision of law, to the United States for the full amount of the actual costs incurred by the United States under this subsection: *Provided*, That there shall be no such liability where such discharge was due to an act of God—

And so forth.

Now, "ameliorate" is a word which, as it relates to legislation and civil and criminal liability, civil in this instance, is a new word to me.

Mr. FINNEGAN. There is no civil or criminal liability in regard to this section of the act, sir. The civil and criminal liability refers only to oil discharges, not to the removal of other matter other than oil.

Mr. CRAMER. Well, in this instance the owner or operator, if he does not ameliorate the situation, the Secretary can do so and he is charged for it?

Mr. FINNEGAN. He can recover the cost that the United States incurs.

Mr. CRAMER. That is a civil liability.

Mr. FINNEGAN. All right. But not in the context of what we were talking about a few minutes ago.

Mr. CRAMER. I understand that. We are shifting to another subject. All right?

Mr. FINNEGAN. All right, sir.

Mr. CRAMER. What does "ameliorate" mean? And it is up to the discussion of the Secretary as to how it is going to be ameliorated. What does it mean?

Mr. FINNEGAN. It is such measures as may be necessary to clean up the matter that has been discharged into the waters.

Mr. CRAMER. How about the beaches?

Mr. FINNEGAN. And adjoining shorelines.

Mr. CRAMER. How about the businesses that suffer loss of business?

Mr. FINNEGAN. I do not understand your question, Congressman.

Mr. CRAMER. As a result of the beach area being inundated with oil, certain businesses on the beach suffer.

Mr. FINNEGAN. We are not talking about oil here. We are not talking about oil in this section.

Mr. CRAMER. Ameliorate the effects——

Mr. FINNEGAN. Discharge of matters other than oil in this case.

Mr. CRAMER. All right. Take other hazardous matter that chases people off beaches.

Mr. FINNEGAN. We would take whatever steps were necessary to clean up the beaches if that is appropriate.

Mr. CRAMER. Do you not think you could get a better word than "ameliorate"? That means all of it, part of it, or any of it?

Mr. FINNEGAN. I expect we could come up with a better word, yes.

UNLIMITED LIABILITY

Mr. CRAMER. Another question that was raised was relating to absolute and complete civil liability for the removal of the oil.

There has been testimony and I think it has been unanimous, as I remember, Mr. Chairman, that all of the present insurers and prospective insurers, and company insurers, such as Lloyds of London, have testified that with no limitation of liability, this is not an insurable risk.

Mr. FINNEGAN. I read that testimony, sir. I would make the comment that I suspect that they could get some insurance; maybe not for the entire amount, but some dollar amount, but I cannot be positive about that.

Mr. CRAMER. Well, they have suggested, for instance, a limitation of $10 to $15 million perhaps. Would that be adequate if written into the legislation, to generally cover the problem?

Mr. FINNEGAN. I would say, their suggestion was constructive and that we ought to look into it to see whether that would be appropriate in the handling of this legislation.

LIABILITY WITHOUT FAULT

Mr. CRAMER. Now, they also indicated there is difficulty in insuring where there is not required fault of any kind.

Mr. FINNEGAN. Yes.

Mr. CRAMER. That, too, would apparently prevent the insurance as it relates at least to that aspect of it.

Mr. FINNEGAN. Yes; I understand it does.

Mr. CRAMER. So, in effect, you are proposing relief against the vessel operator or the person in charge of the vessel, the person responsible, in excess of admittedly what they could be insured for; is that correct?

Mr. FINNEGAN. That is correct.

Mr. CRAMER. Now, that basically is contrary, is it not, to the concept the Federal Government has had in the past as it relates to encouraging the maritime industry, and thus setting limitations generally on all other matters?

I am asking a policy question.

DEVESTATING EFFECTS OF OIL DISCHARGES AND INDUSTRY'S RESPONSIBILITY

Secretary UDALL. Congressman, let me discuss this, because this may represent to a degree a difference or a change in policy. But I do not think it is difficult really with regard to the types of liability that businesses face generally in this country in the conduct of major activities that can have an impact, a devastating impact, on man's environment.

With most of the big companies today, there are many activities where they act as self-insurers. They take certain risks themselves that are not insurable, and this is necessary because of the nature of things.

I cannot see that this imposes any severe hardship on the maritime industry that is not being undertaken by the people who do other transporting, other types of transporting on land.

It was rather interesting to me, the other day, on a list of the wealthy people of the Nation, to see some shipping magnates on the list. This has not been an industry that has suffered or will suffer, in my judgment, because the transporting of oil and other materials is a highly profitable business, one of the most profitable in this country.

Mr. CRAMER. The testimony we heard, Mr. Secretary, was that a lot of these small operators would be hurt, put out of business, if they were caught up in a nonfault oil discharge situation without a chance to insure against that liability.

Secretary UDALL. Well the damage can be so severe to absolutely vital resources, to people, to businesses that are conducted in areas.

The Congressman, being from the State of Florida, knows how vital the beaches, for example, are to whole communities. You can have a community wiped out. And for my part, I would rather have us be rather strict and simply put people on notice that they are going to have to conduct their affairs with great care and do this, rather than let industry carry on their business with the feeling that they can get away with anything.

The thing that really struck me very forcibly in both the *Ocean Eagle* and *Torrey Canyon* cases is that there was really an incredible lack of judgment in terms of managing ships, because there were serious pilot errors in both cases that were rather ridiculous when you get right down to it, in my judgment, considering the type of equipment that can be put on a ship today.

REMEDY IN CASE OF UNKNOWN CULPRIT

Mr. CRAMER. I also understand in the case of where you do not have an identified ship involved, there is no remedy offered for such as happened off Hawaii and happened off other places recently; there is no remedy offered in that situation; right?

Secretary UDALL. You mean remedy in terms of public protection?

Mr. CRAMER. Public protection or Federal Government protection.

Secretary UDALL. I think the only remedy we have there is that presumably local governments, State governments, or the Federal Government, if there is Federal involvement, would take action.

We have many of these situations. I would say today, in 95 percent of the cases with these discharges, the reports that come to my desk, we never find out who was responsible.

It is a moving industry. It is like throwing a beer can out of a passing car window; you never find out who was guilty. And you are quite right, there are a lot of these situations where the resort owners, where the communities that have beaches despoiled, where the burden falls on them; they get damaged. And maybe we need to have a systematic program of protecting our waters.

I do not know that the Federal Government should do the whole job, however.

Mr. CRAMER. Well, in other words, I think it should be clear on the record that this legislation does not cover every oil discharge or dangerous material discharge situation, only where the perpetrator is known.

Secretary UDALL. This is a gap, that is correct.

Mr. CRAMER. And the Federal Government is not expected, we do not propose they accept responsibility such as that which recently happened in Hawaii, or what have you. If you do not know who is the perpetrator, then there is no relief and the Government is not accepting, out of the revolving funds or otherwise, responsibility for that situation; is that correct?

Secretary UDALL. Well, I think you put your finger on a gap here that maybe the committee would want to look at as to who is responsible for cleanup.

At the present time, when these things occur, it is usually a quick ad hoc situation, and sometimes the State acts, sometimes the Coast

Guard acts, sometimes others act. And we obviously need, and we are trying to develop now, a much more systematic orderly way, so we know who does what when one of these spills occurs.

REMEDY AGAINST A SUNKEN SHIP INEFFECTIVE

Mr. CRAMER. Do you have at the present time, which I think is important as a result of the experience that was acquired off Puerto Rico and what have you—of course, we knew the perpetrator there. Remedy against the ship, however, would not be of much value, would it? It was sunk. That remedy is not necessarily too effective either, is it?

Secretary UDALL. In many cases it is not.

Mr. CRAMER. Liability does not run beyond that of the value of the vessels, is that right?

Secretary UDALL. That is right.

Mr. CRAMER. So if the ship is sunk and discharges the oil in sinking, there is no remedy, that is no effective remedy?

Secretary UDALL. Well, there may be a remedy against the owner of the cargo or the owner of the vessel who, you know, might have and usually does have other interests.

Mr. CRAMER. Well, I would suggest, Mr. Secretary—perhaps legal counsel should clarify it—in legislation as drafted, the only remedy is against the ship itself which was sunk. That is not much remedy.

Secretary UDALL. It would not be.

I think our staff people ought to look at this in terms of strengthening it.

Mr. CRAMER. We have had some pretty serious problems off Puerto Rico, and other places trying to find what can be done to dispel this oil, disperse it, so it is no longer a threat to the beach, cleaning up of the beach, et cetera.

This is a long-range problem for those communities, is it not? It has very serious impact. It is almost like a major disaster?

Secretary UDALL. I quite agree and it is a poised threat that is there all the time and it is going to get bigger, not smaller.

SUNKEN VESSELS

Mr. CRAMER. We also have eight or 10 sunken ships, sunk during World War II, off the coast of the State of Florida, which at any time, if they have oil in them, could possibly start a discharge. This bill, of course, offers no remedy in that situation.

But what I am getting at is do you have underway or do you think it is necessary to include in legislation to do the job a specific program of research demonstrations to determine what could be done, properly financed, so that if the Federal Government does not have the responsibility, not accepting it here in many instances, that there is some assistance, technically, by the Coast Guard and what have you, to assist in these problems?

Secretary UDALL. I would like Commissioner Moore to comment on this.

Mr. MOORE. Congressman, with regard to the oil that might be in vessels that have been sunk for a long time or escaped from vessels,

I think we need to remember that oil is biodegradable. It takes a while, but it can be attacked by small organisms and in the passage of time, be disposed of, eaten up.

This is true even where you have an oil spill off the coast of, for example, San Juan. Sometimes the use of substances to break the oil into smaller particles accelerates this process.

There is a danger in using some of these things, because these chemical substances may also be toxic to sea life of various kinds and sometimes they could even have damaging effects upon the shoreline. But I think we need to remember that oil is biodegradable.

Now, in the research and development program of the Federal Water Pollution Control Administration, we are proceeding to tackle the technological problems and the research problems that go with the questions of either breaking down the oil more rapidly or methods or means to contain it and dispose of it.

RESEARCH AND DEMONSTRATION AUTHORITY

Mr. CRAMER. Well, Mr. Secretary, I appreciate what is being done and the efforts being made, but do you think it will serve the purpose to specifically set out in your legislation by adequate research, pilot plants, or demonstration projects, an approach to this problem, giving the Federal Government funds to do it in cooperation with the local communities?

Mr. MOORE. Congressman, this is covered in the debt financing bill, also before this committee. There is adequate authorization for research and development in this area.

Mr. CRAMER. In this specific area?

Mr. MOORE. That is correct.

Mr. CRAMER. You do not then feel it is essential? You think it is essential to do so?

Secretary UDALL. Yes.

Mr. MOORE. Yes, that is correct.

TAXABLE STATUS OF BONDS UNDER DEBT FINANCING PROPOSAL

Mr. CRAMER. Now, we have had a lot of testimony on the subject of the bond issue approach. We have had tremendous opposition to the concept of doing away with tax-exempt bonds for this water pollution control purpose.

I will be frank with you, I do not know how a bill can pass with that in it. That is my personal opinion.

Is this absolutely essential to this legislation?

Secretary UDALL. Well, I want Deputy Director Hughes to comment on this as well as myself.

We worked on this at great length. We think that the approach that we have come up with is sound in terms of public finance and in terms of the general economic situation.

I personally think there is a much stronger argument for the approach that we have adopted than simply following a traditional tax-exempt approach.

I think this is a good solution to a problem, and I make that general response and let Director Hughes try his hand at it.

Mr. HUGHES. Mr. Cramer, we are, of course, aware of the opposition. We tried to work with and did work with the city, county, and State organizations in the process of drafting the legislation.

The problem from the Bureau of the Budget standpoint and from the Treasury Department, is the association of a Federal guarantee with the tax-exempt local security.

We are earnestly seeking a solution to this problem that will meet the needs of the program as we see it, the financing needs of the Federal Government, as well as accommodating to traditional concepts of State and local financing.

There are some possible outs or compromises in this area. We would like to explore alternatives with the committee.

But in terms of absolutes, the association of a Federal guarantee with a tax-exempt local bond is a fundamental problem.

Mr. CRAMER. If that is taken out, do I then understand the bill will be acceptable to the administration?

Mr. HUGHES. If the legislation provided for the guarantee of tax-exempt local securities, you are correct, the legislation would not be acceptable.

Mr. CRAMER. It is a pretty rough problem, which places burden on this committee, to try to come up with a solution under those circumstances.

Mr. HUGHES. We recognize that, Mr. Cramer. I think there are some possible alternatives here and we would like to explore them. They are necessarily some more complex than the arrangements in the bill itself, but we would like to pursue them.

COST OF THE CONTRACT APPROACH

Mr. CRAMER. I have one other question. Testimony we have had to date would seem to be pretty well concurred in that, number one, the present authorization limits set out in the bill, $2.275 billion does not include interest of $2.5 billion approximately. That limitation, however, is not a fixed limitation. It is a guideline which you indicate you might accept or at present are accepting the Federal subsidy for interest paid by the States, and the makeup, their tax cost, as a result of revenue on taxable bonds is $900 million.

Mr. HUGHES. Mr. Cramer, that differential is to provide for the difference in the interest rate.

Mr. CRAMER. That is right.

Mr. HUGHES. Local security.

Mr. CRAMER. So actually instead of the $7.25 billion figure, we are talking about an expenditure of $5.675 billion where there is an absolute Fededal liability, is that not correct, approximately?

Mr. HUGHES. That is correct, Mr. Cramer. The only qualification I think is the fact that under a grant program, the interest would still accrue, but would accrue in a different account, interest on the public debt.

There also would be offsetting tax savings with respect to the interest subsidy.

Mr. CRAMER. There is no guarantee written into the legislation the present grant program would continue either, is there? In other

words, the whole authorization could be eaten up with bonds, the amount, rather than grants?

Mr. HUGHES. That is true. There would be flexibility between the two. That is obviously not the intent.

Mr. CRAMER. So those communities that are going forward and have gone forward on a grant basis expecting Federal matching funds, could find themselves in the future forced to accepting this bond issue approach, if they expect to get Federal assistance? That could be the result?

Mr. HUGHES. That, of course, could be the result under the present program as well if the appropriation were not made.

Mr. CRAMER. Of course, it has the interesting aspect of not coming under the debt ceiling.

Mr. HUGHES. The bond issue would not, that is correct. Those would be local issue.

Mr. CRAMER. This is my opinion, they would spend money without having it conform to the debt ceiling?

There is also contingent liability for the State share on the part of the Federal Government, which might approximate $2¼ billion more under the guarantee provision, is that not correct?

Mr. HUGHES. The guarantee would be against the local share.

Mr. CRAMER. Yes, and that is customarily about 50 percent, but it could be less or could be more?

Mr. HUGHES. Yes.

Mr. CRAMER. That is true of a quarter of a million more? Then you have continued liability for interest on State or local share of bonds of about $1.6 million.

Mr. HUGHES. Yes.

Mr. CRAMER. Other than the subsidy?

Mr. HUGHES. That is correct. The Federal guarantee would underwrite both the principal and the interest.

Mr. CRAMER. So your contingent liability under this proposal for 3 years is $3.875 billion, totaling those two figures. So actually the total absolute and continued liability under this 3-year proposal is $9.5 billion?

Secretary UDALL. Congressman, I do not agree with the time frame you have there. Previously the Congress, in the 1966 act, contemplated outright grants of the $3.55 billion, or whatever it is, for a 5-year period.

The larger figure you are talking about—and you and the budget director have no argument on this because your figures are correct—is not a 3-year figure. What we are now proposing under the bond approach is that we finance it entirely differently; we move away from the cash grants, and this is an expenditure that will occur over a 20-, 25-, or 30-year period. And we are really basically saying that we are going to ask the people who will be the beneficiaries of cleaning up our lakes and rivers, probably your children and mine 25 years from now, for them to pay a little bit rather than paying it in cash now, since we do not have the cash. This is about the situation we are facing.

Mr. CRAMER. You express it rightly, sir. This does express the obligation in the future for a maximum of a 30-year period in that amount of money, so our children and grandchildren will be paying that bill

and Congress will be obligated to pay those annual payments, no discretion.

Secretary UDALL. I think we ought to face the fact that this is what we are doing and be very straightforward and honest about it, yes.

NOT "BACKDOOR" FINANCING

Mr. HUGHES. Just one comment, Mr. Cramer. You used the word "backdoor." That is a kind of word of art.

Mr. CRAMER. I realized that.

Mr. HUGHES. It is an appropriation. There is an appropriation requirement.

Mr. CRAMER. It is a different type of gimmick not included in the debt ceiling, that is my statement, backdoor or otherwise.

I have no further questions.

Mr. BLATNIK. Mr. Cleveland.

Mr. CLEVELAND. I would like to address myself to one facet of this problem.

CONSULTATION WITH STATE AND LOCAL GOVERNMENTS

Since, as you said, Mr. Hughes, you had gone over this matter with cities, counties, and States, and sat down with them, your implication was at least that you had some expression of support from them, I think the Secretary would be interested in a letter I received from Mr. Healy, executive director of the New Hampshire Water Supply and Pollution Control Commission. He writes me as follows, under letter dated April 25:

> You might be interested to know, too, that this measure was reviewed at the New England Interstate Water Pollution Control Commission meeting in Portland, Maine, on Tuesday of this week. At the conclusion of the review, the Commission members unanimously voted to recommend that the bill be rejected. There are so many defects in it that this seems to be the preferred course of action, rather than any attempt to offer appropriate amendments. I am sure you, and the other members of the various New England delegations, will be receiving formal notice of the Interstate Commission action from the Executive Secretary, Alfred Peloquin.

Now, with a rather critical letter like that before us and now in the record, I raise the question as to just how much ground work was laid with State, municipal, and county governments before 15907 came up here before this committee?

Mr. HUGHES. Well, I think the State, county, and city organizations obviously can and should speak for themselves.

For the record we did meet very extensively with them, discussed the bill on several occasions and in considerable detail. Their reactions were understandably mixed and——

Mr. CLEVELAND. Excuse me. You said "mixed." Was there anybody who was for it in that group?

Mr. HUGHES. My answer is yes. I think, though, they should speak for themselves, because their positions have shifted from time to time.

Mr. CLEVELAND. Are there available to this committee State authorities to come before this committee and say this is our bill and we are for it?

Mr. HUGHES. I do not know that I can answer that, Mr. Cleveland. I certainly am not here speaking for the State, local, or city organizations.

The question Mr. Cramer asked and the one I was responding to was related to work done with them and what the possibilities were for resolving this tax exemption question. And we certainly are aware of the problem and have worked closely with and tried to keep the State and local organizations fully informed as to our problems, and we have tried to be acquainted with their problems.

We certainly are aware we have not resolved all of them.

Mr. CLEVELAND. You have not resolved—I think that is a euphemistic way of stating it.

It would appear to me, from this letter and from what you told me, although you have talked to these people, it was more in the nature of a warning. It did not sound to me like any kind of partnership, cooperative effort.

If I have heard it once, I have heard it 100 times—I know the Secretary feels this way—if we are going to lick this water pollution problem in this country, it has to be done on a cooperative partnership basis by the Federal Government, State, and local governments. I have heard that so many times.

It is very distressing to me that a bill like this was never apparently discussed in advance, never had any acceptance from not only my own State, but all of the New England States.

Mr. HUGHES. Mr. Cleveland, the bill was discussed with the organizations of State, county, and local people and we would be pleased to meet with the New England people to talk about it, about their particular problems. But it was discussed extensively and in no sense on a notice-giving basis.

We were trying honestly to acquaint them with some of the problems we saw in the guaranteeing of tax exempt obligations and to seek ways of cooperatively dealing with this problem.

POSITION OF FEDERAL AGENCIES

Mr. CLEVELAND. Now, Mr. Hughes, are you with the Bureau of the Budget?

Mr. HUGHES. Yes.

Mr. CLEVELAND. I take it this legislation has the approval of the Bureau of the Budget?

Mr. HUGHES. That is correct.

Mr. CLEVELAND. And we know that it has the approval of the Department of the Interior, because the Secretary is here and is in support of the legislation.

Has the Department of the Treasury been asked its opinion on this legislation?

Mr. HUGHES. Yes, we have consulted with the Treasury as the legislation was developed.

Mr. CLEVELAND. Is the Department of the Treasury in favor of this legislation?

Mr. HUGHES. It is. It supports the bill as it is before the committee.

Mr. CLEVELAND. Do we have a formal report available from the Department of the Treasury?

Mr. HUGHES. I believe you do, Mr. Cleveland, but I am not sure of that. If you do not, I can certainly arrange that one be presented.

Mr. CLEVELAND. Has the Department of Health, Education, and Welfare been consulted in this matter and then do they approve it?

Mr. HUGHES. They were not consulted so far as I know. I do not believe they are directly involved in it. I do not know of any problems with it.

Mr. CLEVELAND. Was the Department of Transportation consulted in this matter and do they approve it?

Mr. HUGHES. As far as I know, no. I do not believe they are involved.

Mr. CLEVELAND. Well, I would think it would be involved, the Coast Guard.

Mr. HUGHES. Mr. Edwards says it has been discussed with the Coast Guard. I do not know if there is a record of the conversation or not.

Mr. EDWARDS. No, there is no record. We had rather extensive discussions, however, with the Coast Guard on matters in which they are interested; that is, the oil pollution and vessel pollution legislation.

UNAWARE OF OPPOSITION IN NEW ENGLAND STATES TO ENACTMENT OF H.R. 15907

Secretary UDALL. Congressman, I would like to say, if I may, because I was disturbed by the letter that you read, our conversations, of necessity because when we are drafting new legislation of this kind, we cannot go into the regions, are with the national organizations, the organization of counties, the municipal or league of cities, and the mayor's organizations. We did confer with them.

Now, we have been aware all along that there were differences and objections that they had to certain details. But all of our conversations at the national level have indicated that everyone was of the view, although there are still differences on the bill, that we could work out a bill and get satisfactory legislation. And I am very surprised to find the New England people say they want the bill thrown out.

I know that certainly is not Senator Muskie's view.

If they have some particular objections, I wish they would come to Washington and sit down with you and with us, and I am sure we can work any questions out. Because I do not see any disagreements so deep here that this committee cannot do as it has in the past and write a workable bill.

Mr. CLEVELAND. I wondered if you or any member of your staff were aware of that meeting?

Secretary UDALL. It came to me as quite a shock to hear you read a letter like that, because I was not aware there was this kind of concern by any of the State groups. Nothing has come to my desk that would indicate that.

Mr. CLEVELAND. I was equally surprised to read the letter when I first saw it on my desk, because I assumed, of course, that legislation of

this import, and far-reaching impact, that at least appropriate members of your Department would have touched bases with at least the State authority. I cannot break it down, in the first instance, to the city and municipal level, but I would think at least with the far-reaching impact of this legislation, that at least you would have touched bases with the State water supply and pollution control commissions.

Secretary UDALL. Congressman, as you know, we have a direct line of communication on water pollution control with all of the States. We have very good relations with most of them.

As a result of what you brought up this morning, I am going to ask Assistant Secretary Edwards and Commissioner Moore to get in touch with them by phone today, find out if meetings can be set up, and let's get this clarified. Because it has not come to my attention that any group of States had such serious reservations about the legislation. We have had very good reaction generally.

Mr. CLEVELAND. Thank you, Mr. Chairman.

Mr. BLATNIK. Mr. Grover.

BACKGROUND OF OIL AND HAZARDOUS SUBSTANCE BILL

Mr. GROVER. Mr. Secretary, let's turn to H.R. 15906.

Reading it over and hearing it discussed, it seems to me it is rather radical surgery for a very serious disease.

I am wondering what studies were involved in bringing this bill before us and who was consulted.

Secretary UDALL. You are talking now about the oil pollution?

Mr. GROVER. Oil pollution.

Secretary UDALL. A year ago, after the *Torrey Canyon* disaster, which served as an alarm bell for everyone, the President got into the picture. He asked Secretary Boyd and me to make a special study of this problem, trying to anticipate what changes in the law would be needed, what plans would be needed to see—not that this did not happen here, because it might very well happen, but how we would handle such a problem of this kind.

We had a high level team. In fact, my representative on it was then Assistant Secretary DiLuzio. We had some of the best scientific people in both departments. And this report was produced, which was sent to the President in February, and I think you will find it a very thorough report and analysis of the total problem.

As a result of this, we did recommend the legislation that is before the committee, so I think I can say to you that we have given very thorough consideration to this problem. The Department of Transportation and their experts and scientists were involved in it. Indeed, as you will see on page 2 of the report we had participation by all of the different departments that would be affected in any way by this kind of legislation.

Mr. GROVER. The Maritime Administration?

Secretary UDALL. Yes.

Mr. GROVER. And was the merchant marine industry involved?

Secretary UDALL. Well, this was a governmental study, but, we did, too, we had the American Petroleum Institute, the National Security Industrial Association, the Conference of State Sanitary Engineers, the National Committee for Prevention of Pollution of Sea by Oil; all of these were brought into it in addition to Government agencies.

Mr. GROVER. But you make no reference to such as the Committee on American Steamship Lines, the industrial sector of the merchant marine industry itself?

Secretary UDALL. I assume that they were consulted. I think I could say with confidence they were. I am not saying they agree with all these provisions, but in terms of drafting a piece of legislation, I would say we had a much more thorough effort than we would normally make in terms of a broad-gage study that involved very high level people.

SHOULD THIS NATION WAIT TO ACT UNTIL THE INTERNATIONAL AGENCY ACTS?

Mr. GROVER. I was not here last week when you were questioned after you presented your statement, but was the question brought up defending any action on this bill pending the meetings of IMCO, the international organization which is studying this?

Secretary UDALL. I think this was mentioned last week. Frankly, I flatly disagree with this argument. I think our job is to protect our communities against spills, and I am all for an international organization that will improve international practices. But to say let us sit back until an international group gets a program going, I think if we do not have a vigorous, aggressive program to protect our shorelines, our seacoast, and our beach communities, we are not doing our job. Therefore, the argument, let's wait for an international solution, does not strike me——

Mr. GROVER. I might suggest, if we do not do something about rebuilding our merchant marine in the next few years, they will be flying foreign flags.

No further questions.

LETTER TO MR. CLEVELAND FROM EXECUTIVE DIRECTOR, NEW HAMPSHIRE WATER SUPPLY AND POLLUTION CONTROL COMMISSION

Mr. CLEVELAND. Mr. Chairman, may I put that letter from Mr. Healy in the record?

Mr. BLATNIK. Yes. Without objection, so ordered.

(Letter from Mr. Healy follows:)

STATE OF NEW HAMPSHIRE,
WATER SUPPLY AND POLLUTION CONTROL COMMISSION,
Concord, N.H., April 25, 1968.

Re H.R. 15907.

HON. JAMES C. CLEVELAND,
House of Representatives,
Washington, D.C.

DEAR JIM: Tom Urie has expressed interest in this proposed legislation and would appreciate receiving a copy of it. I know you will be pleased to accommodate him.

You might be interested to know too that this measure was reviewed at the New England Interstate Water Pollution Control Commission meeting in Portland, Maine on Tuesday of this week. At the conclusion of the review the Commission members unanimously voted to recommend that the bill be rejected. There are so many defects in it that this seems to be the preferred course of action rather than any attempt to offer appropriate amendments. I am sure you, and the other members of the various New England delegations, will be receiving formal notice of the Interstate Commission action from the excutive secretary, Alfred Peloquin.

Kind personal regards.

Sincerely,

WILLIAM A. HEALY, P.E.
Executive Director.

(Letter from Secretary Udall to Chairman Fallon with copy of New England Water Pollution Control Commission comments on H.R. 15907 follows:)

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., May 17, 1968.

Hon. GEORGE H. FALLON,
Chairman, Committee on Public Works,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: When I appeared before the Committee on Public Works on May 2 to continue our discussion of the Administration's pending water pollution control legislation, Representative Cleveland called attention to an expression of opposition by New England water pollution control officials to H.R. 15907, the proposed Water Quality Improvement Act of 1968.

Mr. Cleveland placed in the hearing record a letter dated April 25, which he had received from Mr. William A. Healy, Executive Director, New Hampshire Water Supply and Pollution Control Commission, informing him of the recent action of the New England Water Pollution Control Commission in recommending rejection of the bill.

Since then, I have received a copy of the Commission's comments on H.R. 15907, giving the reasons for the vote in opposition to the bill's enactment which was taken at the Commission's Spring Meeting on April 23. The comments are well developed, clearly stated, and reasonable in tone. I believe that the Commission's statement would be a valuable addition to the hearing record, and I am enclosing a copy of the comments with the request that they be printed in the record following my colloquy with Mr. Cleveland (page 737 of the transcript). The Commission's objections to H.R. 15907 as introduced, together with the suggestions of other organizations and individuals, will be helpful to us, as I believe they will be to the Committee, in our common effort to develop the strongest possible water pollution control legislation.

Sincerely yours,

STEWART L. UDALL,
Secretary of the Interior.

NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION,
Boston, Mass., May 8, 1968.

GEORGE H. FALLON,
Chairman, Committee on Public Works, Rayburn House Office Building, Washington, D.C.

DEAR SIR: The New England Interstate Water Pollution Control Commission at its Spring Meeting held on April 23, 1968 voted to register opposition to the passage of H.R. 15907 and S. 3206. The proposed legislation has been reviewed by personnel of the water pollution control agencies of the States of Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island and Vermont, and although recognizing that there are some good features in the bills it is the consensus of the Commission that these are outweighed by features which could seriously delay or damage State water pollution abatement schedules and programs developed in compliance with the Water Quality Act of 1965.

Enclosed are two copies of comments of the New England Interstate Water Pollution Control Commission relative to H.R. 15907. Officials believe that the States waste treatment plant construction programs will receive a major setback unless a percentage limit is placed on projects assisted under contractual arrangements with the balance of the funds allocated on a formula grant basis.

The Commission wishes to thank the Committee for the opportunity of submitting its views on H.R. 15907.

Very truly yours,

ALFRED E. PELOQUIN,
Executive Secretary.

COMMENTS OF THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION RELATIVE TO H.R. 15907

The New England Interstate Water Pollution Control Commission and the Compact signatory States have reviewed H.R. 15907 and considered its impact upon the individual State water pollution abatement programs.

It is recognized that the present level of appropriated funds under Section 8 of the Clean Water Restoration Act of 1966 is inadequate to sustain the level of construction of waste treatment facilities indicated in the State implementation plans submitted to the Federal Water Pollution Control Administration in compliance with the Water Quality Act of 1965. Means of obtaining additional funds must be developed if program momentum is to be maintained.

Lack of Federal construction grant funds and the reimbursement provision set forth in the Clean Water Restoration Act of 1966 led to legislative authorization for prefinancing the Federal grant share by the States of Connecticut, Maine, Massachusetts, New York and Vermont. The State of Rhode Island presently has such legislation under active consideration. These six States feel that with elimination of the reimbursement provisions from Public Law 660 as amended, it would not be possible to maintain the anticipated schedule of water pollution abatement, and it will be necessary for each State to reconsider its commitments to the Federal Water Pollution Control Administration relative to requirements of the Water Quality Act of 1965. Regardless of the method of providing additional construction grant funds, it is recommended that the reimbursement provisions of Public Law 660 be retained.

Limiting contractual arrangements to areas of 125,000 persons or more or a Standard Metropolitan Statistical Area would eliminate from consideration many communities in the New England Interstate Compact area. As shown in Table 1, there are 24 SMSA's in the New England Interstate Compact area and seven communities with a population of 125,000 or more. These communities are all within SMSA's. (Photocopies of State maps showing SMSA's in the New England Compact area are attached for reference.)

TABLE 1

State	Number of SMSA's	Number of communities 125,000 or more	Communities
Connecticut	9	3	Bridgeport, New Haven, Hartford.
Maine	2	0	
Massachusetts	10	3	Boston, Worcester, Springfield.
New Hampshire	1	0	
New York (compact area only)	[1] 1	0	
Rhode Island	1	1	Providence.
Vermont	0	0	
Total	24	7	

[1] Part only.

Construction of waste treatment facilities for all other areas would be dependent upon the appropriated grant funds only, which admittedly, are inadequate. Existing State prefinancing authorizations in anticipation of subsequent

reimbursement should stimulate construction in these other areas to a level approaching that required to meet the implementation schedules submitted to the Federal Government.

Supplemental financing should provide for specific allocations to States. Without such allocation, it will be impossible to plan what projects could be financed during a given year. Allocations could be based on the allocations set forth in Public Law 660 as amended or on formulas considering the population equivalent of a given waste; the Biochemical Oxygen Demand removal required to achieve the approved stream classification; anticipated volume of waste to be treated; anticipated strength of wastes to be treated or other similar methods. Under the language of the proposed bill as now written, it is conceivable that ten States could receive all funds appropriated for contractual agreements with the remaining forty States receiving no assistance.

The proposed bill requires the maintenance of a reserve fund to meet expansion or replacement requirements of the treatment works service area as a qualifying condition for contractual agreements. Such reserve funds are illegal in Massachusetts, and it is possible that some municipal charters in other States would not allow reserve accounts. The language of the proposed bill as pertains to user charges and the maintenance of a reserve fund has been interpreted by some as double payment for waste treatment facilities—user charges to amortize the cost of the facilities and additional charges to establish a reserve account. The other alternative to establishing a reserve account is expanding the bonding requirement. Such a requirement could meet with strong resistance in local referenda. Serious delays in qualifying for contractual agreements could be incurred should a municipality find it necessary to obtain additional legislative bonding authorizations.

Banks involved in municipal financing state that the debt service contract indebtedness reflects on a community's bonded indebtedness. If a community's debt limit is to be exceeded, special authorizing legislation would be required. Such action could delay the funding of a proposed treatment works. Bonding authorizations in the past have been granted to cover only a municipality's contribution to the cost of new facilities and not the cost of the entire project. Additional bonding authority would be required for those communities already authorized to sell bonds in anticipation of project construction thereby causing additional delays in getting needed projects underway.

The New England Interstate Water Pollution Control Commission supports the concept of mandatory certification of waste treatment plant operators as an instrument for improved waste treatment plant operation. The Commission has recently sponsored three one-week courses as in-service training for operators and is working toward establishment of a permanent school to train new people not now with the waste treatment industry. All courses will be designed to qualify an operator for certification. Upon completion of future in-service training courses, the New England Water Pollution Control Association certification examination will be offered to all operators on a voluntary basis. New Hampshire has a mandatory certification program and the Massachusetts legislature is considering a similar program for the Commonwealth. The New England Interstate Water Pollution Control Commission will encourage the development of a regional mandatory certification program. Coupled with the certification program must be an adequate wage scale for plant operators, and a concerted effort to make the industry more attractive as a career.

The States signatory to the New England Interstate Water Pollution Control Compact maintain a schedule of waste treatment plant inspections and require submission of periodic operational reports. Operation and maintenance surveillance could be strengthened to insure increased plant operation efficiency. New York State provides for operation and maintenance grants of one-third of the total eligible cost of operating and maintaining treatment facilities. To qualify under this program, the municipality must:

"(1) Maintain standard operating reports, including the results of laboratory tests to evaluate plant performance and determine the effect of the plant effluent on the receiving waters.

"(2) Operate the sewage treatment plant under the supervision of a qualified operator.

"(3) Collect and treat all sewage from the tributary area.

"(4) Present evidence that the sewage treatment plant has been constructed in compliance with approved plans.

"(5) Have enacted and enforced an effective sewer use ordinance.

"In addition, the municipality must provide a minimum of primary treatment at this time, adequate staffing of the plant, and laboratory tests and physical measurements to evaluate plant performance and determine compliance with stream standards."

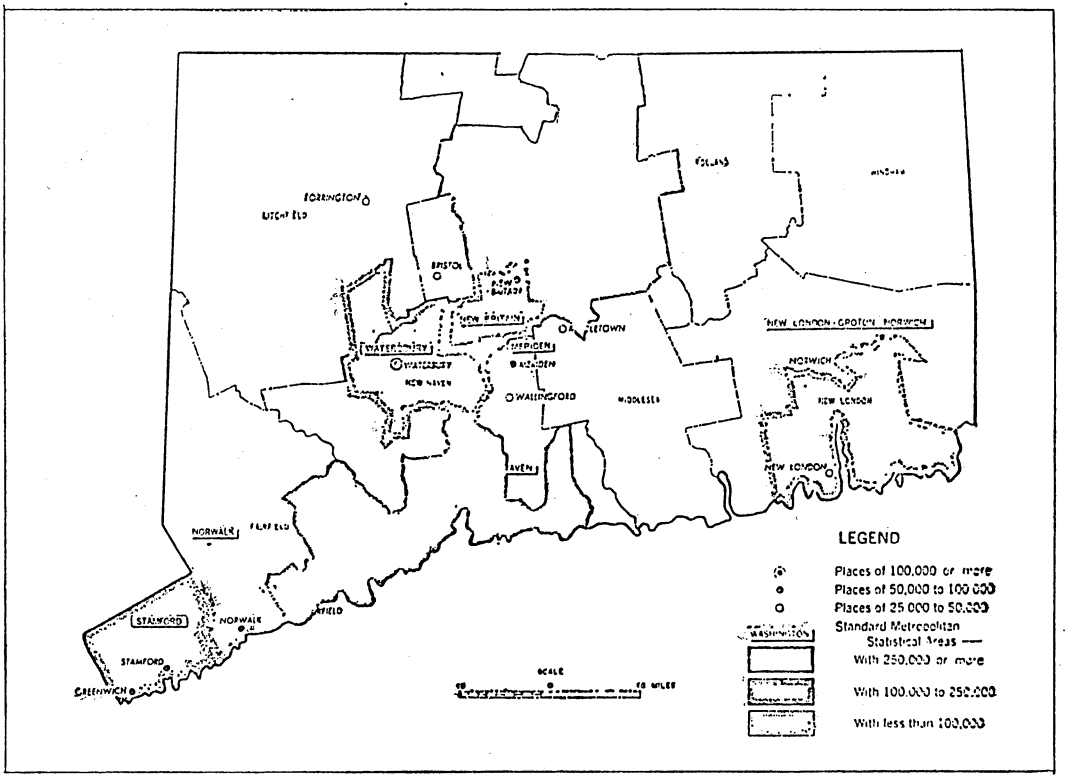
The signatory State agree that more research is necessary in several areas, however, the amount proposed for research under HR 15907 is approximately 56 percent of the total requested construction grant appropriation. With due consideration to the currently critical financial situation, and the need for treatment plant construction, it would seem appropriate to reduce the research appropriation by at least one-half and add the difference to the construction grant appropriation.

It is noted that the proposed legislation would eliminate the provision in the existing act that one of the Federal regional water pollution control laboratories shall be located in the Northeastern area of the United States. It is our understanding that the site for this laboratory was selected and the final construction plans prepared for locating the facility in the Boston, Massachusetts area. The New England area has many problems peculiar to the region which would support the location of a regional laboratory in the Boston area. Among these are agricultural run-off which adds nutrients and pesticides to our surface waters. The problem of combined sewage storm water systems which are prevalent in this area; wastes associated with the food processing industries; the pulp and paper industries and tanneries still create problems in the waterways of the Compact areas. The accumulated bottom deposits in our streams and lakes from these industrial as well as municipal wastes have undoubtedly changed the characteristics of the aquatic ecology and studies oriented to the restoration of a balanced clean water biota would be of great benefit to the region. With more than 4500 miles of coastline in New England, the problem of water pollution from vessels is one which warrants considerable study. With this in mind, it would seem highly desirable to retain the Boston site for a regional water pollution control laboratory serving the Northeast

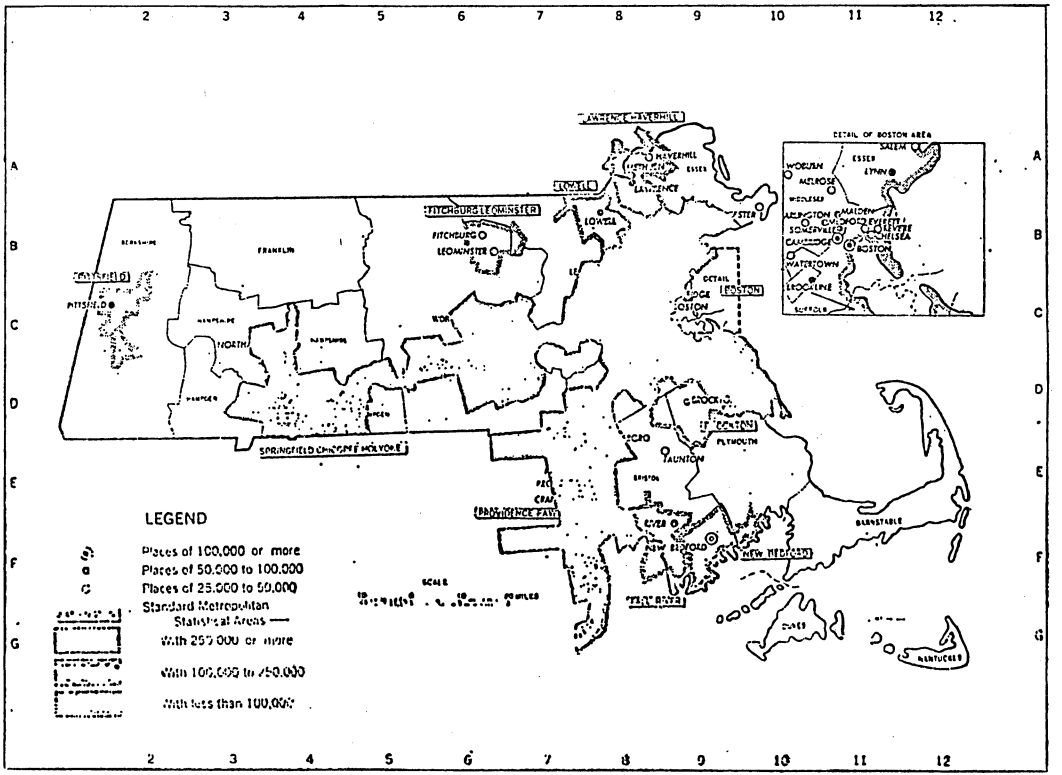
The Commission notes with concern the provision to remove the tax exempt status of bonds for construction of waste treatment facilities. It is anticipated that removing the tax exemption feature would hamper the marketability of municipal bonds and might allow interest rates to exceed legal limits.

In conclusion, it is considered imperative that the prefinancing authorization set forth in Public Law 660 as amended be retained; additional funds are needed to maintain the program momentum for water pollution abatement if the States' implementation plans are to be realized on schedule; new funding requirements should allow sufficient time for communities to comply with the requirements without generating a "slow-down" of construction activity. A system of fund allocations to States must be developed to allow for the effective planning and construction of treatment works. Removal of the tax exempt status of municipal bonds could make the financing of water pollution abatement projects more costly at the local level, and in some instances result in the need for legislative authority to exceed legal interest rate limits. From the standpoint of program administration, it would be highly desirable to develop aid programs compatible with existing programs so as not to increase the administrative load on the State regulatory agencies. It is also recommended that the research fund authorization set forth in the proposed bill be reduced with the difference applied to available construction grant funds; and, that consideration be given to retaining the Boston, Massachusetts area site for the regional water pollution control laboratory serving the northeast region.

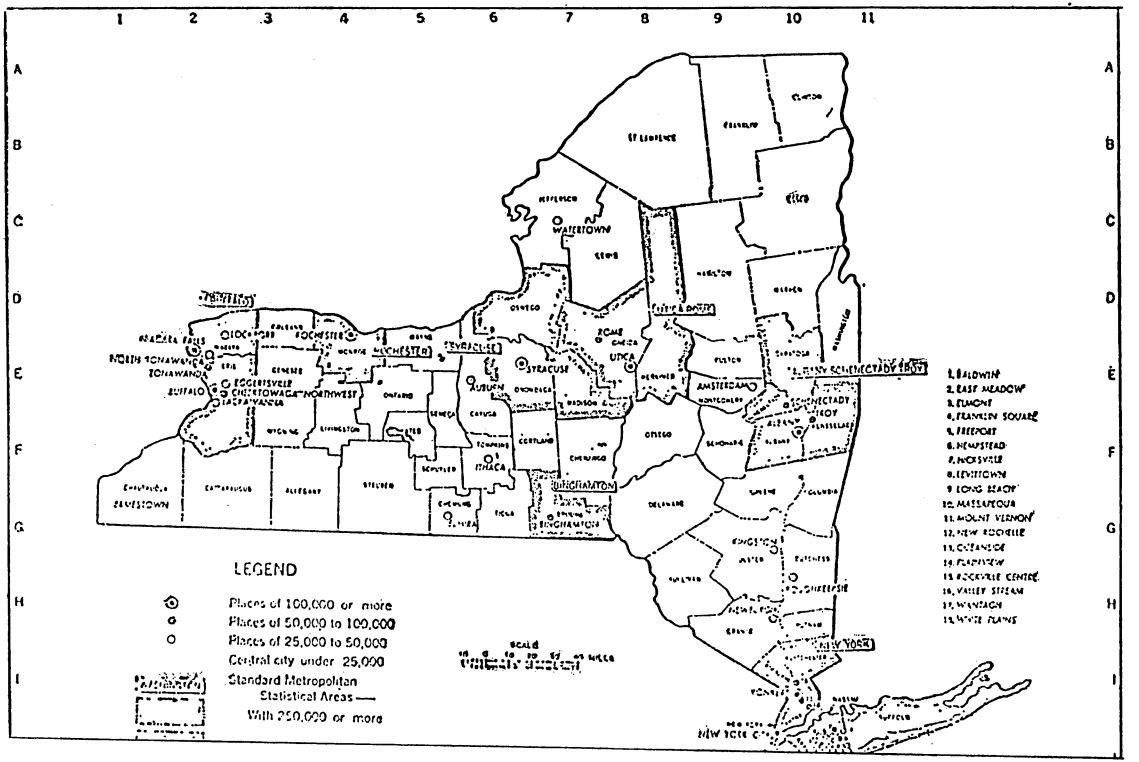
CONNECTICUT– COUNTIES, PLACES OF 25,000 OR MORE, AND STANDARD METROPOLITAN STATISTICAL AREAS



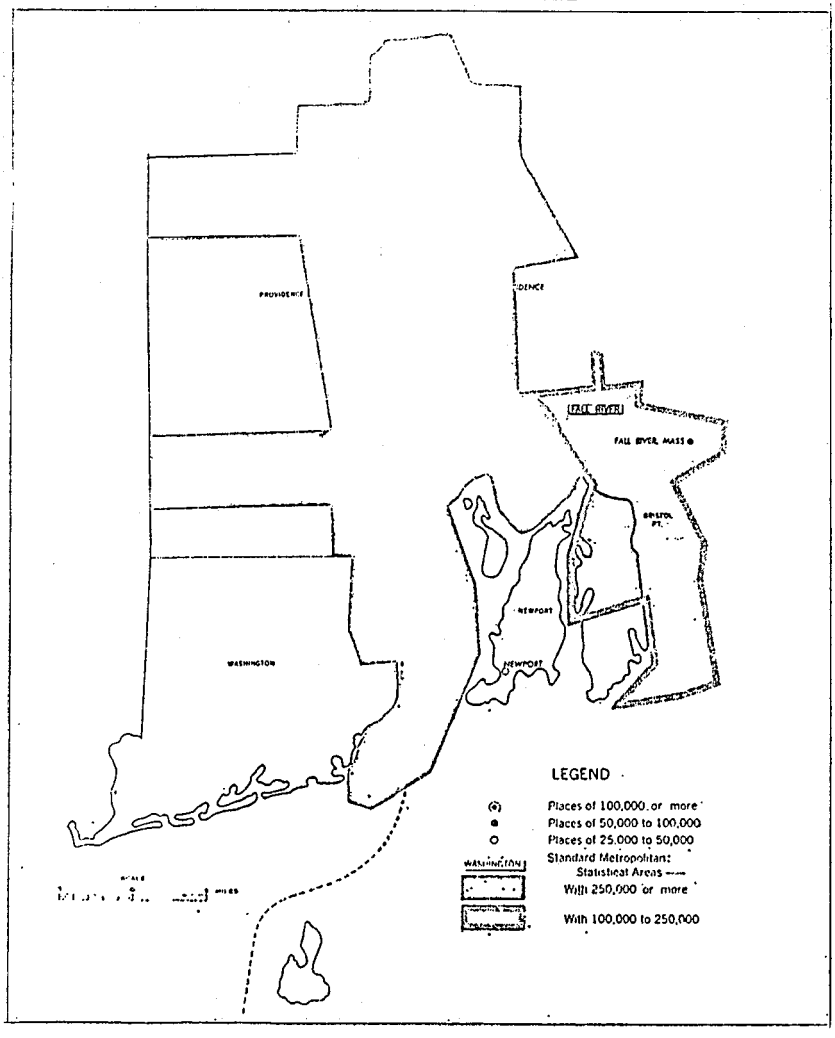
MASSACHUSETTS—COUNTIES, PLACES OF 25,000 OR MORE, AND STANDARD METROPOLITAN STATISTICAL AREAS



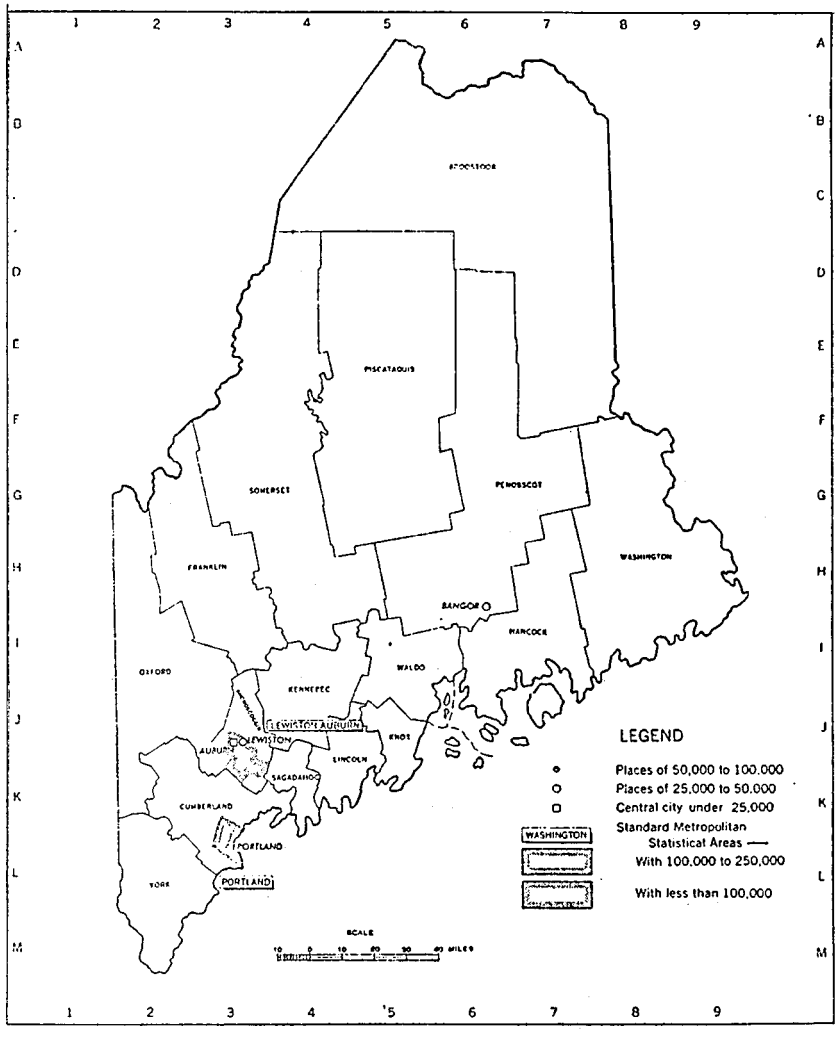
NEW YORK—COUNTIES, PLACES OF 25,000 OR MORE, AND STANDARD METROPOLITAN STATISTICAL AREAS



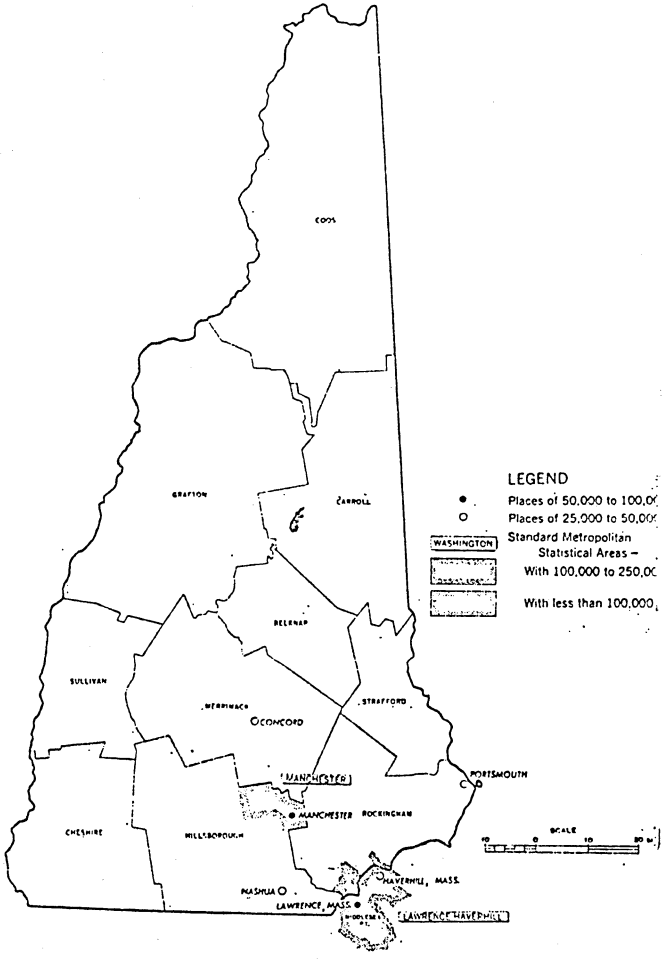
RHODE ISLAND—COUNTIES, PLACES OF 25,000 OR MORE, AND STANDARD METROPOLITAN STATISTICAL AREAS



MAINE—COUNTIES, PLACES OF 25,000 OR MORE, AND STANDARD METROPOLITAN STATISTICAL AREAS



NEW HAMPSHIRE—COUNTIES, PLACES OF 25,000 OR MORE, AND STANDARD METROPOLITAN STATISTICAL AREAS



APPROVAL OF STATES' WATER QUALITY STANDARDS

Mr. BLATNIK. The gentleman from New York is recognized.

Mr. MCEWEN. Mr. Secretary, during your testimony here on April 23, you informed us that the standards for 31 States have been approved. Have those been published as yet in the Federal Register?

Secretary UDALL. Apparently the answer as of the moment is "No," but our plans are underway to do that.

Mr. MCEWEN. Because it was in the Federal Register February 7 that I noticed over your signature there is a notice on water quality standards.

In fact, Mr. Secretary, have any of the 31 been definitely cited as approved without any exceptions or any exclusions?

Secretary UDALL. Yes, there have been several. The approach that we have taken generally—and I think it is a wise approach is this. We began a year ago, Congressman, with the idea that in terms of approving State standards, what we should be seeking is to have a State present something, let us rubber stamp it and approve it and send it back to them. It has since been decided that this whole problem of standards is an ongoing problem, because technology is changing. These are water quality standards, the States will want to raise them.

AREAS RESERVED FROM APPROVAL

This is going to be an ongoing process. Therefore, the procedure that we have been following is generally not to just say, "Here they are, they are approved," and send them back to them, but we found many instances where there are special problems, and you can describe these as exceptions or you can describe them simply as problems that we single out, where we indicate to them where we will be studying these matters further and refining the details on standards. So what we are giving back to the States is not a flat outright 100-percent approval. We say: Your standards are approved. But we then single out in most of these maybe three or four or five problems, whatever there may be, and we indicate to them that we feel that there should be further work in refining the standards on these matters, and that we are reserving the right to further consult with them before final action is taken.

There is another series of actions that we have taken where we singled out major problems in some river basins—the salinity problem in the Colorado Basin, the thermal problem in another basin. We specifically told the States we were not going to make the decision on these matters, that we were going to study with them at considerable length before a final decision is reached. This is the kind of approach.

MAY STATES ACT WITH RELIANCE ON STANDARDS AS APPROVED?

Mr. MCEWEN. Mr. Secretary, what assurance does the State have—you used the phrase here, this is an ongoing matter and as technology develops, and so forth, that these things will be reviewed.

In my own State of New York, I know you are familiar, we have had a thorough classification of all of the lakes and streams of this area pursuant to our law. Water quality standards were established

after hearings, after an opportunity was given to municipalities, to industry, to everyone who was interested to come in.

What I am concerned about is at what point de we finally have it determined what water quality standards have been set for a given stream, for a given sector of a river, so that a municipality, industry, can go ahead with their treatment facilities confident that what they are doing is going to comply with the standards not only of the State, but as approved by your Department?

Secretary UDALL. Well, I think this type of assurance must be part of a program I think because New York is a State that has been very thorough, very aggressive about this, that you would find that in our discussion with them about their standards, we are approving all of the main criteria. What we are singling out really for further work are special problems that exist in special rivers or other areas. And I think the best way really to answer that question would be to sit down and go over the present status of the New York standards and to show what our approval has been.

I would say, in the main, that all the States we have been working with the last 3 or 4 months have been pleased and satisfied with the results that we have achieved, and I think their water pollution control people do not have a philosophical or other argument with us with regard to getting more precise answers to some of these problems where we have not been satisfied that the standard setting is precise enough in terms of what the Congress contemplated.

SECONDARY TREATMENT REQUIREMENT

Mr. MCEWEN. Mr. Secretary, have you required secondary treatment in all cases?

Secretary UDALL. We are urging the States to commit themselves to secondary treatment of municipal wastes in most cases. In our basic guidelines, specifically guideline No. 8 we stated, "Further, no standard will be approved which does not require all wastes, prior to discharge into any interstate water, to receive the best practicable treatment or control unless it can be demonstrated that a lesser degree of treatment or control will provide for water quality enhancement commensurate with proposed present and future water uses." In practice this guideline usually means but not always, secondary treatment of municipal wastes. But it is important to remember that the guidelines suggested certain actions, they did not require them.

Mr. MCEWEN. As I understand it, we have had streams where classification has been such that quality of that water could be made clean without the secondary treatment required at this time.

What I ask you now is under what provision of law do you require secondary treatment if the water quality standards do not require it?

Secretary UDALL. While we do not require secondary treatment, it is obvious that the Water Quality Act of 1965 called for upgrading of water quality, which requires a good degree of waste treatment in order to be achieved. Additionally, the act clearly called for plans of implementation to achieve the designated levels of water quality. We at the Federal level have the responsibility to assure that the plans developed by the States for implementing standards are effective and

reasonable. The term "secondary treatment" seems in many cases to identify the kind of treatment which will best meet water quality standards with respect to municipal wastes. The term has little or no application as far as industrial wastes are concerned.

There may be some special situations—again, we have tried not to be categorical and inflexible—where exceptions are necessary. We sit down and discuss these particular situations if they do exist.

But generally the States have agreed with us with regard to the requirement of secondary treatment.

I think most of your water pollution control people in the country at large realize that this is very basic if we are going to have a meaningful water pollution control program in the country.

Mr. CRAMER. Will the gentleman yield on that point?

Mr. MCEWEN. Yes.

UNCERTAINTY REGARDING STANDARDS

Mr. CRAMER. I have a serious question that every State is faced with, one reason we do not have any real certainty as it relates to the State's activities. I think that is what the gentleman is getting at.

For instance, in May 1966, pursuant to the 1965 act, guidelines were issued.

Eight says that water is to receive best practicable treatment for control of pollutants under those standards, unless it can be demonstrated that a less degree of treatment of control will provide for water quality enhancement commensurate with the proposed present and future water uses.

And in no instance was there any mention of secondary treatment so long as that standard was acquired.

I understand also on Saturday, May 14, of 1966, the Federal Register carried certain requirements, and then subsequent thereto, that same publication, dated January 24, 1968, in the Federal Register. Then 15 days later, as I understand it, your Department issued by the medium of press release, I understand without hearings, notice, or rulemaking procedure, your standards or proposal with regard ot the nondegradation. I think it was contemplated by Congress that, No. 1, all States should be properly noticed and have proper notice of what the standards are. It is necessary for hearings to be held if those standards are to be changed.

Third, if the standards ever should become finalized, and here we are 3 years after we passed the act, and they still do not appear to be finalized, nor do they appear to be properly published in the Federal Register.

(At this point, Mr. McCarthy assumed the chair.)

PROCEDURE IN THE ESTABLISHMENT OF WATER QUALITY STANDARDS

Secretary UDALL. Congressman, let me acquaint you with the procedure we have followed since the 1965 act was passed.

The first thing that we tried to do in laying down guidelines was to help the States, because the States under the law have the primary responsibility, if they want to exercise it, of fixing their own water quality standards. And our objective has been to work with them to

get standards that we could approve, so that they are the State's standards.

We first put together teams of water experts, scientists of all kinds, and with their help a year ago, or 2 years ago, actually, we came in with a set of guidelines for establishing water quality standards.

Now, this was an indication, we wanted to indicate to all of the States what we felt the Congress had in mind and what guidelines they should follow in coming up with acceptable standards.

The hearings that have been taking place on the standards are conducted by the States, not by us. And in each State in this country during the last 18 months, there have been all kinds of public hearings—in fact, Commissioner Moore, here, held them all over the State of Texas for a period of 4 months.

So the hearings were held and should have been held, but they were hearings in all cases by the States and not by the Federal Government.

Then once the hearings were completed, the States got up their proposed water quality standards, submitted them to us, and then this process of negotiation went forward, and this is the procedure by which we have arrived at agreement with 31 States on water quality standards.

Mr. CRAMER. But those agreements are all made with some reservation, is that not correct?

Secretary UDALL. They are, with reservations, in some cases because of necessity, because this is a dynamic process.

REVISION IN STANDARDS

Mr. CRAMER. I understand that. However, we specifically set out that if the State does not file the necessary letters and so forth, and if the Secretary desires a revision, the Secretary may, after reasonable notice and conference with representatives, prepare regulations, and thereafter there shall be hearings before a hearing board; and on the basis of the evidence presented at the hearing, the hearing board will make findings, and so forth.

So there is a clear procedure set out for accomplishing, if justified, such things as "the nondegradation standard as guidelines", but this appears to have been accomplished by your decision without following this procedure for revision of the previous published guidelines of Saturday, May 14, 1966, and reconfirmed January 24, 1968.

NO STATE'S STANDARDS REJECTED

Secretary UDALL. Congressman, I want to explain the situation we are in right now, and I think it is very important that the committee understand this. The procedure that you describe is in the law, and it is directed to what we do in the event we reject State standards. We have not rejected any. Indeed, our effort has been to negotiate very strenuously where we have disagreements and to resolve all of the issues we can and then, if there are some remaining issues, simply put them aside, to approve everything, and put these issues aside.

Now, we chose to do this, and I think it was a wise decision, rather than to say if we approve 99 percent of their standards, and 1 percent we disagree, we disapprove the whole thing and set Federal standards. I think that would have been a very foolish thing to do.

WORKING WITH THE STATES ON UNRESOLVED ISSUES

We have adopted the basic approach of wanting to assist the States to improve their standards, and to get standards that we can approve, so that the States will feel that it is their program and they are going to enforce and supervise the working out of the State standards.

And so, rather than adopt the rigid approach which we were talking about a year ago and saying, unless we approve every little detail, we will not approve State standards, we have adopted this flexible approach, and we simply notify them that we approve their standards, but that there are certain unresolved issues and we will continue to talk with them about those, and we sort of leave those on the table.

NO CONSTRUCTION GRANT APPLICATIONS DISAPPROVED ON ACCOUNT OF RESERVATIONS

Mr. CRAMER. Have you returned any application for sewage treatment construction grants as a result of those reservations?

Secretary UDALL. None.

"NO DEGRADATION" POLICY

Mr. CRAMER. Now, this no degradation approach, in which the present quality of the water is a condition of approval, were the States consulted relating to that prior to the decision, at the time the decision was made?

NO DEGRADATION LANGUAGE AVAILABLE

Secretary UDALL. This was an issue that was raised in our guidelines that we put out 2 years ago in terms of what was intended. And we have had to not only notify the States; we have had to have extensive discussions with all of the States on implementing this. And again we do not have any stock boilerplate language. We work with each State in trying to get a piece of language that they can put in their standards that will, we believe, satisfy the act and then be workable in terms of whatever problems they have.

In other words, we have not said to them that here is language, this has to be in your standards. We have said that we think that a certain objective is required by the act, and we want to achieve it, and we want a program that will be practical and feasible.

Now, let us sit down and negotiate a general provision in the standards which will cover this particular question.

This is the approach we have used.

Mr. CRAMER. I understand that. However, that is not responsive to my question relating to the fact that you made a major change, as I construe it, relating to this question of nondegradation. I do not think there is a question but that that is a major change, without following the procedures of the act or, in the alternative, conferring with the States relating to that new major requirement.

Secretary UDALL. Well, I do not regard it—some of them may regard it as a new major requirement. Ithink it was implicit in the act as it was enacted initially. We advised them of it in our initial guidelines, and it was merely a matter of construing, not a matter of pro-

posing, something new. It was a matter of how we construed the basic tenor of the act, and how we implemented it.

Mr. CRAMER. Can you indicate where in the initial guidelines that was contemplated? You have it before you there, I believe. I have read them, and I do not see it.

GUIDELINE NO. 1 CONTAINS ESSENCE OF NO DEGRADATION POLICY

Secretary UDALL. I think the essence of it is in the very first guideline, policy guideline, water policy standards should be designed to enhance the quality of water.

This is where we got to the real guts of the question. What does that mean?

This was the philosophy that was implicit in the 1965 act, that this was an act to improve water. It is not to degrade water. This is the very first guideline we laid down. It is where we began.

FUTURE LOCATION BY INDUSTRY ON RELATIVELY CLEAN STREAMS

Mr. CRAMER. That implies that any stream that is not presently being used for industrial purposes cannot so be used in the future if that use in any way changes the present condition of the water in any way or to any degree, if it has any degradation whatsoever, even though it means that industry could not locate there, and even though a State might use it to set aside certain streams for that specific purpose of industrial development.

Secretary UDALL. Well, Congressman, we have not taken that kind of rigid view. I do not think you can. And I discussed Alaska as an example, which is largely an undeveloped State in terms of its resources.

We have left the door open to the consideration of any proposals.

On the other hand, I think in most States you are going to find that these prime unpolluted streams are usually your best trout fishing streams, and other streams, and that they are going to protect them.

Mr. CRAMER. I understand that.

Secretary UDALL. They are not going to want industry to get on them, at least I do not.

Mr. CRAMER. Is it not true in any instance where the State of Alaska, or any other State, wishes to place industry on a river and there is the prospect of some degree of degradation, that it requires approval by you individually as a Secretary and not by the State?

Secretary UDALL. It would require approval——

Mr. CRAMER. In addition to the States.

Secretary UDALL. It would require joint approval, let us put it that way.

Mr. CRAMER. So, in effect, we are getting right around to what many of us had grave concerns about when this was established in the first place.

And that was that we would end up with the Secretary in effect being able to revoke or not approve or override a State decision to, for instance, locate a plant, even though there was substantial sewage treatment facilities provided which there would be, on a river which

would have the effect of any degradation whatsoever; and I cannot imagine a plant that would not have some, particularly now when you are going into thermal heating. If the water comes out of a powerplant heated, that is considered to be degradation. I think that is pending now in Miami, Dade County, where the local authorities approved the project.

The local pollution authorities approved the project, but it has—and also in Orlando—it does heat the water. Although there is requirement not to heat it above a certain degree. And the Federal Government has said, no, we will not let you build that plant, because there is a thermal degradation.

REASONABLE DETERMINATION OF WATER USE A STATE PREROGATIVE

Now, it seems to me that somewhere—and I certainly contemplated when we worked on the Clean Water Act in 1965 that standards would be set, that the States would have the jurisdiction to determine within reason where a stream should be used for industrial purposes, the nature of that, and under those guidelines, without having to come to the Secretary on every approval for every plant.

Secretary UDALL. Well, they are not usually going to have to come to the Secretary for approval on plants. There may be a few rare cases that will get to my desk. I think the situation that has developed is that as far as most of your State water pollution control agencies are concerned, they have the same kind of expertise, the same kind of people working as we have in the Federal agency. Most of these matters are going to be worked out at the local level. The States are going to have the main responsibility once their standards are approved.

I would predict there are going to be far fewer of these troublesome exceptional cases that we are talking about here than anyone realizes; because I do not think that we have a great difference between what the States want to do and what the Federal Government wants to achieve.

Mr. CRAMER. I just want to say to you as one of those who worked hard on that legislation and assisted in getting unanimous support for it, I appealed to my colleagues on the floor of the House on the basis that these standards would be set and fixed pursuant to the act, and for certain streams it would be obvious that it would be needed for industrial purposes and that the States, under those standards, would have the final say-so relating to the location of those plants.

Now, it appears, however, that it now takes approval of the Federal Government, and the Federal Government is assuming by that means the responsibility relating to land use, zoning, in effect, on all interstate streams in this country.

FEDERAL INVOLVEMENT IN STANDARDS IMPLEMENTATION EXPECTED ONLY IN UNUSAL SITUATIONS

Secretary UDALL. Congressman, I can only say, in terms of how we are actually functioning and how the implementation of the act is going to work out, that some of the fears that some have, that the

Federal Government is staying in the picture too much and that we are going to make the basic decisions, that this is not the way that the program is working out in fact.

If we approve the State standards and——

Mr. CRAMER. Including nondegradation.

Secretary UDALL. An get nondegradation language with them, the only time, probably, that we are going to be called into the picture is when a big argument develops within a State, and it is usually going to be the sportsmen and the conservation interests against industry. Let us be frank about it. When the argument develops, if this involves the nondegradation issue, we may be brought into it. But we are not sitting looking over the shoulders of the States. Those standards have been approved. We do not want to, and we expect to get in only in those rare cases where there is argument, whether the State is observing its standards, whether it is enforcing its standards.

It is really up to the States to be vigorous about it.

Mr. CRAMER. You are actually in it. That is all I have.

MEANING OF "NO DEGRADATION" POLICY

Mr. MCEWEN. I do not have a transcript of your testimony before the committee in the other body, but I have a copy of Conservation News, April 15, in which they say, referring to you, Mr. Secretary:

He said he resolved this issue by requiring that standards shall include a provision to assure that present water quality will not be degraded.

I quote further from this:

We are asking, Mr. Udall said, that a paragraph be included in enforcible standards, substantially in accord with the following:

Then it quotes, I assume from the standard, Mr. Secretary, and I would like to know if this is correct:

Water whose existing quality is better than the established standard as of the date on which such standards became effective will be maintained at their existing high quality. These and other waters of your State will not be lowered in quality unless and until it has been affirmatively demonstrated to the State water pollution control agency and the Department of Interior that such change is justifiable as a result of necessary economic or social development and will not interfere with or become injurious to any assigned uses made of, or presently possible in, such waters.

Is that correct?

Secretary UDALL. This is the water quality degradation statement, the policy statement that we issued.

Mr. MCEWEN. Is it not fair to assume that you are going to be under that policy in the middle of every controversy in every one of the 50 States where the Isaak Walton League or the local fish and game club, or whoever it may be, feels that a plant is going to, as it would of necessity, I would think, somewhat downgrade the quality of the water, even though it would not affect the standard that had been set on that water?

THE WATER QUALITY ACT NOT A DEGRADATION ACT

Secretary UDALL. Your State conservation agencies these days are just as sensitive to the Isaak Walton League as I am. They are going

to hear from them. And I think most of these issues are going to be fought out and resolved at the State level; but this is the real basic question we faced, and we might as well be frank about it, and that is why this statement reads as it does, and, as you can see, we left the door open for exceptions; but did the Congress in 1965 write an act whereby standards would be set, which, in effect, invite the degradation of waters down to some floor, or did the Congress write an act which contemplated that the waters of this Nation were going to be improved?

This was the basic question.

And if some Members of Congress think that the act was a water degradation act, I do not interpret it that way, and I may be wrong. And the Congress can revise it if they want to, but that was the view that we took, that it was a water enhancement, an enhancement of quality act, and that therefore the standards should not be used to invite degradation.

STANDARDS AND INDUSTRIAL GROWTH

Mr. McEwen. Mr. Secretary, as one who sat on this committee and supported this bill both here and on the floor, and as a New Yorker who is proud of the program that we have in New York State for cleaning up our streams and improving our water, I certainly never anticipated that the location of an industry would be a matter not only of State review but approval by the Secretary of Interior.

May I say, if I can be parochial, in my own congressional district we are proud of some of the trout waters that exist in the State of New York or anywhere else in this case. And we want those for recreation areas; but we also, on the last count I made, they have almost one score of papermills that are furnishing all manners of paper products to a consuming public that wants them.

We never anticipated, with the paper industry and other industries, that they could not have future growth, future development in that area as long as they did not destroy the quality of the water, as it had been set following public hearings.

I am frankly, Mr. Secretary, shocked when I read that it is contemplated, and I quote again from this apparent standard, that water will not be lowered in quality—let me say, Mr. Secretary, and I said when the gentleman from Iowa said he read your book, I, sir, not only read it, I bought it.

But I am concerned, as you are, and I think all of our people are, in maintaining the waters of America. But I think we all recognize, or at least we should, that this affluent society has effluence, can't eliminate all the effluents if we are going to have the products of industry. We want industry, we want the jobs, and we want the products that they provide.

In our own State we have said what we have believed, I am going to ask now, have you approved the New York State standards?

Secretary Udall. Yes. We have given general approval to the New York standards.

"NO DEGRADATION" POLICY WOULD NOT PRECLUDE NEW INDUSTRY

Congressman, you raised the real crucial question, and this is very good dialog. I know people are listening who should be listening.

And I want to make a statement to you on this. Because the idea has gotten out that the nondegradation policy means no new industry. And this is ridiculous. It has no such effect.

Let me get very specific. The State of New York is a good place to get very specific, because there are many cities on the Hudson River, on the Mohawk and tributaries, for example, that pour untreated sewage into the Hudson River. And the purpose of this act, of course, is to have the municipalities and the industries clean up their effluents.

Now, if you take one of the cities, and I will not mention names, on the Hudson River, which is providing no treatment whatsoever, it is pouring raw sewage in, and it puts in even a primary treatment plant, you have upgraded the quality of the river, have you not, by that one act you have upgraded the quality; and by upgrading the quality without any degradation whatsoever you have opened the door to additional industry right there.

As industry acts, and industry is acting—look in Business Week magazine this week, they are really moving, and I am proud of industry for their investments and their emotion on this. But as this program gets underway, we are going to be improving water, and the door is wide open to new industry, because most of the new industry that is coming in is going to be required by the States—I will not have to require it—to put in the best and most modern water pollution control equipment, and their pollution will be very minimal.

In other words, one of these cities on the Hudson will open the door to a lot of industry, once you clean it up. So that I think the degradation issue or nondegradation issue is being used today as a bugaboo by some of my friends. I do not think it is going to have that effect. I do not think it is going to operate that way.

Mr. McEwen. May I suggest, Mr. Secretary, that it is certainly time now that this be clarified, because certainly this is not understood. Do you say to take the Hudson River, it is a good example of a stream they sorely abuse. If the community along there, with their sewage treatment plants sort of unburdened this stream of handling that waste, then it opens up for new industry to come in and use the stream for disposal of its waste.

I do not think it is understood at all, sir.

ASSURANCE CONCERNING STANDARDS NEEDED

Coming back to the approval, I still feel, possibly it is the old saying, that the best is the enemy of the good, and maybe we should settle for what is good and not necessarily the best.

I think it is terribly important, Mr. Secretary, that communities and industries be able to rely on standards that have been set following public hearings. I have been told that in some communities and industries, in my own area, I have now been told after they have set standards, that now they have got to put in secondary treatment, although it was not required to maintain the quality of the water.

This of course leads to the understandable apprehension that action such as this having been taken, the antidegredation policy simply means that no one can locate an industry in a community that is discharging anything into those waters if it will in any way downgrade

the quality of the water, even though the water is still acceptable for its classified use.

Our whole program in New York State was based on a classification of streams from the trout waters to the stream that would not be suitable for fishing, for recreation, but for industry use.

I suggest, Mr. Secretary, that this is something that very much needs clarification.

I will yield to the gentleman from New Hampshire.

COST OF CLEAN WATER

Mr. CLEVELAND. I think this dialog is interesting, too, Mr. Secretary. One of the problems that I have noticed during your remarks, when you came before us last week, was you outlined the several major acts that we passed in the last couple of years, and it seems to me every time we pass one of these acts, everyone gets the impression, whether erroneously or not, but they seem to get the impression that, "Boy. this has done it." "Now we are going to have clean waters", and it is all done.

In this connection I think it would be helpful if somewhere along the line somebody put into the record, either now or later on in these hearings, just what the estimated total cost of accomplishing our stated objectives is going to be. I remember when we had our hearings 2 years ago that we were talking about Lake Erie, and of course the estimate of what it is going to cost to clean up Lake Erie ran all over the place, somebody said $5 billion and somebody $20 billion; and they were not hard figures.

Mr. Secretary, do you have an estimate of what it will cost nationwide to accomplish our stated objectives?

Is that figure available? I think it would be a startling figure, but at least it would put this thing in perspective.

Secretary UDALL. Our last study in terms of the present contemplated standards and programs is $8 billion for municipal action—I am not talking about the storm drainage problem—and for industry, $2.6 to $4.6 billion.

Mr. CLEVELAND. This is just a beginning, is it not?

Secretary UDALL. Of course it is just a beginning, because this is really the backlog problem, and installation for expansion of cities and for new industries, of installation of new equipment which industry is moving toward already, and so are the cities. But I think this is a very useful discussion.

INTENT OF WATER QUALITY ACT TO UPGRADE—NOT DOWNGRADE—NATION'S STREAMS

Mr. MCCARTHY. Mr. Secretary, I voted for this, and participated in its shaping, and I certainly, for my part, did not anticipate that this was going to provide for the degradation of streams that were pristine. We were trying to upgrade and not downgrade, and if the impression gets abroad that we are going to backtrack now and permit industry, facing the installation of expensive equipment, go up to some trout stream and locate there, then we are going to be just going backward.

And I read that Business Week story, too, and I am very impressed with what industry is doing. I think, for one reason, they feel that this

committee and the Federal Government and the States are serious about this, and they are not going to permit the degradation of streams.

Now, if we go back a step, as I think this whole approach is, that we are going to retire everything. And I think implicit in the philosophy of this whole approach is that we are not going to stand by and let every trout stream be located into a millstream. I do not think it is vice versa, and I think that somebody who feels that way should state that view.

I think Mr. Waldie has a comment.

"NO DEGRADATION" DOES NOT MEAN CLEANUP OF A CITY'S POLLUTION SO THAT INDUSTRY MAY POLLUTE

Mr. WALDIE. Mr. Secretary, I was a little bit concerned with your answer of your present policy on degradation. I happen to support it as it was announced, but I gathered, in your colloquy with a member of the committee, that you have established a principle that if the Hudson River is using, for purposes of this analogy, percentagewise, 100 percent polluted now, and you stop a city dumping in 10 percent of that 100 percent, that you open up that stream for 10 percent more pollution from industry.

I gathered, what you are saying, that if you stopped raw sewage from flowing into the Hudson from a city, you have thereby cleaned the stream up, say, 10 percent, so you can now permit industry to locate and pollute the stream that 10 percent that you cleared up by preventing the city from polluting it.

I hope that is not the policy, and I hope I misunderstood you.

It seems to me you are not accomplishing anything, except you are substituting for raw sewage industrial pollution. If your policy of preventing degradation of the waters has any meaning, it would seem to me that you do not, by preventing one polluter to open up the ballgame for another polluter to take his position.

Secretary UDALL. Congressman, I was explaining what is in effect the floor problem as far as the water pollution cleanup is concerned. Let me give you the whole picture.

And the point I was trying to make to Congressman McEwen is that most of our rivers and lakes in this country today are badly polluted. If we mount the type of vigorous program that some of the States are getting ready to do, and that we can do with the legislation pending before this committee, what we are going to see is a significant cleanup in terms of the quality of water in this country.

I know this is going to happen. This is the purpose of the whole program. We are going to significantly improve the quality of waters. We are going to clean up estuaries.

The cleanup in all cases will not be 100 percent, because we do not have that good of technology at this point. But it will be a very significant cleanup.

As a result, this policy that we had to decide, with regard to degradation and what the floor is, was this. Were we to interpret this act and to approve standards that would actually give people a license to degrade the waters in any particular areas? We did not think the Congress intended so.

This is the way we interpreted it.

The point I was trying to make to Congressman McEwen is this. Some of industry have said: "Well, what you are saying is that there will be no new industry on the Hudson River, no new industry on this estuary, or on that lake at all." And this is not the effect of it, because most new industries that come on the line today are going to be required by the States, they are going to be required by these standards, to use the very best and most modern equipment available, and this means that the effluent which gets back into a river or lake from these new industries is going to be very small as compared with the type of raw effluents that have been pouring in.

The result is that under this program you can have new industry, and you are still going to have a picture of water quality being significantly improved, so that there is no collision between the two if we carry out your programs in the right way. And it is not an either/or situation. It is a matter of doing our job, of meeting the type of standards that we are talking about and of seeing a very significant and ongoing improvement of the water quality in this country.

Mr. McCarthy. I do not think the public is going to stand by while we try to upgrade these streams, while over here they are downgrading these [indicating].

FEDERAL-STATE COOPERATION IN ESTABLISHMENT OF WATER QUALITY STANDARDS IN CALIFORNIA

Mr. Waldie. May I also add, Mr. Secretary, that in terms of at least the State of California, the establishment of the water quality standards under the act has proceeded precisely as you have outlined, and in addition when areas in California have had disagreement with the standards established by the State—and I represent one such area—the flexibility that you have indicated as desirable in terms of arriving at a decision was provided our area. And we were permitted the opportunity to present to your Department in great detail our objections to the proposal, and I would say at least in terms of California that the act in establishing these water quality standards has been implemented by your Department to the satisfaction of everyone in the State, although the decisions may not be satisfactory, but the opportunity to effect and to persuade has been afforded us in full degree.

Secretary Udall. Congressman Waldie has in his district one of the most serious problems in the whole State of California. It is the type of problem, however, that we do not have all the answers to. We have not developed a solution. We could not decide this. And therefore when it came to this problem we did not approve it or disapprove it. We said let us continue to work with it, and we will try to work out a solution, and then we will decide.

I think this is the only rational commonsense approach for it.

Mr. Waldie. I think so too, and I wanted it for the record.

WASTE OIL FROM SERVICE STATIONS

Mr. McCarthy. Mr. Secretary, returning to the bills before us in the course of the hearings, one of the major problems is oil pollution problems facing the country today. It involves the ordinary run of

the mill gas station. We know this from firsthand in my district, and I had no reason to suspect it is not the same all over the country, as a result of two things:

One, the removal of the excise tax on oil and another a ruling by the Federal Trade Commission, that this used oil in crankcases is now almost worthless. In the old days a man would come around and pick it up and he would take it and can it and sell it again.

Now, what is happening all over the country is that it is just being dumped down the sewers, and it is ending up in great quantities in our streams. Now, as far as I can determine nothing in this legislation would deal with that problem. I am wondering if you are cognizant of this growing problem. It is a real one, and what do you think you might do about it?

Secretary UDALL. Congressman, you have put your finger on what is undoubtedly one of the areas where there is a serious problem to which we do not have a solution.

This was covered in our report incidentally on oil pollution, the report I mentioned earlier. Gasoline service stations you will find mentioned on page 7.

I think the committee might very well want to give this attention and that it may be that appropriate legislation is needed as I have indicated previously to the committee.

I think the big problem that we foresee today in terms of water quality are those we are not doing much about. The whole thrust of this program and the work of this committee the last 3 years has been toward municipal and industrial pollution, improving the treatment works. The two sources of pollution that are today doing the most damage and are going to do the most damage in the future, come from first the runoff in urban areas. Of course if a service station attendant puts oil in the drain and this drain runs out the next rainstorm, the oil runs out. The runoff of merely man's waste, the things we drop on the streets, the rubber that is burned and all of these things—we found when we made our Potomac River study that here is a source of pollution that we presently are not equipped to do anything about.

Now, part of this is simply maybe changing our ways of doing certain things, not littering as much as we do.

The other source is agricultural pollution of the fertilizers that come off agricultural lands.

Secretary Freeman is making a study of this right now. It was directed by the President in his March message on the environment.

Here are two sources of pollution that we have got to control, that we have got to do something about. And of course the service station problem is only one aspect of this.

Mr. MCCARTHY. Yes; but this is an Oil Pollution Act. It seems to me that here is one of the biggest problems we have, and we do not even get into it here.

Secretary UDALL. Well, we have identified it in this report as an important problem. Municipalities could regulate this—as to whether Federal regulations would be appropriate, I think the committee might very well look into this. I was one who strongly supported it, and I wish at times Congress would consider more this approach to conservation, because with oil particularly where you could re-refine and

reuse it, this is not only sound conservation in terms of maximizing the use of a natural resource, but it also would avoid the temptation to the service station owner to dump it in the ground or put it in the sewer drain somewhere. And I think we are going to have to have more and more recycling of materials, including oil, and that we ought to encourage this by law, even by incentives rather than discouraging it.

Mr. McCarthy. Well, I think we will get into this in terms of an amendment added to this bill. I agree with you that the industry could do this themselves if they were so disposed, and there is some disposition in the industry. There is a cooperative effort underway in Buffalo with the industry participating to find out what they can do with this. And I have also talked with some officials of the industry who talk in terms of when a truck arrives to deliver gasoline, that it would have a basin under the gasoline tank, and it would automatically pick up that used oil. But apparently this involves the acquiescence of the Justice Department, if we are going to look into that. But I think we should also consider the possibility of adding this to this bill, and I will work on that in an amendment.

Secretary Udall. Congressman, what I really think we need to do with respect to the petroleum industry is to challenge them, and they are very resourceful and they are doing things that can be done. I think if we can do this, we make this a useful resource, rather than something we have got to throw somewhere. You know, we are an enormously wasteful country, when you look at what we do with so many things. The junk automobile is another example. We have really got to reuse this.

And my science adviser, or the head of the Bureau of Mines, a very fine scientist who just resigned, unfortunately, and went back to industry, has written an article on this subject in one of the science magazines that I am sure you would be interested in seeing. This is an example of waste, an example for conservation. Let us figure out a solution where we use this, and do not waste it or throw it on our neighbor and put it in the river or something. That is the real conservation problem.

Mr. Blatnik. No further questions, Mr. Chairman.

Mr. Secretary, we thank you very much for the discussion. We intend to work with your staff people to clarify these different areas and go into much more detail on many of the things that have been raised here this morning.

Mr. Secretary and your associates, we thank you very much for giving us the full morning.

Thank you.

Mr. McCarthy. The hearing is adjourned, pending the call of the chair.

(Whereupon, at 12:02 p.m., the committee adjourned to reconvene subject to the call of the chair.)

APPENDIX

STATEMENT OF REPRESENTATIVE PATSY T. MINK OF HAWAII

Mr. Chairman and Members of the Committee on Public Waters: I wish to offer my support for the bills now pending before this subcommittee which will extend and improve the methods of controling oil pollution of our harbors, lakes, rivers and other waterways. We in Hawaii have recently come face-to-face with the hardships of this problem and we realize fully that existing controls to prevent this damage are outdated, outmoded and non-workable in this age of increased emphasis on trade between nations.

The story of the unexpected oil slick which darkened the picturesque white surf on Waikiki Beach in Hawaii was read by millions of persons around the world in their daily newspapers in recent weeks. The beach that represents the carefree vacation site for so many persons suddenly turned into a strip of gummy-polluted water. Surfers who took their boards out to catch the high water found they had no control over their actions. Swimmers came to the surface covered with an oil solution.

Admittedly, it was a public health hazard, but also, the mere mention of oil on Waikiki Beach cost my State countless tourists and will ultimately be felt in loss of income from our major industry. It is, therefore, a matter of major concern for Hawaii.

We know that many transport and freight vessels recognize the provisions of the "International Convention for Prevention of Pollution of the Sea by Oil, 1954", which generally prohibits the discharging of fuels within a 50-mile area of a shore, but many others from countries which are not signatories to this convention do not now observe these rules. The present Oil Pollution Control Act of 1924 provides for penalties for any willful or grossly negligent discharge of oil within the territorial limits of the U.S., a distance of only three miles from beaches such as Waikiki.

S. 2760, already adopted by the Senate, would repeal the 1924 Oil Pollution Act and would delete the reference to "grossly negligent" or "willful" now found in the definition of "discharge" in the 1924 Act. This would eliminate the largest escape clause for persons who do cause pollution and it would bring all persons who discharge oil into navigable waters under the scrutiny of an investigation.

The bill also expands the coverage of the Act to shore installations which are located in or adjacent to the navigable waters of the U.S. It would make it unlawful to discharge or permit the discharge of oil into or upon the navigable waters of the U.S. except in cases of an emergency imperiling life or property or in case of unavoidable accident, collision, or stranding or except as permitted by regulations prescribed by the Secretary of Interior.

Both vessel and shore installation owners and operators would be required by the bill to remove discharged oil from the navigable waters of the U.S. or pay the cleanup costs in all cases except where the discharge is due to an Act of God.

The Secretary of Interior would also be authorized by the bill to take steps either directly or by contract to remove the discharged matter from the navigable waters of the U.S. or adjoining shoreline whenever the discharger fails to act for any reason and to recover the cost of the cleanup from the discharger. The owner or operator in the case of a vessel could not limit the recovery of the cost to the value of the vessel and its cargo.

I must agree with the Secretary of the Interior that H.R. 15906 expands even further the controls available to prevent oil pollution. In addition to key control features of S. 2760, this bill would extend the prohibition against oil pollution in the navigable waters of the U.S. to the Contiguous Zone, the 9-mile strip of

ocean beyond our territorial waters—thus, bringing to 12 miles the protected zone where it would be illegal to discharge oil which may wash ashore.

This extension of the ban on mixing oil with water in the 12-mile zone is only a first step. Actually I, and many of those charged with policing this problem in the Federal Water Pollution Control Administration, would like to see the restrictions extended to the Continental Shelf, and about 50 miles offshore from Hawaii. However, I am willing to take this nine-mile extension as the first step.

There has been a preliminary investigation of the oil slick at Waikiki by the U.S. Coast Guard. There has been much speculation as to what happened and the most popular theory is that a vessel had taken on sea water in its fuel tanks as added ballast. Before entering the limited depth of a navigational channel into Honolulu or Pearl Harbor, it is believed that the ship's captain issued an order to offload some of the water ballast, and with it apparently went some of the Bunker C fuel oil.

I am informed that conceivably, this could have occurred beyond the 12-mile prohibition in H.R. 15906, and the oil slick could still have drifted into Waikiki Beach. However, engineers who have studied this condition believe it is less likely that oil discharged beyond 12 miles would be carried by strong winds to a shore. It is for this reason that the prohibition against this discharge of oil should cover the 12-mile distance, rather than the three miles as stated in S. 2760.

I was pleased to learn that the Federal Water Pollution Control Administration has awarded a contract and believes that it will soon accept delivery on a computer system of "tagging" oil pollution to the vessel or container from which it was discharged. This will undoubtedly go far in tightening the control of this pollution.

May I also urge this committee to include in the legislation an authorization for appropriations to permit the Department of the Interior to proceed immediately in eliminating the pollution as a health hazard. All the bills provide that the offender be charged with this cost, but until he is located, the Department of the Interior should be allowed to carry out the necessary removal activities. Thank you.

STATEMENT OF CONGRESSMAN BEN B. BLACKBURN

(Subject: *We must keep moving forward in the battle against water pollution.*)

It is no exaggeration to say that today the public is aware of the manifold aspects of the problem of pollution of the Nation's water supply.

Since 1948 the Federal Government has taken an ever increasing part in the effort to prevent, abate and control this dangerous condition.

Although the States have primary responsibility in this area there are many ways by which the Congress has and must continue to foster Federal participation.

This committee has before it numerous proposals to extend and strengthen the national water pollution program.

All of these proposals have some degree of merit, I propose to address myself to several which I believe to be of utmost importance to the health and welfare of America as they may result in the protection and improvement of the quality of its most important natural resource.

America is many times blessed by having within its boundaries thousands of beautiful lakes, of varying size, natural and man-made.

They range from small farm ponds to the magnificent Great Lakes, and include the many splendid reservoirs, the works of man.

They serve many purposes. They provide a place to swim, to dive, fish in and boat upon. Camping and hunting along their shores bring joy to many thousands. Reservoirs created by dams serve to restrain flood waters to generate electric power, store water to be released later to benefit municipal and industrial water supply and navigation. Many of them support a variety of fish and other aquatic life and their environs furnish abode for many forms of wildlife and waterfowl as well as a pleasant environment for humans.

It is only now being fully comprehended that America is in a fair way to losing many of these valuable benefits.

Lakes are subject to the same mistreatment as the water flowing in the Nation's rivers. The streams that feed these bodies of water are depositing their increasing loads of pollutants in them where they accumulate.

There is little or no current, their capacity for regeneration by oxidation is more limited than that of flowing water. Sanitary and industrial waste matter is hastening the natural process of eutrophication in many of them. Noxious aquatic organisms are increasingly becoming a deterrent to enjoyment.

Some of our largest lakes have been called dying lakes—such as Lake Erie. Others are filling up with decaying vegetation, fish are dying, waterfowl are losing their natural habitat. The entire ecology is in transition and unless spartan measures are undertaken, and soon, our Nation stands to lose a valuable resource.

I strongly advocate that the Congress espouse an energetic program of resuscitation.

The Secretary of the Interior should be authorized to direct, and implement by grant or contract, pilot studies and demonstration projects to develop and improve methods of prevention, removal and control of pollution in lakes, and elimination or control of undesirable nutrients and vegetation.

Pilot programs should be undertaken by arrangement with State, interstate, municipal or other public agencies at locales where there is access by the general public.

All agencies concerned with the natural environment should be consulted. These would include the public health, fish and wildlife and water resource agencies.

Such activity should be undertaken immediately and might well be financed with Federal funds up to 90% of the cost to ensure early action.

State and local participants should, of course, provide assurances that the improved quality of the lake environment would be maintained.

Experience gained by these pilot programs can be utilized and applied elsewhere.

A start for this program should be provided to the extent of at least $5 million.

I feel it encumbent upon me to make clear my personal conviction that the role of the federal government should be one of research and development and not enforcement. The need for clarification of my position has arisen as a result of a statement issued by the Secretary of the Interior dated February 8, 1968.

The Secretary of the Interior, in that statement, has asserted a degree of control over local, state, and water control which, in my opinion, goes far beyond the authority granted to him by the Congress.

In his statement, the Secretary has issued a regulation which would require any expansion of industrial discharge, or municipal sewage to be first approved by not only the State Water Control Board which has rightfully primary jurisdiction over such discussions, but also approval from the Secretary of the Interior.

It was never intended by the Congress that the Secretary of the Interior should have such broad ranging authority as to abrogate unto himself the final and absolute control over the uses of waterways throughout the nation.

This unwarranted assumption of power by the Secretary of the Interior, poses a real and dangerous threat to the expansion of industry and the essential uses by municipalities and local governments of the streams within the various states. To require an additional approval from Washington, after industrial and local authorities have secured approval from state water control boards is to create an additional impediment to growth without any corresponding benefit.

The state of Georgia has been recognized as providing valuable leadership among the states in the development and implementation of water purity standards. Other states recognizing the hazards to our streams and lakes are likewise making great strides in policing the usages of their streams. Those persons who give direction and leadership within their state water control agencies are just as competent and sincere as the minions surrounding the Secretary of Interior and I will trust their judgment.

The Torrey Canyon disaster off the coast of England was only the most spectacular of a continuing series of such incidents which have occurred. These oil spills, accidental as well as willful, are extremely damaging, both esthetically and economically, and they must not be allowed to continue.

The Secretary of the Interior and the Secretary of the Department of Transportation, in which the United States Coast Guard is located, should be empowered to draft strict regulations for vessels carrying oil on the high seas.

The custom of discharging oil into the sea from vessels should be absolutely prohibited within a distance of not less than 12 miles from shore. Should this be done the owners of any discharging vessel should be held responsible for

cleaning the beaches and for eliminating the oil patches in the water for which they are responsible. They should be held liable for the costs of such cleanup.

Unfortunately, the practice of emptying old oil and bilge tanks close in shore has become entirely too common. The result has been that beaches up and down the coastlines of the United States have been encountering ever more frequently of late unsightly patches of oil besmirching the beaches, entangling waterfowl, and adversely affecting all forms of aquatic life.

This must stop. The best way to do it is to provide for strict regulations and rigid enforcement.

Oil pollution is not the only kind resulting from the operation of shipping. There is sanitary waste from ships and even small boats. There are many waterfront industries, wharves, docks, warehouses and other buildings and structures, where man's activities result in waste products being deposited in the ocean, estuarine waters, and rivers. These are responsible for a great volume of pollutants in many forms and should be held responsible to the same extent

In these days of lightning fast development in all of the branches of science and technology new products are being manufactured, new substances are being formed, particularly in the chemical world. A fair proportion of most of these find their way into the Nation's watercourses where they do not belong in nature. Little is known of the effects of these many substances on man, on water quality and on property. Basic data is completely lacking on many of them, methods of treating them are not known to be completely efficient, and the long term effect is completely unknown.

It is essential that the research program of the Federal Water Pollution Control Administration be continued and greatly strengthened. This may be done by in house research and by contract.

Such a program should be directed at determining the characteristics and effects of pollutants and methods must be developed for elimination of those found to be deleterious to man's health and welfare.

As soon as possible knowledge developed in the laboratory should be tried in the field, through the pilot demonstration program, which again exists in current authority but should be greatly strengthened and expanded. Direct application to the benefit of the national water pollution control program of the Nation would then follow. A great deal remains to be done in this respect.

An area in which a serious weakness is developing in the war against water pollution is the lack of trained personnel. This is true of engineers needed to design treatment plants and sewer systems, and of the technical talent needed to operate the plants when constructed.

It is vitally necessary that this situation be corrected.

At the present time there is a program in operation at the field laboratory in Cincinnati which provides a training course for technical personnel. I strongly urge that this program be expanded. Authority for a definitely larger program should be included in any legislation on water pollution control. This institution should provide training to state water pollution control personnel in order for them to carry out their functions more effectively.

Similarly the program now in existence granting fellowships at various institutions in the field of sanitary engineering should be vastly expanded and made attractive enough to induce young engineering students in greater numbers to specialize in the field. This could be done by granting scholarships as is being done in many fields throughout Federal programs.

The vast construction program, to say nothing of the research and demonstration programs which are important elements in the Nation's efforts to achieve some degree of sanity in its treatment of the physical environment, will require, for many years, an infinitely increased number of trained personnel.

The control of water pollution involves more than just money. Without the manpower to carry out programs and projects to appropriate more money would be a waste of time.

Philadelphia Water Commissioner Samuel Baxter testified two years ago before Congress when he was president of the American Water Works Association that he seriously doubted whether we had enough depth of technical talent to extract full benefit from spending on the scale then being proposed. The engineering manpower situation hasn't changed for the better since.

A spokesman for the Water Pollution Control Federation says also that plant operators are very scarce in many areas, probably because of poverty level wages,

but the supply is better in some areas where wages are better. Overall there is a stringency prevailing of truly trained technicians. In too many instances untrained persons are assigned the task of operating the plants, or the plants cannot be operated efficiently or at full capacity for the lack of manpower. Boston's new $20 million treatment plant is suffering in that very manner.

Adequate funds should be provided for an expanded program of training personnel at all levels of expertise.

Two-thirds of the streams of Appalachia have been proved to be grossly polluted. A principal cause of this is acid drainage from coal mines which are distributed throughout this unfortunate region. Many strip mining operations lie bare, open and abandoned with a constant drainage into nearby streams. A large number of underground mines have been closed down, their entrances imperfectly sealed. These circumstances result in a constant flow of sulfurous, acid substances to the many streams and rivers flowing to the Atlantic and the Gulf of Mexico.

These same streams and rivers, reinforced by the sanitary wastes. wood pulp and paper mill wastes of the region provide a major portion of the municipal and industrial water supplies for the cities of the seaboard and Gulf areas.

The deteriorated condition of the waters flowing initially through the coal fields require costly and complex purification before they can be rendered potable or suitable for industrial use.

Seals at many long deserted mines have deteriorated and crumbled in many hundreds of instances, permitting free flow of these corrosive substances.

I believe that a pilot demonstration program for solving this problem is clearly indicated.

Estuaries and estuarine areas found at the termini of our many rivers and streams are zones of great productivity. They provide the essential spawning and feeding grounds for the many forms of aquatic life that are the foundation for the harvestable resources of the sea.

They form the irreplaceable habitat for a vast array of birds. It is the source of many foods such as shrimp, crab, clams and oysters.

There where the fresh water and the salt water intermingle is where beauty, recreation, and great economic activity can be found. Unfortunately, the considerable natural resources of these areas are being threatened even as the other navigable waters of the Nation. The accumulated wastes of upstream cities, farms, industries, and other activities are concentrated here. Civilization, modern version, has spread over the sands, salt marshes, and shallow waters of our shorelines. Many estuaries have already been ruined, many oyster beds have been closed because the water is so polluted that it is unsafe to eat oysters taken from them.

Wetlands are constantly being lost to the land speculator and real estate developer.

Traditionally, Americans have looked upon wetlands as wasteland. Thus, it has become customary to treat them as dumps. Factories, homes, hotels, all find cosatal marshes and tidewater flats handy repositories for their garbage and other wastes.

Marine life which normally proliferates within the delicately balanced estuarine environment, and which provides the nourishment for a large proportion of the economically valuable products of the fishing industry is being destroyed. Recreational opportunities are being lost due to deterioration of the environment.

It is highly important that this situation be corrected before the valuable natural resource is destroyed.

There should be an immediate survey and study of the potentials of the resources of estuarine areas. The end result should be development of means to prevent, abate and control the pollution now taking place almost without restraint. It may be that some estuarine areas should be set aside and preserved in their primitive natural state, but in any event they are too valuable to be allowed to become extinct as productive areas.

Federal, State and local agencies should cooperate in an intensive effort to preserve them. Ample authority and funds should be provided for the Federal Government to organize and coordinate a broadbased investigation of methods to combat the present situation.

If any of the language in the bills which I have introduced could be construed to extend the authority of the Secretary of the Interior, then, I request that the Committee modify the language of my bills to correct this situation.

I have mentioned only some of what I consider to be important aspects of the war against pollution of our greatest single natural resourse. There are others, of course, covered by the numerous bills now before this committee. I trust to the good judgment of the Committee to approve legislation which will continue unabated the battle which is so vital to the safety and welfare of our Nation.

STATEMENT BY THE HONORABLE ODIN LANGEN OF MINNESOTA

Mr. Chairman, I am most pleased that the Committee on Public Works is directing attention to the growing threat to one of this nation's greatest natural resources, our lakes. We in Minnesota are particularly aware of the benefits derived from attractive and clean lakes, since we have so many of them.

The scenic surrounding and satisfying recreational and relaxing activities associated with lakes will be in ever greater demand as our population continues to grow. It is quite a sight to see the cars stream out of our cities at the end of the week, all carrying families to a favorite lake-shore spot that promises fresh, clean air, and pure water for swimming, boating, fishing and the many other activities connected with our lakes.

Unfortunately, the presence of man in ever-increasing numbers has aggravated a problem that threatens the future of these great resources. This is why many of us introduced legislation to amend the Federal Water Pollution Control Act to authorize a comprehensive planning program in lake pollution prevention and control. There are many complexities related to this problem which make it necessary that we approach it on a pilot program basis. In this manner we could determine the extent to which proper control and abatement of water pollution can be accomplished through local, State and Federal cooperation.

The man-made pollution of our lakes is accelerating the normal aging process of such bodies of water. Lake Erie is a conspicuous example, but our smaller lakes, some in Minnesota, also are deteriorating at a rapid pace. Rank vegetation chokes much of the lake beginning in July, and restricts fishing, boating, swimming and other recreational activities. Subsequently the mass of vegetation begins to rot, creating very bad odor problems, and lowering the oxygen level so that fish frequently die. There is nothing so depressing as to see a lake in late July and August, choked with weeds and a green slime floating on the surface of the water.

These conditions might have developed anyway, but would have taken thousands of years under the natural aging process. But man has accelerated this aging through pollution. It comes from many sources, such as septic tanks of the shoreline cottages, sewage from cities and towns situated on the watershed, pollution from livestock on farms, and draining from fertilized farm lands. Siltation from erosion within the drainage area further complicates the problem. Unfortunately, a lake has relatively little flushing action, and has much less capacity to dilute introduced wastes than does a flowing stream.

Greatly expanded Federal, State and local research and demonstration programs are needed to develop practical and effective methods for improving the quality of lake waters. The problem must be attacked on two fronts simultaneously. First, we must find ways to remove or dissipate the existing nutrients. And then we must reduce the nutrients entering the lake.

The pilot program suggested in my bill and others will provide the basis for solving the over-all pollution problem that is threatening the usefulness of the thousands of lakes in America. I respectfully urge the Committee to report favorably on a bill to control lake pollution. Not only would it be an investment in preserving these important facilities for future generations, but would protect the future economic well-being of countless communities throughout the Nation where they depend on these lakes for a living.

STATEMENT OF HON. CLAUDE PEPPER, A MEMBER OF CONGRESS FROM THE STATE OF FLORIDA

Mr. Chairman and Members of the Committee, like most other Americans, I am deeply concerned about our water resources. In many parts of the United States, the grim problem of water pollution and shortages is becoming one of our most critical political issues.

Humorist Mark Twain once said, "Water, if taken in moderation, will not hurt anyone." But if Mark Twain were here today I doubt that he would find anything humorous in the water problems we face—and neither do I. That is one of the reasons that on March 25, 1968 I introduced H.R. 16163 to improve pollution legislation.

Of all the resources known to man, it seems to me that the most abused is water. So long as our rivers, lakes, streams, beaches, estuaries and waterfronts could cope with the ever-increasing loads of pollution, chemicals, waste, and oil, we were content to let them struggle along. But now suddenly, the load is too much. We can see, and often smell, the evidence all around us.

At times the evidence is shocking. For example, the break-up of the tanker *Ocean Eagle* in the bay at San Juan on March 3rd dramatically focused attention on the widespread damage that an oil slick can cause to the beaches in a resort area. But more important, this costly disaster in Puerto Rico still stands as a grim reminder to Congress that we have before us an urgent item of unfinished business. We must up-date our out-moded pollution laws, and we must do it now.

It is for this reason that I urge support for my bill to amend the Federal Pollution Control Act so as to enable our authorities to more effectively cope with this serious source of pollution.

According to an article in the March 10 issue of the *New York Times:*

> . . . More than 700 million tons of petroleum and petroleum products move by sea each year. About 420 million tons of this total is crude oil, which is the greatest single source of marine pollution, because refined petroleum products are volatile enough to disappear from the seas in a relatively short time.
>
> The demand for oil will continue to grow and the economics of the industry are producing mammoth 306,000-deadweight-ton tankers that will dwarf the 200,000-ton supertankers now plying the oil routes.
>
> Industry spokesmen, who feel that occasional tanker disasters are as inevitable as aircraft disasters, are concentrating on the problem of preventing spillages and dumpings into the water. A discharge of only 15 tons of oil can cover an area of eight square miles in less than a week.

I think this quote shows how the oil pollution menace will continue to grow as more and larger tankers are built.

The damage caused by oil pollution from the *Ocean Eagle* was not nearly so extensive as that caused about one year ago when the *Torrey Canyon* went down off the coast of England. Great Britain and France claim that damages resulting from the 117,000 tons of crude oil that seeped from the crippled tanker came to more than $16.2 million. The 2½ million gallons of detergent dumped into the sea and on the beaches to help clear away the crude oil were more harmful to marine life than the oil itself. In the aftermath, 50,000 sea birds died from the effects of the oil and the detergents.

The damage from such disasters is not limited to the beaches, resorts, and tourist trade. The pollution also affects marine life, waterfowl, shellfish, and many other living creatures. Once this living resource is destroyed, it may be indeed difficult to restore it.

H.R. 16163 would help fix pollution responsibility, set penalties, provide for inspections, clarify legal tangles, provide for removal of oil pollutants, and include other much needed improvements in the present Federal Water Pollution Control Act. The President, in his recent conservation message to the Congress, strongly urged the passage of effective legislation to deal with the serious problem.

Pollution control is not a local problem; it is worldwide. Health authorities estimate that more than 100 million persons die every year because of water-borne diseases. Think of it—10 million deaths a year from water pollution. If we do not act soon, water pollution may also become a matter of life and death right here in America. In New York City, for example, an epidemic of hepatitis broke out in 1961; it was traced to contaminated shellfish taken from the polluted Raritan Bay.

The costs of water pollution to the Nation are enormous. No accurate tabulation of costs is available, but one recent estimate put the figure at $12 billion annually. And as population and pollution loads increase, these costs are sure to rise.

In concluding my statement I should like to quote from Secretary Udall, who shares with me a growing concern for the invading sickness and pollution that threaten our total environment. These are his words:

> "Today we lead the world in wealth and power, but we also lead in the degradation of human habitat. We have the most cars, and the worst junkyards. We are the most mobile people on earth, and we endure the worst congestion. We produce the most energy, and breathe the foulest air. Our factories pour out the most enticing products, and our rivers carry the heaviest loads of pollution."

Thank you very much.

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D.C., May 10, 1968.

Hon. GEORGE H. FALLON,
Chairman, Committee on Public Works.

DEAR MR. CHAIRMAN: Enclosed is my statement on Water Pollution. I would appreciate it if this statement and the attached letter from the Huron River Watershed Council could be make a part of the printed record of your committee's hearings on Water Pollution which were held the final week in April.

I have discussed this testimony with your staff and apologize for the delay in delivering it to your office.

Sincerely,

MARVIN L. ESCH,
Member of Congress.

STATEMENT BY CONGRESSMAN MARVIN L. ESCH, A MEMBER OF CONGRESS FROM THE STATE OF MICHIGAN

Mr. Chairman, this Committee and this Congress have an opportunity to make a significant contribution to the solution of one of our nation's most long range and serious problems—water pollution. No area is free of this menace and if it remains unattended, the problem will be magnified manyfold. Benjamin Franklin's adage that "a stitch in time saves nine" is certainly appropriate to this problem and that first "stitch" must be taken immediately.

As you are all aware, water pollution is a complicated problem—involving private industrial wastes, city sewage treatment, runoff from agricultural areas, removal of dredging materials and hundreds of other pollution sources. The problems of water pollution are not limited by local, or country, or even state boundaries. There are hundreds of thousands of pollution sources along every river and small lake in the nation.

Clearly the effort to correct this serious situation must involve the coordination and cooperation of all levels of government, private industry and private developers. One of the outstanding coordinating units concerned with water pollution over a widespread area is the Huron River Watershed Council centered in Ann Arbor, Michigan. I would like to bring to the attention of the Members of this Committee the excellent works of this Council and the long range plans for their future development and activities. I commend this approach to the Committe and hope that the legislation which the House will consider in the weeks ahead will encourage the creation of such Councils throughout the nation.

HURON RIVER WATERSHED COUNCIL,
Ann Arbor, Mich., April 15, 1968.

Hon. MARVIN L. ESCH,
U.S. House of Representatives,
Longworth Building, Washington, D.C.

MY DEAR MR. ESCH: Please enter the following at the hearings to be held on Tuesday, Wednesday, and Thursday; April 23, 24 and 25, 1968, on the subject of water pollution. Our remarks refer to the establishment of a program of research and demonstration for the control of pollution in lakes. In particular we refer to S.B. 2760 which has been passed by the Senate and referred to the House Committee on Public Works. In addition our comments refer to H.R. 13312, H.R. 13638 and H.R. 13665 which are identical to the lake pollution control

section of S.B. 2760 and which have also been referred to the Committee on Public Works.

Summary.—The Huron River Watershed Council supports the establishment of a Federal Program of Reserach and Demonstration for the Control of Pollution in Lakes. At a time whent real progress is being made on the control of pollution from large point sources—industry and municipalities—through the development and enforcement of Water Quality Standards, Congress needs to take action to develop programs that deal with lake pollution. Such programs must focus first on stimulating and assisting residents of inland lake communities and local governmental bodies and agencies to undertake cooperative planning and organized activities to bring about broad understanding and constructive local action programs of care, development and utilization of each inland lake as a natural resource and community asset. Secondly, a research program aimed at improving pollution control technology as it applies to lakes needs to be undertaken. Only *after* the Federal Government has been assured that the forces which originally brought about the deterioration of a lake have been eliminated and *after* it has been shown that a local lake community is organized to deal with lake management on long-term basis, should the Federal Government assist in financing specific remedial measures to improve the quality of a lake.

I. THE HURON RIVER WATERSHED COUNCIL

The Huron River Watershed Council is an organization of local governments interested in promoting the wise and orderly use of the Huron River as a natural resource.

The Council was organized in 1965 under Public Act 253 (1964) of the State of Michigan, which provides the legal basis for representative water planning and management agencies. The Council replaced the Huron River Watershed Intergovernmental Committee which was established in 1958.

The Council has served as a model for INTERGOVERNMENTAL COOPERATION and has been cited in many of the national information media, including *The Big Water Fight* by the League of Women Voters Educational Fund and in two filmstrips on Water Management distributed by University Media, Inc.

The Council has given top priority to the development of a demonstration program for the coordination of public and private forces on inland lake and shoreland management.

II. THE PROBLEM IN THE HURON RIVER BASIN

The 353 natural and artificial lakes of the upper Huron River Basin constitute one of the major water resources in the Detroit Metropolitan Area. Totaling nearly 24,000 acres, these lakes comprise about 4 percent of the total area of the Huron River Watershed. The shores and surrounding areas of these lakes are increasingly being used as year-round homesites for people who can commute to work in the Pontiac, Ypsilanti-Ann Arbor, or even the Wayne County areas, on the major new expressways. At the same time, this area of the Huron River Basin has a potential for a wide range of recreational opportunities for the rapidly expanding regional population with more money, leisure time and mobility.

1. Management needs

The increased utilization of inland lakes and shoreland for private homesites and the pressures for more usage for public recreation are creating critical problems. With a few exceptions, most of the suitable lake frontage and shore land has already been developed or is designated for development (platted). Little or no regulation in the past has resulted in parcels of land that are often not large enough to accommodate the dwelling, water-well, septic tank and drain field, automobile parking and reasonable separation from neighboring dwellings. In many cases the natural beauty of the lake and shoreline has been destroyed. Health hazards are a constant threat due to the inadequacy or improper operation of individual waste water disposal systems.

Increased public recreational use has brought new problems to the area. Public recreational use of the lakes and shoreland is not always compatible with the private use of the same areas by local homeowners. At peak use periods there are conflicts for the use of the lake surface between fishermen, swimmers, water skiers, high-speed boaters, skin divers and others. The public shoreland support areas, such as public fishing sites and launching areas, are often unable to handle the large numbers of people wishing to use them.

Overcrowding and undesirable development on the shorelines of inland lakes will eventually lead to lower property values and increased costs of living which can offset the advantages of lakeside living. If the overcrowding and unplanned development is allowed to continue, there are two serious and inevitable consequences.

(*a*) Lakes will become more polluted and some of the extremely slow natural changes detrimental to recreation that take place will be accelerated (eutrophication).

(*b*) Since the lake-areas are located in the "upper" watershed, recreational opportunities downstream will be limited by pollution from the upstream areas.

Like many Natural Resource Problems, the situation in the inland lakes of the Upper Huron River is complex because—

Public and Private property rights are involved.

Local resident and region-wide recreational usage is involved.

Zoning and other regulatory responsibilities are within the jurisdictions of a number of different local governmental units.

There exists a number of property owner organizations with different objectives and levels of effectiveness.

Considerable action and control undertaken today must be justified in terms of future needs.

The establishment of water quality standards, authorized usage, protection of public health and conservation of fish and wildlife involve Local, State and Federal Bureaus, Agencies and Budgets.

2. Focus and rationale

The lack of adequate coordination of public and private forces in dealing with all aspects of inland lake and shoreland problems is the major concern. There has been a tendency to overemphasize the separation of public from private decision-making. Actually, there should probably be a great increase of intermingling of public and private interest, influence and effort. Private decisions should be made within a publicly established framework of goals and objectives while the public decisions must always relate to citizen interests and concerns.

More adequate coordination of both public and private forces must be brought about by *improving communication and utilizing available community and individual capabilities.* Decisions made by the public agencies concerning management and control of inland lakes and shoreland need to be based on a thorough understanding of the specific needs and desires of the citizens as well as on the best available technical information and counsel on water and land use.

Local, regional, state and federal mangement agencies, no matter how specialized their responsibility, need more current and more complete information as a major part of their planning and management effort.

Private citizens, on the other hand, while providing information to the governmental agencies, could utilize information regarding planning proposals and problem analysis as a guide to their own individual decisions and efforts. Like farmers, the homeowners in the lake area have a great deal of individual responsibility for land and water use management decisions. Generally they operate and maintain their own water and sewer systems and are also responsible for the management and upkeep of a fairly large parcel of land.

A sound *strategy and program of coordination and communication* for cooperatively dealing with inland lake problems would complement and enhance the *strategy of regulation and enforcement* now being pursued so vigorously in the federal and state agency programs and even by local zoning boards.

This inland lake management, to be of maximum effectiveness will probably call for cooperative area-wide effort.

III. MAJOR GUIDELINES FOR INLAND LAKE AND SHORELAND IMPROVEMENT PROGRAMS

A. Determine what facts are essential as a foundation for sound understanding and constructive action for the protection and improvement of the lake, the lakeshore and the lakeside community.

B. Determine the nature of the attitudes, degree of concern and the willingness to become involved, of the lake area residents, in regard to the current condition and the future of the lakes and the lakeside communities in the area.

C. Accumulate, evaluate, and organize the relevant information on current problems of inland lake deterioration and alternate solutions to the problems, as

a stimulus and aid to constructive private individual or group effort and meaningful governmental support and action.

D. Create services to assist inland lake communities in *local efforts* to halt the deterioration of the lakes and shorelands and establish a sound program of improvement.

Very truly yours,

JEROME K. FULTON,
Executive Secretary,
Huron River Watershed Council.

It is important, Mr. Chairman, that the Congress in passing legislation take no action to limit the ability of other levels of government to meet their own responsibilities. In this regard, the State of Michigan has recently passed a bond issue to finance a full-scale attack on pollution throughout the State. This approach is based on the assumption that the Federal government would abide by its promises in recent Acts to provide funding and planning assistance.

In November 1966 the Congress provided for State or local prefinancing of the federal share of eligible projects and on this basis, the State of Michigan has, through its bonding proposal, made a full-scale commitment to assume the federal share of projects until federal funds become available at some future point.

This provision has enabled states to make long range plans. It has freed them from the yearly delay and uncertainty involved in the federal budgeting and appropriations processes. It has enabled them to take immediate action on important projects without the delays and possible cutbacks in federal funds during any given year.

The bill before your committee would change this provision and would significantly contract the span and variety within which state and local governments can work to solve their individual pollution problems. At the same time, the bill before the Committee would also exclude from federal coverage all small communities of under 125,000 persons, In fact, it is the small communities that have the scarcest revenue resources to undertake major water treatment systems and, at the same time, it is these communities which are presently most likely to leave their wastes untreated. To exclude them from the coverage of federal programs would be a disasterous mistake and would result in further delay in the nation's efforts to control water pollution.

Another factor to which your Committee should give full consideration is the pollution caused by activities of the federal government itself. Until the government's activities are as example-setting as its rhetoric, there will be little encouragement for local governments and private industry to take action.

One serious example of government created pollution in the Lake Erie area is the disposal of dredging wastes from the industrial docks on the Detroit River and the Rouge River. This dredge material has been dumped into Lake Erie for many years and is contributing greatly to the pollution and eutrophication of that dying lake. Clearly such action must stop and I have worked closely with the Corps of Engineers and the Interior Department in urging alternate disposal of the wastes on dry land. The citizens and communities bordering Lake Erie have expressed their concern about this serious problem and are working hard to find alternative sites for dumping.

This is only one example of government action which results in pollution. Many others exist, and your Committee should give full consideration to ways through which coordination can be attained on the federal government level to halt all such pollution and to bring the federal government up to the standards now being proposed for private industry and communities.

Mr. Chairman, we all recognize water pollution as one of the most serious and pressing problems facing our nation today. If the nation is to be fit for habitation in future generations, we must take action now to halt the killing of our lakes and streams and their vast resources of plant and fish life. If the nation is to maintain pleasant recreational areas, we must take action now to clean up our lakes before the process of eutrophication has made them uninviting. If we are to have fit water for human consumption, we must take action before it is too late. I commend your Committee for its attention to this problem and urge you to take appropriate action to assure future generations of Americans the same vast natural water resources which were given to our generation.

PACIFIC AMERICAN STEAMSHIP ASSOCIATION,
April 29, 1968.

H.R. 14000 (S. 2760)—Amend Federal Water Pollution Control Act

Hon. GEORGE H. FALLON,
Chairman, Committee on Public Works,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: We wish to associate ourselves with the testimony of Ralph E. Casey, President of American Merchant Marine Institute on the above bill given before your Committee on April 24, 1968. This bill is identical to the Senate-passed S. 2760.

We request this letter be placed in the record.

Our views are fully concurred in by Pacific Maritime Association, whose interest lies in the personnel aspects of this bill.

The American Merchant Marine Institute's statement pointed out and we concur, that so long as the Senate Committee Report (S. Report No. 917) on S. 2760 interprets Section 19(b) of the bill to mean that it is a violation of law to discharge or spill oil *regardless of fault*, and since the test of "gross negligence and willful discharge" is being removed in H.R. 14000 by repealing the present law (1924 Oil Pollution Act), there exists in Section 19(b) a serious inequity and ambiguity as to what degree of fault constitutes a violation. *Section 19(b) should be, therefore, amended to clearly provide gross negligence or willful misconduct as the test for a violation.* Alternately, the definition of "discharge" in Section 19(a) could be amended to include gross negligence as part of the definition. This will remove the ambiguity between Section 19(b) and Section 19(c) which latter Section sets up a criminal fine of $2,500.00 for oil spills created by *willful* violation of Section 19(b). It will also clarify the kind and degree of violation for which civil penalties can be levied in Section 19(d). As Section 19(d) now reads, such civil penalties and libels are not assessable for a *willful* violation as in Section 19(c) but for the ambiguously worded violation described in Section 19(b), which as noted above, the Senate Report interprets to be a "without fault" liability.

A further reason for amending Section 19(b) is its impact upon suspension or revocation of Coast Guard licenses for officers aboard a vessel adjudged to be in violation. It would be the height of injustice to authorize Coast Guard in Section 19(g) to revoke a master's or engineer's license for being on duty on a vessel adjudged *without fault* to be in violation. We feel the vulnerability of a licensed officer's livelihood should not rest upon such a remote involvement with the violation.

Finally, we share fully the apprehension of American Merchant Marine Institute that a vessel's ability to limit liability in a pollution situation is circumscribed by the language in Section 19(e) where it restricts limitations only to "acts of God" and specifically removes all other criteria for limitation by the words "notwithstanding any other provision by law". *These words should be deleted.* Limitation of vessel liability in the Admiralty Statutes (Section 197 et seq. of USC 46) is a keystone element encouraging investment of capital in U.S.-flag shipping. To sweep away such limitation by disclaiming it in H.R. 14000 would be a step backward into abyss of economic frustration which already beckons too many U.S. shipowners.

We urge the adoption of the above amendments to H.R. 14000 and S. 2760.

Sincerely yours,

RALPH B. DEWEY, *President.*

DEPARTMENT OF STATE,
Washington, D.C. May 3, 1968.

Hon. GEORGE H. FALLON,
Chairman, Committee on Public Works,
House of Representatives,
Washington, D.C.

DEAR MR. CHAIRMAN: My letter of April 26 reported comments by the British, Danish, Norwegian and Swedish Embassies on behalf of their Governments concerning H.R. 15906 and S. 2760, both bills concerning oil pollution which are now under consideration by your Committee. We have now been informed by the Embassy of the Netherlands that the Netherlands Government shares generally the views of the other four Governments concerning these bills, in particular, their views with respect to unilateral action by the United States on liability for oil pollution in advance of the results of IMCO consideration and the concepts included

in the subject bills of absolute liability and unlimited liability for certain discharges of oil. The Embassy of the Netherlands has asked that these views by conveyed to your Committee.

Sincerely yours,

WILLIAM B. MACOMBER, Jr.,
Assistant Secretary for Congressional Relations.

DEPARTMENT OF STATE,
Washington, D.C., April 23, 1968.

HON. GEORGE H. FALLON,
Chairman, Committee on Public Works,
House of Representatives,
Washington, D.C.

DEAR MR. CHAIRMAN: Enclosed for the information of your Committee are copies of comments on H.R. 15906 and S. 2760 received by the Department of State from the Embassies of Denmark, Norway and Sweden. The British Embassy also made similar comments orally under instructions from the United Kingdom Government. All of the four Governments draw attention to the consideration of liability for oil pollution now taking place internationally in the Intergovernmental Maritime Consultative Organization and three of them comment on the concepts included in the subject bills of absolute liability and unlimited liability for certain discharges of oil.

Sincerely yours,

WILLIAM B. MACOMBER, Jr.,
Assistant Secretary for Congressional Relations.

DANISH EMBASSY, *Washington, D.C., April 22, 1968.*

The Danish Embassy is instructed to express to the United States Government the following points of view concerning the pending U.S. bills HR 15906 and S 2760, known as "Oil and Hazardous Substance Pollution Control Act of 1968".

(1) The effect of the bills would be to impose on shipowners an absolute liability for the total cost of cleaning up pollution caused by spillage of oil from their vessels. In the opinion of the Danish Government such a provision, without possibilities for taking into account special circumstances in the incidents of spillage, would be unusual, if not unparallelled, and would place on shipowners a burden that could be unjustified.

(2) Further the Danish Government finds it particularly unfortunate that the United States Government should be contemplating this step at a time when the whole question of the liability of shipowners for oil pollution is under international consideration and study in IMCO and in CMI. Also, at the meeting of IMCO in November its legal committee endorsed the view that accidents of the same character and their consequences should be governed by the same principles and rules, irrespective of whether they take place on the high seas or in territorial waters. In view of this it is difficult to reconcile this opinion, which the U.S. Delegation presumably shared, with an action that would anticipate the outcome of the IMCO study.

(3) Finally, the Danish Government emphasizing its general opinion that unilateral legislation by any one government on matters of international concern can only cause serious interruption of international shipping practices wishes to submit that the pending U.S. legislation be postponed until the studies presently considered by the above-mentioned international organizations have been concluded and the possibilities for reaching an international agreement have been fully explored.

ROYAL NORWEGIAN EMBASSY,
Washington, D.C., April 22, 1968.

Some of the provisions of H.R. 15906 and S. 2760 have created some concern to the Norwegian Government, especially the provisions concerning the civil liability of shipowners.

It is the understanding of the Norwegian Government that the above-mentioned bills are aiming at imposing on shipowners an absolute liability (with exception only in cases connected with "Acts of God") to the total cost of cleaning up pollution caused by spillage of oil from vessels. This unlimited liability will impose on shipowners a burden that could be considerable.

The Norwegian Government think it is unfortunate that the United States Government should be contemplating unilateral legislation at a time when the whole question of liability of shipowners for oil pollution is under international studies in Inter-Governmental Maritime Consultative Organization. Comité Maritime Internationale is at present carrying out a study concerning oil pollution for IMCO. As IMCO proceeds rapidly in this field, and these problems probably will be clarified within this year, the Norwegian Government hopes that the United States Government do not put into force amendments in its national legislation, until the result of the IMCO study is known.

Norway, with its long coast, does not underestimate the damage which might be caused by oil pollution. However, the Norwegian Government recognize that the answer to this problem lies in unified international rather than in unilateral action.

ROYAL SWEDISH EMBASSY,
Washington, D.C., April 23, 1968.

Having taken note of the Bills in Congress (HR 15906 and S 2760) on water pollution caused by spillage of oil from vessels, the Swedish Government wishes to express the hope that no action will be taken by the United States which might hinder a decision soon on global regulations of the questions now being dealt with in this connection within the IMCO.

The Swedish Government also wishes to draw attention to the current considerations within, i.e., the IMCO concerning liability for oil pollution.

The Swedish Government is anxious to have a solution soon of the above mentioned questions and hopes that this opinion is also shared by the United States.

OIL, CHEMICAL AND ATOMIC WORKERS INTERNATIONAL UNION,
May 20, 1968.

HON. GEORGE H. FALLON,
Chairman, House Committee on Public Works, Rayburn House Office Building, Washington, D.C.

DEAR CONGRESSMAN FALLON: I am submitting for the Nassau County Planning Commission of New York, their statement on water pollution.

They would like for the statement to be made a part of the permanent record of the hearings.

Sincerely yours,

ANTHONY MAZZOCCHI,
Director, Citizenship-Legislative Department.

STATEMENT BY THE NASSAU COUNTY PLANNING COMMISSION

The Nassau County Planning Commission wishes to go on record supporting favorable action by the Public Works Committee in reporting out S. 2760. We address ourselves particularly to Section 19(b) which would make it unlawful, except under certain circumstances, as defined in this section, to discharge oil into the navigable waters of the United States or adjoining shorelines of the United States.

The need for clarifying and strengthening the power to act by the Secretary of the Interior against those vessel owners who wilfully or through negligence pollute the waterways was called for by the 1967 Report to Congress, "Wastes from Watercraft", (Senate Document No. 48, 90th Congress).

The Oil Pollution Act has not been amended since 1924, and yet our United States boat population has grown to well over 8 million to say nothing of the unregistered boats and those which enter daily into the waters around Long Island.

We speak strongly for this bill which has passed the Senate so as to have an effective weapon against further deterioration of the valuable waters both on the north and south shores of Nassau County. The 2½ million people of Long Island alone depend on these waters for recreation, swimming, fishing, sailing, as well as the commercial fisherman, who depend on the continued high quality of the marine environment.

According to a recent survey prepared by John I. Thompson & Co. of Washington, D.C. for the Commission on Marine Science, Engineering & Resources, called "A Perspective of Regional and State Marine Environmental Activities",

over 200,000 members of the New York State labor force "are directly employed in marine environment activities". Statistics such as these are not yet available for Nassau County alone, but there can be little doubt that a subsantial portion of this 200,000 figure are here on Long Island.

The report also points out that local governments have historically been faced with the problems of operating pollution abatement facilities. However, the small units of government cannot deal effectively with the growing threat to pollution of the navigable waters which are under the ultimate jurisdiction of the federal government.

The survey mentioned above further reports that 300 of the 2,258 miles of New York shorelines are polluted to a significant extent.

This federal legislation before your Committee, S. 2907 would be an essential tool to safeguard against the loss of more of our irreplaceable waters. Experience has demonstrated that under the 1924 statute, voluntary compliance by vessel owners has not been satisfactory. Safeguards are written into this bill to protect the boat owner from arbitary standards being set by the Secretary of the Interior, prior to the penalties being levied by the Secretary.

We thank the Committee Chairman, Mr. George Fallon, for the privilege of inserting this statement into the record, and look forward to swift affirmative action by the Committee in reporting favorably to the House.

Respectfully submitted.

FRANKLIN BEAR.

Chairman, Nassau County Planning Commission, Mineola, N.Y.

DELAWARE RIVER BASIN COMMISSION,
May 2, 1968.

Hon. JOHN A. BLATNIK,
Rayburn House Office Building, Washington, D.C.

DEAR CONGRESSMAN BLATNIK: On April 24th, while waiting to testify before your Committee, I listened with interest to testimony presented by the American Petroleum Institute on proposed legislation known as the Oil and Hazardous Substance Pollution Control Act of 1968.

One of the major points made by the API was to the effect that the new authorities that would be given to the Secretary of Interior to control oil pollution should be exclusive and that the oil companies should not be faced with additional regulations imposed by other agencies. A related point, as you will recall, was that the authority of the Secretary should apply only to oil pollution from vessels and should not include shore installations.

I am sympathetic with the logic of the Secretary of Interior having exclusive authority over oil pollution problems emanating from ships. I am also in agreement that there is no need to extend his regulatory authorities directly to shore facilities. If the Secretary were to become involved in regulation of shore facilities it would cause problems in this river basin and elsewhere. As you know, the Delaware River Basin Commission has recently adopted water quality standards that apply to all kinds of pollutants, including oil. Less well-known is the fact that the Commission also carries out a project review function which covers major industrial facilities, the construction or modification of which might have a substantial effect on the water resources of the Delaware River Basin. This project review function covers a very wide range of industrial and public activity including shore facilities relating to the petroleum industry, and it is focused on the protection of other water resources values against possible incompatible effects. When the Commission reviews a proposed project it looks at it from the point of view of such values as protecting ground water recharge areas, preventing flood plain encroachments, protecting wildlife refuges, as well as possible effects on water quality. It is important to us that petroleum refineries and other shore facilities associated with the petroleum industry remain subject to this review authority by the Commission along with other industrial and municipal activities affecting water resources.

Accordingly, I would like to urge your Committee to consider these aspects in the final version of this proposed legislation. If it is imperative that the authority be extended to shore installations as well, then I would urge that the Secretary's prerogatives not be made exclusive. If this is not done, then we face the likelihood that the petroleum industry would use this new legislation as a basis for

claiming exemption from the project review and water quality control authorities already established by this Commission for the Delaware Basin. This would be a very unfavorable consequence.

If I can provide any further information or extend any of the points in this letter I will be glad to do so. Thank you for your consideration.

Sincerely,

JAMES F. WRIGHT.

STATEMENT SUBMITTED IN BEHALF OF VARIOUS DREDGING COMPANIES AND ASSOCIATIONS

S. 2760

Section 3 of this bill relating to oil pollution requires clarification. The new Section 19 of the Water Pollution Control Act, as passed by the Senate, would in effect prohibit dredging operations in connection with projects for the improvement of navigable waters or construction of public works authorized by Acts of Congress.

Senate Report No. 917, which accompanied the bill, recognized the necessity of maintaining the Nation's waterways for economic growth and national security. The Senate Public Works Committee Report also indicated that since "dredging involves oil which was previously discharged", this subject should be treated separately. Thus, it would appear that the Senate did not intend for dredge spoil to be subject to Subsection 19(b) or for dredging operations to be subject to the criminal or civil penalties set forth in Subsections 19(c), 19(d), and 19(e).

Definition of oil

The problem is created by the term "oil" as defined by Subsection 19(a)(1). The use of the phrase "oil mixed with other matter" was apparently intended to control "waste materials discharged from shore installations [which] contain various quantities of oil mixed in with the material". But the bill as reported out of the committee failed to distinguish, by definition, "oil mixed with dredge materials" from "oil mixed with waste materials discharged by shore installations".

This deficiency in the Senate bill can be rectified by amending Subsection 19(a)(1) to read:

"(1) 'oil' means oil of any kind or in any form, [other than dredge spoil,] including but not limited to, fuel oil, sludge, oil refuse, and oil mixed with other [waste] material".

The intent of the Senate amendments to the Water Pollution Control Act, as stated in Report No. 917, was "to provide an effective deterrent against oil spills whether these spills emanate from a vessel or from a shore installation". The Senate recognized that the primary source of oil pollution is caused by oil spillage "during the transportation of oil" and oil discharged from various shore facilities such as "storage tanks, petroleum, industrial plants, and pipelines".

There was no apparent intention to prohibit dredging operations or to interfere with or impair public projects necessary to maintain the navigable waters of the United States to to prevent industry from maintaining or improving their dock facilities. If dredging operations were to be prohibited, restricted or curtailed, the economic consequences to the country would be catastrophic. Trade, commerce and industry in the United States would be paralyzed.

Dredging Abates Pollution

It is important for this committee to realize that dredging is a tool for abatement of pollution. It is not a cause or source of pollution. There is no oil spillage during the dredging process, except possibly a minor exudence from existing sedimentation in the water being dredged. Dredging is the only available means for removing polluted materials from the bottom of lakes, rivers, and harbors.

Much has been said about dredging and dredge disposal in connection with water pollution. But, there is no competent evidence to support the presumption that dredging operations adversely affect the quality of water. Tests conducted by the Government also show that after a period of time polluted material deposited in the Great Lakes disposal areas are no longer polluted and that fauna is healthier and appears to be more thriving than in adjacent lake bottoms.[1]

---

[1] See testimony Gen. Wm. F. Cassidy, Chief of Engineers, before the Senate Appropriations Subcommittee on Public Works (1968) relating to "Pollution Tests Near Dredge Disposal Areas."

Dredging reduces pollution. The dredging process adds oxygen to the polluted materials by exposing the materials through agitation thereby enabling nature to dissolve and purify the materials. Any effort to discourage or lessen dredging will not only impede pollution abatement but will stifle the economic growth and development of inland ports.

Whatever effect the dredging process may have on sedimentation or pollution, by spillage, leakage or dumping of dredged materials, it is so infinitesimal that it is incapable of being measured. On the other hand, the benefits to be derived from dredging are so great and the damages so slight, if any, that the consequences of not dredging completed overwhelms any other consideration.

Subsection 19 Would Make It Unlawful to Dredge

Under a literal interpretation of Subsection 19(b), the Secretary of Interior is given the power, for example, to abolish or prohibit the use of authorized dumping areas in the Great Lakes, established under the provisions of the Act of March 3, 1905, [33 U.S.C. 419], for maintenance dredge spoil.

The Chief of Engineers recently testified, before the Senate Appropriations Subcommittee on Public Works, that the costs of alternate methods of disposal in the Great Lakes "would be from three to five times the present costs". But, actually this is only one standard for measurement. The overall impact would be much greater since in many instances there is no way to dispose of dredged materials other than by dumping them in the authorized lake disposal areas. Thus, if this bill was passed by the House, in its present form, it will be impossible in many cases to maintain the navigable waterways or harbors of the Great Lakes or elsewhere.

The Secretary of Interior would also have the implied power, under Subsection 19(b), to shut down dredging operations whenever there was a trace of oil in the water around the dredging plant or equipment even though the discharge was harmless. The contractor would always be confronted with the burden of proving that his operations were not the cause of the discharge before he could continue his work. The cost of doing business under these conditions would become prohibitive.

Present Critical Situation

At the present time private dredging work in the Great Lakes and other areas has, in effect, been stopped or shutdown because the Federal Water Pollution Control Administration has failed or refused to agree to the issuance of permits by the Corps of Engineers. As a result, railroads, steamship lines, oil companies, steel firms, and other large industrial concerns have been unable to maintain their dock facilities for loading and unloading cargo. This condition threatens to unduly interfere with the economic development of inland ports. The situation is critical now. If this bill goes through, without excluding dredge spoil or dredging operations, all dredging work would be seriously jeopardized.

Subsection 19(k)

Subsection 19(k) merely contributes to the present chaotic situation. Any further regulation of dredge spoil or dredging operations should be deferred until the results of the Pilot Study authorized by Congress last year are available. This subsection should be deleted if the definition of "oil" is changed as hereinbefore suggested.

Existing Legislation

There is already an overabundance of pollution legislation. As a result of the hodgepodge of such legislation, confusion is rampant, no one really knows what effect if any most of this legislation will have on eliminating or reducing pollution, millions of dollars are being spent with no assurance of any reasonable benefits; and at the present time an administrative paralysis has set in because of the overlapping and conflicting responsibilities and duties between responsible federal agencies. Time should be allowed for full implementation of existing legislation before passing new legislation.

The lack of expertise in the field of pollution is best illustrated by a recent article in Time Magazine [March 29, 1968] dealing with the Torrey Canyon disaster. This article stated:

"Resorting to emergency techniques much the same as those used recently in Puerto Rico, British cleanup squads sprayed detergents along the coast of Cornwall after the tanker Torrey Canyon went aground last year. Scientists now report that the detergents did more damage to marine life than did the oil.

After months of study, Plymouth Laboratory Director J. E. Smith and his colleagues calculated that thousands of sea birds, died from being coated with oil or from swallowing it. But except for the rosy-footed summer tourist, few other shore or sea creatures were seriously bothered by the oil. The detergents, however, killed a significant amount of sea life and seriously upset the ecology in many coastal areas. * * *" [2]

This study bears our Senator Muskie's remark during the 1967 Water Pollution Hearings, when he said:

"* * * the committee must give cognizance to the need for research into methods of removal of oil * * * while at the same time not using techniques which secure the malady but kill the patient."

Oil Pollution Act of 1924

The point was made in the Senate Hearings "that the Oil Pollution Act was made enforceable by a word change in the Senate passed definition of the word "discharge". Therefore, S. 2760 is also "designed to correct that fault". This Committee should scrutinize the proposed revisions before abolishing the Oil Pollution Act of 1924, as amended [33 U.S.C. § 432–434].

The Secretary of Interior's Report to the President, February 1968, states that the ommission of shore-based facilities from the 1966 Amendment to the Oil Pollution Act is "critically significant". If this is so, the ommission can be easily cured by amending the Act to add "shore installations" as defined by S. 2760.

However, the Secretary of Interior's recommendation to delete the "grossly negligent or willful" criterion of the Act is a much graver matter. The argument made is that the present statute is difficult to enforce. This may or may not be the case. But, the fact is that the Department of Justice, based on testimony set forth in the Senate Hearings on Water Pollution (1967), has not attempted to prosecute any cases under the 1966 Amendment to the Act. Thus, there have been no court cases on this question. Obviously any prosecutor would like to have his job made as easy as possible. But, here we are dealing with a federal penal statute that is no longer confined to "any vessel using oil as fuel for the generation of propulsion power, or any vessel carrying or having oil thereon in excess of that necessary for its lubricating requirements", as provided for in the original Oil Pollution Act of 1924 [33 U.S.C. 433]. The 1966 Amendment changed the Act to apply to "any boat or vessel" upon the navigable waters of the United States.

If the "grossly negligent or willful" criteria is deleted any owner or operator, for example, of an outboard motor boat using the navigable waters of the United States would be subject, upon entering into such water, to an automatic conviction for committing a federal felony under Subsection 19(c), or at the very least face being convicted of a federal misdemeanor under Subsection 19(d) of S. 2760. This bill provides a means for wholesale convictions of all citizens or business entities using the waterways regardless of criminal culpability. The stated penalties are exceedly harsh [up to a year in prison]. To impose such penalties as provided for in Subsection 19, without the "grossly negligent or willful", criteria would be unconscionable.

With respect to the alleged difficulty of enforcing the existing legislation, it is interesting to note that the Secretary of Interior has still not promulgated or issued regulations under the 1966 Amendment [33 U.S.C. 433(c)] relative to permissible quantities of discharge of oil from boats or vessels, or relating to the removal or cost of removal of oil from the navigable waters or the adjoining shorelines of the United States. This may explain the reason for the alleged difficulties encountered by the Government in enforcing the 1966 Amendment to the Oil Pollution Act of 1924.

S. 2760 as presently written, when considered together with the Refuse Act of 1899 [33 U.S.C. 407] as judicially interpreted, will make it unlawful to drop anything but "pure water" into a river or lake which are part of the navigable waterways of the United States. This would be true even though the discharge was harmless or had no deleterious effect on the waterways.

Refuse Act of 1899

This Act made it unlawful for any ship, barge, or other floating craft of any kind, or any shore installation to discharge into the navigable water of the

[2] *Torrey Canyon Pollution and Marine Life*, a report by the Plymouth Laboratory of the Marine Biological Association of the United Kingdom, edited by J. E. Smith, Cambridge University Press [1968].

United States, or any of its tributaries, any refuse matter. The U.S. Supreme Court in *United States* v. *Standard Oil Co.*, 384 U.S. 224, 16 L ed 2d 492, 86 S. Ct. 1427 (1965), opinion delivered by Mr. Justice Douglas, broadly and liberally construed the term "refuse" to include "oil" of any kind whether waste or useful, and to encompass "all foreign substances and pollutants", apart from those "flowing from streets and sewers."

The Department of Justice, during 1967 Hearings on Water Pollution by the Senate Public Works Committee, acknowledged that "vessel-caused oil pollutions can be prosecuted under that act", based on the aforesaid Supreme Court decision. But, they contended that this was not a "complete solution" since the violator was not obligated to clear up his spill.

The obvious answer to this contention is for the Department of Justice, in appropriate cases, to file an action under the Oil Pollution Act of 1924, as amended to clean up the spillage. The Act, as amended, should be subject to judicial interpretation prior to being repealed by Congress merely because of an untested belief that it may be difficult to enforce.

Certainly the Senate bill in its present form would not provide a "complete solution" relative to enforcement of the Act. Not unless mass conviction of all users of the waterways would satisfy this requirement. The proposed Act, as written, would be impossible to police or enforce since anyone using the waterways would technically be guilty of violating its provisions.

Recommendation

A common sense approach is required. The answer is simple. If the "grossly negligent or willful" criteria is to be eliminated then it is necessary to revert to the scope of vessels used in the Oil Pollution Act of 1924, prior to the 1966 Amendment, or to vessels carrying oil as cargo.

The above modification to the Oil Pollution Act of 1924, as amended, [33 U.S.C 433] together with the insertion of the term "shore installations" would cover the primary sources of polution for which S. 2760 was intended to proscribe.

H.R. 14000

Should this Committee decide to recommend the repeal of the Oil Pollution Act of 1924 rather than amend existing legislation as proposed above, then it is suggested that the following language of Subsection 19(k) of H.R. 14000 be retained:

"(k) Nothing contained in this section shall extend to, apply to, or prohibit operations in connection with projects for the improvement of navigable waters or construction of public works, authorized by Acts of Congress. Further, this section shall not be construed to authorize the issuance of permits by any other Federal agency for disposal of dredged materials from such authorized projects. [Whenever the disposition of such materials into the navigable waters of the United States is proposed by any department or agency of the United States, or any public or private agency under Federal permit or license, the Federal department or agency involved shall first consult with the Secretary of the Interior with a view to the prevention of pollution of such waters by oil. The Secretary of the Army in cooperation with the Secretary of the Interior shall, within one year after enactment of this Act, develop guidelines governing disposal of such dredged matters."]

In view of the Memorandum of Understanding between the Secretary of the Army and the Secretary of Interior, dated July 13, 1967, the third sentence of Subsection 19(k) should be deleted. It is also urged that the fourth sentence of this Subsection be deleted pending the results of the Pilot Study programs heretofore authorized by Congress.

The definition of "oil" [§ 19(a)(1)] should be revised as suggested in the foregoing commentary of S. 2760.

H.R. 15906

It is urged that Subsection 21(a) be amended to read:

"SEC. 21(a) As used in this section, the term 'matter' means any substance of any description or origin, other than oil [or dredge spoil], which, when discharged from a vessel or short installation into any waters in substantial quantities, presents, in the judgment of the Secretary, an imminent and substantial hazard to the public health or welfare."

One final observation. It is ironic, but one of the absurd results of the proposed legislation when considered in conjunction with S. 2760 and H.R. 14000, is that

the owner or operator of a vessel who removes a discharge of oil by detergents, or other means, pursuant to the provisions of S. 2760 and H.R. 14000, can be held liable under H.R. 15906 for introducing hazard substances into the waters. See Professor Smith's report on the "Torrey Canyon" studies on pollution and marine life, supra.

H.R. 13852

We urge the defeat of this bill to prohibit or abolish dumping in authorized dumping areas in the Great Lakes established under the provisions of the Act of March 3, 1905, or any other Act, for the reasons hereinbefore stated.

Respectfully submitted.

JOHN A. DOWNS,
President, Great Lakes Dredge & Dock Co., Chicago, Ill.
MAYLIN H. GREASER,
President, American Dredging Co., Philadelphia, Pa.
E. D. WATTLES,
President, Dunbar & Sullivan Dredging Co., Detroit, Mich.
NATIONAL ASSOCIATION OF RIVERS & HARBORS CONTRACTORS,
Baltimore, Md.
RIVER & HARBOR IMPROVEMENT ASSOCIATION,
Milwaukee, Wis.
SOUTHEASTERN DREDGE OWNERS ASSOCIATION,
Chesapeake, Va.
GULF COAST DREDGING ASSOCIATION,
New Orleans, La.

MAY 3, 1968

STATEMENT OF NATIONAL ASSOCIATION OF MANUFACTURERS

This statement is submitted on behalf of the National Association of Manufacturers, a voluntary association of business and industrial enterprises, both large and small, located in every state. We appreciate this opportunity to present our views on H.R. 15906, the proposed "Oil and Hazardous Substance Pollution Control Act of 1968" and on S. 2760.

H.R. 15906

We begin with a discussion of H.R. 15906, and note that, contrary to opinion in some quarters, this measure is not designed solely to avoid a repeat of the unfortunate consequences which followed the accident involving the Torrey Canyon when large quantities of oil cargo were dispersed into open waters from this ship. Shore installations are specifically covered by the provisions which would become Section 21 of the Federal Water Pollution Control Act. And most importantly, here the thrust of the legislation is not to control oil emission, but rather the discharge of "matter" defined as "any substance of any description or origin, *other than oil*, which, when discharged from a vessel or shore installation into any waters in substantial quantities, presents, in the judgment of the Secretary, an imminent and substantial hazard to the public health or welfare." (Emphasis added.)

Since the bill includes manufacturing and industrial plants in its definition of "shore installation," this Association has a direct interest in the subject matter.

Proposed Section 21(b) would provide that "The owner or operator of any vessel or shore installation from which matter is discharged into the navigable waters of the United States or into the waters of the contiguous zone shall immediately ameliorate the effects of discharged matter under the direction of the Secretary or his delegate. If such owner or operator fails to so act, the Secretary may ameliorate the effects of such discharged matter, and such owner or operator, and, as appropriate, the vessel and shore installation shall be liable, not withstanding any other provision of law, to the United States for the full amount of the actual cost incurred by the United States under this subsection: *Provided*, That there shall be no such liability where such discharge was due to an act of God . . ."

These provisions would give the Secretary of the Interior sweeping powers with no apparent restraints or cautionary safeguards. There appears to be no

administrative hearing in connection with the decision by the Secretary that a discharge of "matter" presents an imminent and substantial hazard to the public health or welfare. Likewise, there is no administrative hearing provided for prior to a decision by the Secretary to undertake amelioration of the effects of the discharged matter.

The effect of these provisions is to impose a very heavy liability based upon broad and undefined language. The term "public welfare" is so broad and vague that it could be used to justify almost any judgment made by the Secretary. In addition, the phrase "ameliorate the effects" is undefined and perhaps incapable of definition. It is conceivable that the duty imposed may be impossible of performance at any cost. The liability of the owner or operator would appear to be measured by the amount of effort the Secretary decides to undertake and the subsequent cost thereof. If such a law could withstand an attack based upon charges of vagueness and lack of due process, the properiety of enacting such a measure is, nevertheless, dubious.

We note that liability attaches to the owner or operator, whether negligent or not, under the terms of subsection 21(b) in every case where matter is discharged from a vessel or shore installation, except where such discharge was due to an act of God. We feel that such strict liability is unwarranted and fails to take into account the possibility of acts of vandalism, sabotage, and negligence of other parties.

Subsection 21(d) provides that "there is hereby authorized to be appropriated to a revolving fund established in the Treasury under this Act, such sums as may be necessary to carry out the provisions of this section and section 20(i) of this Act. Any funds received by the United States in payment of any actual costs incurred by the Secretary under said sections and penalties collected for any violation of section 20 of this Act shall be deposited into said fund for such purpose. All sums in said fund shall remain available until expended." We question the desirability of earmarking any particular receipts during this time of severe fiscal problems. The proliferation of special funds and revolving funds does not contribute to orderly government processes.

Inasmuch as the American Petroleum Institute has suggested various amendments dealing with oil discharges from vessels, we will not discuss this aspect of H.R. 15906. On the basis of the foregoing, we respectfully urge that the Committee not report the sections of H.R. 15906 here discussed.

S. 2760

S. 2760, in part, also deals with pollution of water by oil. This bill would amend the Federal Water Pollution Control Act so as to insert a new Section 19 entitled "Oil Pollution Control." The term "oil" would be defined so as to include other matter when mixed with oil, apparently in the most minute proportion, since the definition reads "oil of any kind or in any form, including, but not limited to, fuel, sludge, oil refuse, and oil mixed with other matter." As in H.R. 15906, the term "shore installation" is defined to include "manufacturing or industrial plant," but here it goes on to include the phrase "which is used in the handling or processing of oil and which is located in or adjacent to the navigable waters of the United States." It is not clear from the bill or the Senate Committee Report whether this is intended to include manufacturing or industrial plants which use oil for lubricating purposes. Since the use of oil for such purposes is practically universal, this becomes a highly significant question. The Report of the Senate Public Works Committee on S. 2760 refers to "petroleum industrial plants." Owing to the fact that "navigable waters of the United States" are defined as "all inland waters navigable in fact," it is conceivable this bill as now written could be interpreted as being applicable to every U.S. manufacturing plant located on a stream or river.

Proposed Section 19(b) provides that "Except in case of emergency imperiling life or property, or unavoidable accident, collision, or stranding, and except as otherwise permitted by regulations prescribed by the Secretary under this section, it is unlawful to discharge or permit the discharge of oil by any method, means, or manner into or upon the navigable waters of the United States or adjoining shorelines of the United States." Any owner or operator of a vessel or shore installation who willfully violated this provision could be punished by a fine not exceeding $2,500 or by imprisonment not exceeding one year or by both for each offense. Thus, it appears that a manufacturer who is treating his

wastewater with a control facility approved by a state water pollution control agency and discharging the treated wastewater into navigable waters, could be guilty of a Federal crime if the treated wastewater contained any amount of oil. This provision runs completely contrary to the schemes of regulation set up under the Federal Water Pollution Control Act and the Water Pollution Control Acts of the various States. The lack of quantitative specificity makes such a criminal provision of extremely doubtful validity. In any event, it is highly unwise and undesirable to set up a criminal statute that could result in conflict with state and federal regulatory provisions.

The proposed legislation further provides that any vessel or shore installation which violates this section or any regulation issued thereunder, shall be liable for a penalty of not more than $10,000, although it is not clear how this type of in rem penalty can be made applicable to a shore installation. Some limitations are placed on the liability of the owner or operator under S. 2760; however, they could still be held accountable for such unauthorized acts as vandalism, sabotage, and negligent acts by others.

Subsection 19(e) would provide that "The owner or operator of a vessel or shore installation from which oil is discharged into or upon the navigable waters of the United States or adjoining shorelines shall remove such discharged oil immediately from such waters and shorelines in accordance with regulations prescribed by the Secretary under this section. If such owner or operator fails to so act, the Secretary may remove the oil or arrange for its removal from such waters and shorelines, and such owner or operator and, as appropriate, the vessel and the shore installation shall be liable, not withstanding any other provision of law, to the United States, in addition to any penalties prescribed in this section, for the full amount of the actual costs incurred by the Secretary under this subsection: *Provided*, That there shall be no such liability where such discharge was due to an act of God."

At best, the words "unlawfully and negligently discharged" should appear in this section to avoid the imposition of liability without fault The obligation would be to act "immediately," with apparent disregard of whether the manpower or equipment was readily available. Oil would have to be removed in accordance with regulations prescribed by the Secretary. Thus, the Secretary would be granted sweeping powers to require methods of removal which could turn out to be extremely costly and unnecessary under particular circumstances. The liability for the full amount of the actual costs incurred by the Secretary in removing the oil would be imposed without administrative hearing or review. It is also significant to note that criminal and civil penalties would be imposed regardless of whether or not there were any adverse effects from the discharge. By contrast, subsection 19(k) referring to federal operations uses the phrase "where adverse effects may occur."

Our conclusion is that it would be highly desirable to leave the regulation of discharges from shore installations subject to the present regulatory provisions set forth in the Federal Water Pollution Control Act. Therefore, it is respectfully urged that, if any bill is reported, provisions providing for a different system of regulation or enforcement for shore installations be deleted.

DUAL REGULATION

It would be most unfortunate to have a dual system of administering water pollution control for discharges from shore installations. Under the policy of the Water Quality Act of 1965, as wisely adopted by the Congress, there has been a tremendous ferment of interest in water quality objectives and means for their attainment as the states formulated water quality standards for interstate waters within their respective boundaries. Thus, action to maintain high standards applicable to waters receiving discharges of not only oil but of any kind of matter is at an all-time high. The most desirable approach would be to allow this program to go forward through administration by the states of their own water quality standards, rather than to impose a conflicting, federally administered system.

We would be remiss if we did not mention one difficulty arising in connection with the Water Quality Act of 1965. Under that Act, the Secretary of the Interior is directed to make a determination as to whether the state standards are consistent with the objectives of the Act. The criteria used by the Secretary in making these determinations have been expressed in various docu-

ments and letters issued internally and externally to various parties from time to time over the past two years, with none of them being printed in the Federal Register. As a result, considerable confusion has arisen both among state agencies and among industrial companies as to what criteria may be properly applied to these standards. It appears that some of the state standards already deemed to be consistent with the Act are no longer considered as acceptable. The confusing, varying attitude of the Secretary is illustrated by the sentence in his letter of February 15, 1968 to the Governor of Alabama in which he stated:

"In the course of approving the various standards submitted by the States, it has become obvious to me that some of those approved last summer were not of the same quality which we are now requiring."

Part of the difficulty appears to lie in the belief of the Secretary that he has an absolute veto power over the state water quality standards exercised through a flat power of approval or disapproval, when the Act merely authorizes him to make a determination that the standards are consistent with the objectives of the Act. And, an even greater cause of the confusing, vacillating treatment of state water quality standards is the fact that formal administrative procedures have not been adopted in carrying out the Secretary's function in this regard, despite the fact that Section 12(a) of the Federal Water Pollution Control Act authorizes him to issue regulations regarding any of his functions under the Act.

We respectfully suggest that it would be desirable for the Secretary to follow the procedures set forth in the Administrative Procedure Act. This would involve his printing in the Federal Register the criteria by which he proposes to evaluate the state water quality standards and allowing an appropriate period of time for comment by all interested parties prior to the final promulgation of these criteria. We believe that this procedure would be a constructive contribution toward an orderly administration of the provisions of the Water Quality Act of 1965, and by contributing clarity as to what may be expected by those subject to water pollution control requirements would result in quicker attainment of our mutual goals.

In any event, the perfection of procedures under the Water Quality Act of 1965 so as to carry out the expressed intent of Congress to preserve the primary responsibilities of the States would be highly preferable to setting up a conflicting, centralized regulation of shore installation discharges completely contrary to the intent stated in the Federal Water Pollution Control Act. We strongly urge that any such provisions be deleted from any legislation reported by this distinguished Committee.

SHIPBUILDERS COUNCIL OF AMERICA,
May 10, 1968.

Hon. JOHN A. BLATNIK,
Subcommittee on Rivers and Harbors, Committee on Public Works, House of Representatives, Washington, D.C.

DEAR MR. BLATNIK: The Shipbuilders Council of America, whose shipyard members build, convert and repair commercial vessels and other floating equipment, has attempted to assess the ramifications of the various bills concerning control of water pollution, on which you held hearings last month, as they potentially apply to the shipbuilding and ship repairing industry, and respectfully submits the following observations which may be of interest to you and the members of your Committee.

(1) Approximately 93% of all U.S. trade and commerce is presently carried in vessels of other nations, and a substantial portion of our confined Great Lakes trade moves in Canadian vessels. These shocking statistics are merely a reflection of the low national priority which has been assigned merchant shipping and associated shipbuilding activities in this country during the past decade.

(2) Therefore, in the absence of appropriate international agreements, it would appear that legislation requiring water pollution control systems on U.S. flag oceangoing and Great Lakes commercial ships would not reach the major shipping media serving U.S. ports and operating in U.S. estuaries.

(3) In any event, pollution resulting from dumping or spilling of sewage or other materials from ships is insignificant.

(4) The imposition of pollution control systems could have adverse economic repercussions on many shipping operators who are endeavoring to stem the tide

of a complete takeover of essential trade routes by foreign shipping which, in turn, would be required to install the same systems, and

(5) Similarly the cost of ship construction and ship conversion—which is already high in the United States in comparison with foreign activities of like character—would be still higher, and invoke a further economic disadvantage on U.S. flag operators.

In presenting these observations, we in no way derogate the purpose of the various bills—we have only praise for the Committee's commendable efforts to reach rational as well as realistic solutions to the increasingly vexing problems of air and water pollution. We are confident, however, that you and the members of your distinguished Committee will agree that any workable approach to the water pollution problem must be predicated on the cost of implementation as measured against the possibility of achieving effective solution. In the case of commercial shipping, for the reasons stated, the former will be high, and the latter, minimal at best.

One other comment, bearing on the establishment and enforcement of any regulations which might ensue from the passage of legislation providing for regulations applicable to ships, may also be helpful. Historically, the United States Coast Guard has had purview over regulations affecting the strength, stability and safety of merchant ships constructed in U.S. shipyards. It has had a long experience in this field, and possesses the kind of special expertise which would be necessary in enforcing determinative regulations involving water pollution systems. We, as an industry, therefore, feel very strongly that the jurisdiction and responsibility of the U.S. Coast Guard should be so expanded to encompass regulations and enforcement concerning pollution control measures applicable to U.S. ships, both oceangoing and those plying the Great Lakes and inland waterways.

We respectfully request that this letter, on behalf of our members in all sections of the country, be made a part of the record of your current hearings.

Sincerely,

EDWIN M. HOOD,
President.

RAILROAD COMMISSION OF TEXAS,
AUSTIN, TEX., *April 26, 1968.*

HON. GEORGE H. FALLON,
U.S. House of Representatives,
House Office Building,
Washington, D.C.:

The Railroad Commission of Texas is the State agency which has and exercises jurisdiction over pollution from oil production operations in Texas. Under the Water Quality Act of 1965, the Commission worked with the Texas State Water Quality Board in establishing standards on water quality for oil and we have the legal machinery for implementation and enforcement. Our standards have been approved by the Secretary of the Interior. We can see no need for dual jurisdiction over stationary sources of pollution of any kind, or for Federal preemption of our authority. We are prepared to cope with any problem of oil pollution from shore installations in Texas. We therefore urgently request that all reference to such installations in S. 2760 and H.R. 15906 be deleted before passage of these bills.

JIM C. LANGDON,
Chairman.

BEN RAMSYE,
Commissioner.

BYRON TUNNELL,
Commissioner.

THE AMERICAN PUBLIC HEALTH ASSOCIATION, INC.,
April 30, 1968.

HON. GEORGE H. FALLON,
Chairman, House Public Works Committee, Rayburn House Office Building, Washington, D.C.

DEAR MR. CHAIRMAN: The American Public Health Association (APHA) throughout its ninety-five year history as a professional organization has always been concerned about the problems of water quality. In fact, we consider our-

selves pioneers in this field. Now in its twelfth edition, our "Standard Methods for the Examination of Water and Wastewater" is as much of an outstanding contribution to the public's health today as it was when first published in 1905.

Within the past fifteen years, APHA has reinforced its support for State water pollution control programs. In 1955 we urged Federal legislation to provide additional research on water pollution problems; in 1957 APHA endorsed the approved amendments to Public Law 660; in 1959 we advised the strengthening of water pollution control measures within the Public Health Service. To trace APHA's concern with water pollution is also to discover our dismay with the slow progress in solving this health problem.

In 1966 we strongly opposed the transfer of water pollution control authority from the Department of Health, Education and Welfare to the Department of the Interior. We expressed our belief that this substitution served no constructive purpose and would only result in the mere shifting of health experts into the ranks of the new administering agency. In passing, we should like to note that the monumental achievements promised at the time of this transfer of authority are yet to be attained.

The present amendment in question, H.R. 15907, has raised some concern on the part of APHA. We have always maintained that to be effective, water pollution control must be carried out at State and local levels. This would be accomplished with as much oganizational latitude as possible. We believed then, and still do now, that planning, development and control ought to be aimed at promoting local initiative. The guidelines laid down by the original Water Pollution Control Act supported this concept. However, segments of the current amendment to this Act seem to contradict the very idea of local self-sufficiency. In particular, we refer to the proposed tax on municipal bonds which would finance construction of sewage treatment facilities. Tax exemption has traditionally served as an incentive for investment in local public works. It is difficult to perceive just how the concept of a State-Federal partnership could survive if a municipal bond tax were implemented. Such a proposal would run directly counter to the intent of the original Act and would penalize rather than stimulate local investment in vital public works projects.

Another problem arising out of this amendment is the possibility that Federal reimbursement of local funds would no longer be authorized. Congress, in 1966, approved the pre-financing provision, thus rewarding the initiative of those States which began worthwhile projects prior to Federal approval. As with the plan for taxing municipal bonds, the concept of a Federal-State partnership would be jeopardized if the prefinancing provisions were deleted from the proposed amendment.

The APHA cannot emphasize enough the pressing need for a more expedient and effective means to eliminate polluting effluents in our nation's water supply. Progress can be made in this direction only if the Federal Government is responsive to the States in their campaigns against water pollution. Consequently, we would oppose any proposals which retard progress in this area.

Sincerely yours,

BERWYN F. MATTISON, M.D.,
Executive Director.

STATE OF MARYLAND DEPARTMENT OF HEALTH,
ENVIRONMENTAL HEALTH SERVICES,
April 26, 1968.

Hon. GEORGE H. FALLON,
Congress of the United States,
House of Representatives, Washington, D.C.

DEAR CONGRESSMAN FALLON: Please accept my views concerning H.R. 16044 which would amend the Federal Water Pollution Control Act to authorize grants for assisting in improved operation of waste treatment plants.

The bill with certain modifications would assist Maryland's water pollution control program. In the past I have supported the wisdom of Federal and State grants to assist in the initial construction of main sewerage facilities. But it has seemed to me that the cost of maintenance and operation could be assessed against those served through appropriate user charges. However, in many instances, the requirements of high water quality standards designed to enhance water uses many miles from the point of discharge cause a substantial increase in the cost

of operating sewage treatment works. Equity would seem to indicate that these additional costs should be borne by the general public who benefit from the additional treatment, as well as those who are discharging wastes to the treatment plant.

Therefore, I urge your favorable consideration of the bill with the following modifications:

1. Strike the word "chemical" at the start of Line 1, Page 2.

2. Strike Lines 12, 13 and 14 on Page 2 and in lieu thereof insert, "waste treatment plants where in the opinion of the Secretary a higher than normal degree of treatment is required to meet water quality standards."

Thank you for your consideration.

Sincerely yours,

JAMES B. COULTER,
Assistant Commissioner, Environmental Health Services.

KANSAS CITY, MO., *May 1, 1968.*

Representative RICHARD BOLLING,
Senate Office Building, Washington, D.C.:

Recommend you support certain features of H.R. 15907 for long term Federal loans to finance municipal sewage treatment facilities. Major provisions of bill could benefit Missouri cities. Urge this legislation be enacted as an additional means of financing and not as substitute for existing program. Recent favorable State action providing $2.5 million State matching funds for 25–25–50 program should be continued and expanded as soon as Federal funds allow. While new legislation appears helpful, we are concerned about non-tax exempt features of proposal, possibility of undue Federal interference in establishing service charges, and extent which Missouri law will permit utilization of this type bond.

ILUS W. DAVIS, *Mayor.*

AMERICAN FEDERATION OF LABOR AND
CONGRESS OF INDUSTRIAL ORGANIZATIONS,
Washington, D.C., May 9, 1968.

Hon. GEORGE H. FALLON,
Chairman, Committee on Public Works,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: In connection with hearings by your Committee on amendments to the Federal Water Pollution Control Act, I am submitting the enclosed statement on behalf of the AFL–CIO. I respectfully request that this statement be included in the record of hearings. Thank you.

Sincerely,

ANDREW J. BIEMILLER,
Director, Department of Legislation.

STATEMENT BY ANDREW J. BIEMILLER, DIRECTOR, DEPARTMENT OF LEGISLATION, AMERICAN FEDERATION OF LABOR AND CONGRESS OF INDUSTRIAL ORGANIZATIONS

Mr. Chairman, my name is Andrew J. Biemiller. I am Director, Department of Legislation, American Federation of Labor and Congress of Industrial Organizations. I am also chairman of the AFL–CIO Staff Committee on Atomic Energy and Natural Resources.

I appreciate this opportunity to present the position of organized labor on S. 2760, H.R. 15906 and H.R. 15907, amending the Water Pollution Control Act.

S. 2760 and H.R. 15906 amend the sections of the Act dealing with oil pollution. S. 2760 provides for federal contracts and grants with or to public or private entities to develop methods of controlling pollution of lakes and controlling acid or mine pollution, including an area demonstration program.

The AFL–CIO wishes to go on record in general support of S. 2760 and H.R. 15907 with amendments I shall propose as follows:

PROPOSED AMENDMENTS TO S. 2760

1. In Section 19(a) the definition of public shore installation should be broadened to include those operated by regional or local government agencies, as well as those operated by the United States, or by a state.

2. We strongly oppose the criminal penalties levied against seamen and officers of a vessel violating the provisions of the bill and discharging oil into waters, Section 19(c), and suspension or revocation of license of master or other licensed officer. Section 19(g). These provisions should be stricken from the bill.

PROPOSED AMENDMENTS TO H.R. 15907

H.R. 15907 contains an amendment to Section 8 of the Act with respect to federal assistance in financing construction of local water waste treatment plants heretofore carried out entirely by means of grants-in-aid.

This amendment would authorize the Secretary for three years (fiscal years 1969–71 inclusive) to enter into contracts with a state, municipality, or interstate or inter-municipal agency, within the amounts authorized for appropriation, to provide federal assistance and backing in paying out on principal and interest for construction bond issues (30-year maturity) floated to finance waste treatment facilities. This proposed program would apply only to areas containing 125,000 or more population, or defined by the Bureau of the Budget as standard metropolitan statistical areas.

The federal assistance would consist of—

(*a*) The federal share of principal and interest payments on the locally issued bonds.

(*b*) An additional payment to cover the difference between the private money market interest rate and the current average yield of outstanding federal obligations of comparable maturities.

(*c*) Assumption of outstanding amounts due by the federal government in event of default by the non-federal agency.

(*d*) Fiscal year authorizations of $700 million for 1969; $1.0 billion for 1970, and $1.25 billion for 1971, together with authorization to appropriate moneys for costs of liquidating the contracts. Municipalities under 125,000 population are entitled to "at least" 50% of the first $100 million appropriated under Section 8 for construction of local water waste treatment works.

(*e*) Various eligibility criteria, set by the Secretary, dealing with financial soundness, reasonable interest rates, compatibility with regional water quality plans, adequate user charges, maximum efficiency of design and operation, compatibility with state plan as approved by Secretary, state plan to upgrade efficiency of all local treatment works that have in operation a treatment works operator certification program not later than July 1, 1970.

We realize that there are current problems in finding the necessary funds to honor the authorizing commitment of Congress in enacting the 1965 and 1966 amendments to the Federal Water Pollution Act in the area of construction grants for the localities.

In view of the budgetary pinch, we endorse the approach set forth in the amendments to Section 8 as a temporary expedient. We suggest, however, that the Committee consider seriously the following recommendations with regard to the bonding contracts provisions of this legislation.

1. That the contracts entered into by the Secretary, to assist in paying off public non-federal bond issues for approved water waste treatment plants, over and above other funds available, including federal construction grants under the Act, provide for an additional federal grant sufficient to pay one-third (33.33%) of the annual interest charge payable each year by the non-federal public agency on bonds floated on the private money market. This is along the lines of similar provisions in the Proxmire-Patman bills (S. 3140 and H.R. 15991).

2. That the interest income from the bonds or other securities be subject to federal taxation and the bonds sold to parties other than any agency of the United States Government.

3. That the bonding provisions in Section 2 of H.R. 15907 cover the smaller localities, as well as those of 125,000 population or over, and standard metropolitan statistical areas.

Once again, we urge that this Committee give serious attention to these proposals in the interest of more effectively moving forward on a national water pollution control program which at present is not moving forward. Thank you.

THE CITY OF SHAWNEE,
Shawnee, Okla., April 19, 1968.

Hon. TOM STEED,
Congress of the United States,
House of Representatives, Washington, D.C.

DEAR TOM: I am concerned about House Bill No. 15907 by Mr. Fallon and Mr. Blatnik. This bill is to amend the Federal Water Pollution Control Act, relating to the construction of waste treatment works, and to the conduct of water pollution control research, and for other purposes.

I am concerned as follows:

Page 2 line 3—Only towns that have had project or have one going that will be finished by July 1, 1968 are eligible.

Page 5 line 5—This would hamper tremendously sale of bonds with the interest on same being subject to tax. This would actually be unfair to the large cities since the smaller towns could qualify under the present Bill 660 for 30 per cent grants. I think this would cause arguments between the little towns and big towns.

Page 5 line 23—Only cities of 125,000 people or more are eligible for these funds. If a limitation by size, then it would be necessary to increase funds in the 660 program for the small towns and cities.

Page 8 line 3—Slowness in which cities could proceed in completing contracts. Actually, under most of this program there is nothing for the small towns.

Page 9 line 17—It limits 50 percent of the first $100 million for towns under 125,000 population. With 50 states that would only give $1 million for Oklahoma if divided equally among the 50 states which is totally inadequate for requirements for the past several years.

The Health Department in our State has done a tremendous job in assisting the small towns—750, 1500, 2000—and in so doing, our State is being recognized as outstanding for accomplishments in sewer pollution control and elimination.

I know the needs in the big cities are great, but I am sure you recognize that we only have two cities in Oklahoma who could qualify under this program. So maybe I am being a little selfish, but since there are so many cities and towns under the 125,000, I felt you would be concerned as I am in making possible continued efforts in improving our sewer plants and sewer systems to meet federal requirements of 90 per cent removal of solids.

If you will refer this matter to some member of your staff, I would appreciate your consideration.

Yours truly,

Bill.
W. B. MORAN.

RAILROAD COMMISSION OF TEXAS,
OIL AND GAS DIVISION,
Austin, Tex., April 26, 1968.

Hon. JIM C. WRIGHT,
U.S. House of Representatives,
Washington, D.C.

DEAR CONGRESSMAN WRIGHT: We have just been advised that S. 2760, the oil spill cleanup legislation is being considered at public hearings before the House Public Works Committee, April 23 to 25.

This bill would extend federal control of oil pollution to cover shore installations.

Until now, the federal government has regulated vessels only. Because of the transient nature of vessels we find no quarrel with federal regulation of such vessels.

Federal regulation of stationary sources of pollution is contrary to the declaration of policy of the Federal Water Pollution Control Act which states that it is the policy of Congress "to recognize, preserve, and protect the primary responsibilities and rights of the states in preventing and controlling water pollution . . . ."

Among the facilities defined as "shore installations" in S. 2760 are drilling facilities, pipe lines, pumping stations, loading docks, wharfs or piers "which is located in *or adjacent to* the navigable waters of the United States."

The inclusion of shore installations, as defined in the proposed bill would open the door to federal regulation, on a pollutant-by-pollutant basis, of all water pollution which is already being handled by the states in an efficient manner. Further it would render the orderly procedures under which the states set and enforce their own water quality standards meaningless.

The Railroad Commission of Texas is designated by the Texas Legislature as the agency responsible for oil pollution abatement. It has adopted necessary rules and regulations, has adequate inspection and enforcement personnel and is constantly at work improving conditions. The Commission and the Texas Water Quality Board have devised water quality standards and submitted same timely to the Secretary of the Interior in compliance with the Federal Water Pollution Control Act. These standards have been accepted by the Interior Department.

Therefore, we see no need for further legislation to enable federal encroachment in this field reserved unto the states.

We respectfully solicit your efforts in behalf of the State of Texas in this vital matter.

Yours very truly,

RAILROAD COMMISSION OF TEXAS,
JIM C. LANGDON, *Chairman.*
BYRON TUNNELL, *Commissioner.*
BEN RAMSEY, *Commissioner.*

GREAT LAKES COMMISSION,
Ann Arbor, Mich., April 16, 1968.

Hon. JOHN A. BLATNIK,
U.S. Representative,
Rayburn House Office Building,
Washington, D.C.

DEAR CONGRESSMAN BLATNIK: In a recent letter to you it was our privilege to furnish, in summary form, the resolutions and recommendations of the Great Lakes Commission adopted at our Annual meeting in November 1967. (Copy attached.)

Among these items there was included a recommendation on *Disposal of Wastes from Vessels* and reference to S. 2525. Since you have introduced H.R. 16207, a companion bill to S. 2525, with hearings announced before the House Public Works Committee for April 23–25, 1968, it was thought advisable to contact you again, review the matter, and let you know of the developments to date as we know them.

Insofar as regulations dealing with the control of wastes from *commercial vessels*, documented vessels of the United States and foreign vessels temporarily using the navigable waters of the United States, the Great Lakes Commission took the position that these regulations should be the responsibility of the Federal government and recommended that: (1) a specific date be set for placing the regulations in effect, (2) a specific set of approved quality standards be promulgated, (3) a specific plan be formulated which will enable shipping firms to accumulate a reserve before taxes to be used for the cost of installation of waste disposal equipment and (4) specific recognition that regulations, standards and their date of effectuation be compatible with similar action which may be taken in Canada.

The Great Lakes Commission strongly recommends that the regulation and control of wastes from *pleasure craft* should be the responsibility of the states which issue the permits and license the craft, and that the requirements for controlling the disposal of wastes from pleasure craft should be uniform throughout the Great Lakes:

It was the recommendation of the conferees at the Conference on Lake Michigan Pollution, January 31–February 7, 1968, and agreed to by conferees on March 11, 1968, that the four states bordering on Lake Michigan, Illinois, Indiana, Michigan and Wisconsin, join together in formulating uniform rules and regulations for controlling wastes from watercraft. It was further recommended that these rules and regulations will generally conform with the Harbor Polultion Code adopted by the City of Chicago, the regulation adopted by the Michigan Water Resources Commission, and the Model Boating Act which prohibits "over side" disposal and does not approve the use of the macerator clorinator. Since each of the four states operates under different statutes, con-

ferees will recommend to their respective boards, legislatures, etc., approval of the proposed uniform rules and regulations. Commensurate requirements (the Conference recommended) controlling the discharge of wastes from commercial vessels are to be the responsibility of the Federal government.

It is understood that representatives from the four states have met, and have reached agreement on states' activities in connection with regulating disposal of wastes from watercraft. Formal announcement of the agreement on the rules and regulations for disposal of wastes from watercraft for the Lake Michigan states is expected shortly. It appears logical and desirable that the remaining states bordering the Great Lakes will see fit to adopt like regulations for the operation and control of watercraft for their navigable waters.

In view of the foregoing it is the recommendation of the Great Lakes Commission:

(1) That the Federal government establish requirements and regulations for controlling the discharge of wastes from *commercial vessels;* specifically establishing effective dates; effluent water quality standards; assistance in financing installation costs and conformity with regulations which may be established by Canadian authorities.

(2) That the states which issue permits and licenses for *pleasure craft* be responsible for controlling the disposal of wastes from these craft; that the rules and regulations be uniform between and among the states; and that the agreements reached by the four states bordering on Lake Michigan be considered by the remaining Great Lakes states in establishing uniform rules and regulations which govern the use of their navigable waters by federally non-documented, small boats or pleasure craft.

It appears that the Great Lakes Commission will not be able to present an oral statement at the hearings, April 23–25, 1968, on H.R. 16207.

It will be greatly appreciated if you permit this letter to be incorporated in the record of hearings as presenting the views of the Great Lakes Commission.

Thank you very much for your many past courtesies and assistance.

Sincerely yours,

LEONARD J. GOODSELL,
Executive Director.

GREAT LAKES COMMISSION

At its Annual Meeting, the Great Lakes Commission adopted the following resolutions and recommendations which are of primary interest in the water resources area, and some of which are of direct interest in connection with legislation now before the Congress.

FISHERIES AND WILDLIFE

Anadromous Fish Act

A resolution urging the continuance of the Anadromous Fish Act beyond 1970 and provision for a higher federal cost-sharing for projects which are regional in nature. (Copy attached)

Land and Water Conservation Fund

A resolution supporting additional funding for this program and continued division of funds on a 60% state, 40% federal basis, and opposing exemption of the Corps of Engineers project areas from entrance fee requirements, S. 1401 and other bills. (Copy attached)

Consolidation of Grant Programs

A recommendation to support the International Association of Game, Fish and Conservation Administrators in their effort to bring about a consolidation of the fish and wildlife grant programs, using the programs of the Department of Interior as a pilot effort.

SEAWAY, NAVIGATION AND COMMERCE

Rail Freight Rates

A resolution which requests the Midwest Governors' Conference to urge the Interstate Commerce Commission to enter into a study of the relative levels and reasonableness of railroad freight rates on commodities intended for export, in general and bulk cargo ocean services, through the North Atlantic range of ports and the Great Lakes ports, and the Gulf Coast and Great Lakes ports.

Disposal of Wastes from Vessels

A recommendation that the regulations developed for the control of wastes from *commercial vessels* include the following considerations: (1) a specific date be set for placing the regulations in effect, (2) a specific set of standards be introduced to serve as a guide for companies, (3) a specific plan to be formulated which will enable shipping firms to accumulate a reserve before taxes be used for the cost of installation of waste disposal equipment and (4) specific recognition that regulations, standards and their date of effectuation be compatible with similar action which may be taken in Canada. Now under consideration are S. 2525 and other bills which deal with commercial interstate and international vessels and pleasure craft. In a previous action, the Great Lake Commission had concluded that the regulation and control of wastes from *pleasure craft* should be the responsibility of the states which issue permits and license the craft, and that the requirements should be uniform throughout the Great Lakes.

Derelict Vessels

A recommendation that all concerned be alerted to the potential problems presented by fuel oil, cargo and other pollutants contained in the wrecks of apparently abandoned vessels in the Great Lakes, and the apparent lack of authority for the removal of vessels and polluting substances prior to their becoming a pollution problem. There have been two recent court decisions which define certain responsibilities of owners of wrecked or sunken vessels on inland waters and actions which may be taken to effect clean-up or removal of pollutants. It appears that federal legislation (R. & H. Act of 1898, 33 USC 409, and others) should be expanded to permit or require a federal agency to act not only in hazard or obstruction to navigation matters but also in instances where derelict vessels and their cargoes pose threats or hazards to water quality, beaches, intakes or other water uses.

Lake Erie-Lake Ontario Canal

A recommendation that the feasibility study of the Lake Erie-Lake Ontario Canal be funded fully to permit its completion at the earliest possible date.

The Great Lakes Commission urges your consideration of and support for these resolutions and recommendations.

Sincerely yours,

LEONARD J. GOODSELL,
Executive Director.

COMMONWEALTH OF PENNSYLVANIA,
DEPARTMENT OF HEALTH,
Harrisburg, April 9, 1968.

HON. GEORGE H. FALLON,
Chairman, House Public Works Committee,
House of Representatives,
Washington, D.C.

DEAR MR. FALLON: The Great Lakes—Upper Mississippi River Board met recently and carefully considered H.R. 15907, the Water Quality Act of 1968.

We are seriously concerned about the provisions of this bill and adopted the attached statement for your consideration.

Sincerely yours,

WESLEY E. GILBERTSON,
Chairman, Great Lakes-Upper Mississippi River Board.

POSITION STATEMENT BY GREAT LAKES—UPPER MISSISSIPPI RIVER BOARD

The basic purpose of financial assistance authorized under the Federal Water Pollution Control Act for construction of waste treatment plants is to provide incentives for communities to move ahead faster with installation of needed facilities. The proposal in H.R. 15907 to modify the existing grant authorization to one which would partially substitute contracts to provide annual Federal payments instead of outright cash grants, raises a number of serious questions as to possible adverse effects on attainment of goals for sewage treatment construction. It is recognized that the current Federal fiscal dilemma which gave rise to this proposal is importantly related to the Vietnam military needs. These could be reduced significantly in the months ahead. For this reason it might be wise to

avoid hasty action in making major changes in the present authorization. Furthermore a number of states have embarked upon financial incentive programs in this field which have been planned to complement the present Federal program, and careful analyses should be made to avoid harmful or interfering changes.

In addition to raising the need for evaluation of the advantages and disadvantages of the "annual payment" proposal, the present bill H.R. 15907, includes a number of new conditions which would have to be met by communities to be eligible for Federal financial assistance. Some of these conditions are objectionable and would certainly retard water pollution abatement progress. Comments on these follow:

1. Prohibition of tax exemption. We have been advised that this requirement could seriously interfere with the marketing of local obligations and could result in higher interest rates. It should be noted that many states have a legal limit of 6% on the interest rate for pertinent types of bonds. This section of the bill should be carefully evaluated.

2. Limitation to treatment works serving 125,000 or more population or Standard Metropolitan Statistical Areas. If the program were just being initiated, such a provision might have some application, but at this time there is a great need to upgrade and enlarge existing treatment facilities to achieve higher water quality objectives. This requirement, if enacted, would prevent use of Federal funds on many of these plants to attain established goals. This section should be deleted.

3. Consistency with area comprehensive planning. While there is agreement with this general objective, a flat requirement could well delay indefinitely the installation of critically-needed waste treatment facilities, where local officials have not yet agreed on a comprehensive area development plan. Therefore it is recommended that a phrase be added at the end of this section (line 14), as follows: ". . . where such plans have been developed."

In summary, Great Lakes-Upper Mississippi River Board recommends a careful assessment of the effect of changing the construction grants, in part, to contracts for annual payments, and urges certain changes and deletions to avoid serious intereference with the incentive program. The Great Lakes-Upper Mississippi River Board offers its assistance and consultation to arrive at improved legislation.

Adopted: April 5, 1968, Chicago, Illinois.

CALGON CORP.,
Pittsburgh, Pa., April 22, 1968.

Hon. JOHN BLATNIK,
Chairman, House Subcommittee on Rivers and Harbors,
House Office Building,
Washington, D.C.

DEAR CONGRESSMAN BLATNIK: Calgon Corporation as a manufacturer of specialty chemicals for water and waste treatment is interested in H.R. 16044. We believe certain portions of the bill as now written are subject to misinterpretation and should be clarified so as to reduce as far as is possible divergent interpretations. Therefore, we are submitting the attached statement on the bill with a suggestion as to how subsection (h) should be reworded.

We appreciate the opportunity to express our position and would be happy to appear in person for further clarification if necessary.

Sincerely,

A. M. GABER,
Public Relations Manager.

STATEMENT OF POSITION OF CALGON CORP.

"We are in concurrence with the intent of the amendment introduced by Mr. Dingell to improve operating efficiency of municipal waste treatment plants by chemical treatment. However, we strongly recommend that certain portions be rewritten to clarify present language. Specifically we recommend that subsection (h) be reworded to read thusly:

"'(h) the Secretary is authorized to make grants annually to any State, municipality, or intermunicipal or interstate agency for the purpose of assisting in the operation of existing waste treatment plants using proven methods to achieve a significant immediate improvement of effluent quality by removing materials such as phosphate, suspended solids and organic matter.'

"It is our firm opinion, backed by experience with problems faced by many municipal waste treatment plants, that these chemical treatment methods can be of value in producing a better quality effluent. Therefore, no single contaminant should be the sole factor for determining which plants will qualify for grants.

"We also believe that subsection I should be clarified in regard to the 25 per cent ceiling placed on such grants. Is the grant to be 25 per cent of the total operating costs including the cost of the 'proven chemical means of effluent treatment'? Or is it to be 25 per cent of the plant operating costs for the aforementioned chemical treatment only?

"We believe it should be qualified so as to leave little or no doubt as to which operating cost shall serve as the base figure in computing the 25 per cent grant."

AMERICAN CHEMSCIENCE, INC.,
April 11, 1968.

DEAR CONGRESSMAN BLATNIK: About a year and a half ago, while visiting Washington, I had the pleasure of meeting with your Legislative Assistant, Mr. Maurice B. Tobin. We discussed, in depth for several hours, various factors relating to pollution and the deterioration of our environment. Since 1938, I have been involved in practically every phase of work relating to the water cycle.

For more than 15 years we have been concerned with the pollution impact of both produced crude oil and refined petroleum products as they find their way into our lakes and rivers and tidal estuaries. As a result of this effort, our work has developed into different technical directions but with the same overall objectives: to maintain our waterways as close to their natural state as possible. For the past 15 years, we have made desiccated custom cultures that have been used in a variety of treatments for industrial waste problems. This development is now timely as a result of the world wide transportation of oil and oil spills. The problem was recently highlighted by the loss of the Torrey Canyon off the coast of Great Britain last year. Oil spill catastrophes as a recurring problem was again brought to public attention by the sinking of another tanker off the coast of Puerto Rico several months ago. Our associated company, Conservation Processes, Inc. has developed a continuous process to recover non-saleable emulsified crude oil ("slop-oil") and convert it into pipeline grade oil. "Slop Oil" is also a source of pollution.

The world wide traffic of petroleum in tankers takes on a new significance because of the increase in the size of the tankers now being built. Many of these will be two and three times larger than the size of some of the ships now in use. During World War II, numerous American tankers were torpedoed not far from shore all along the Eastern Atlantic seaboard as well as the Gulf Coast. There are no exact figures for the number which are now lying close enough to our shores for a period of almost 25 years. The time is not too far distant when these ships will start breaking up and creating severe economic losses in recreation and fisheries caused by the oil that will be released.

While there may have been some immediate use and effectiveness of detergents for the clearing of beaches of oil, there is no sound scientific basis for the use of detergents and/or wetting agents to disperse oil spills in oceanic waters. In fact, Dr. J. E. Smith, Director of the Marine Biological Laboratory at Plymouth, England, has reported that all marine life around the Cornish Coast has been largely destroyed by detergents used to treat the spills from the Torrey Canyon.

It is apparent, that in some instances, oil spills may be rendered more toxic to marine life because the wetting agents can change membrane potential in both microscopic and macroscopic oceanic life thus permitting the crude oil entrance into the life system involved.

We believe, that a more effective method of approach to this problem would be treatment of the oil spills by specially prepared HYDEC cultures (Hydrocarbon Decomposition). It requires research and special studies on how these may be applied.

We have been making hydrocarbon utilizing cultures for over 15 years, the following is a synopsis of our experience and background in the treatment of Hydrocarbon waste:

HISTORY OF MICROBIAL TREATMENT OF HYDROCARBON WASTES

Since 1952, we have manufactured and applied on a world wide basis more than 5,000,000 lbs. of various dessicated microbial cultures for the treatment of sanitary and industrial liquid/solid wastes.

Our hydrocarbon decomposition (HYDEC) cultures were first used in sanitary sewage plants that received large quantities of oil that either completely killed or impeded normal biological activity. Applications of our hydrocarbon (HYDEC) decomposition cultures are made in various petrochemical and refinery effluents to eliminate both oil and various specific organic compounds, as well as increasing the oxygen content and reduction of BOD. About five years ago we developed a method of treating oil contaminated bilges on mine sweepers of the U.S. Navy, Pacific Fleet, based in San Diego, California. As a result of the treatment, ships were able to pump an oil free bilge over the side without leaving an oil film on the surface.

About the same time we also conducted some other work with a major oil company on the West Coast using our HYDEC cultures to clean tankers while at sea that carried black oil. This work was never fully completed and at the time it was stopped, results were marginal and required additional development.

An eighteen year period of experience in development, manufacture and use of dessicated cultures on a world wide basis has shown the relative safety of these products. Our company and others that we are familiar with whose employees have been in daily contact with these products have had no problems in health resulting from daily contact with mixed groups of microbial families. The organisms in these cultures are saprophytes and under most circumstances are generally not invaders of the human body or considered causitive agents of human disease. In world wide use by mostly unskilled people, no evidence of human disease has ever been attributed to the use of the products of this type of manufacture.

Each gram of our HYDEC culture contains more than two billion ecologically balanced hydrocarbon utilizing organisms together with various component nutrients and some wetting agents that we have used over a 15 year period so that the organisms can more effectively break down the hydrocarbons at the oil/water interface.

Many of the organisms in our HYDEC cultures are adjusted for oceanic environments. Also, many areas in oceanic environments contain indigenous microfloral which can utilize complex hydrocarbons. However, where large oil spills occur, all of the life systems involved in the chain of events that utilize crude oil, are overcome because of the sudden and overwhelming amount of a substance that can only be used in minute amounts.

One of the other factors connected with the problem of pollution is the tremendous expansion of off-shore drilling operations. For the most part, the major oil companies operating on a worldwide basis have taken many precautions to prevent contamination of the areas in which they operate. However, on occasion accidents beyond their control do occur resulting with the release of substantial quantities of crude oil. Off shore drilling operations were formerly concentrated in the Gulf area and have now moved to the West Coast of the United States. Further expansion of off-shore operations will soon take place in some of the Great Lakes and the Eastern Coast of the United States. Off-shore drilling on the East Coast has already started in the neighboring waters to the north of us off the coast of Newfoundland. Petroleum geologist who have been studing the formations off that area believe that it continues down to the Bahama Islands. We may therefore anticipate petroleum production encircling practically all the coasts of the United States within the foreseeable future, say within the next five years.

Based on the preceeding information, you can see the vital necessity for implementing a research and development program designed either to alleviate or eliminate the economic consequences of massive accidental oil pollution on the Coast of the United States as well as it's Great Lakes, inland water ways, and inland lakes. The techniques require study and research to be made efficient and routine so that when such catastrophes occur. the information and methods of approach for alleviating the problem will be readily available.

We will appreciate any assistance your office may render to us. Congressman Blatnik, in obtaining federal funds so that we may continue to further the work that we have started and developed over so long a period of time.

Sincerely yours,

A. J. KRELL, *President.*

WILSON WATER PURIFICATION CORP.,
April 17, 1968.

Representative JOHN A. BLATNIK,
House Public Works Committee, House of Representatives, Washington, D.C.

HONORABLE SIR: We talked with Mr. Tobin with regard to filing a brief descriptive of the Wilson Anti-Septic Sewage Disposal System for watercraft. It was our idea to make sure that your committee understood there is competition in the field who have solved the problem of safe sewage disposal on the rivers and Great Lakes.

We therefore, respectively submit that our product is known as the Wilson Anti-Septic Sewage Disposal System. It cannot be classified as a macerator-chlorinator type, its design is a sort of hybrid or a cross between the holding tank and macerator-chlorinator. In this case the holding tank is a sterilizing tank, i.e. an "on board" disposal system. This apparatus, we believe is a complete answer to all of the troubles with macerator-chlorinators that were mentioned in the report handed down in Document #48, and to substantiate this we are submitting certain technical data and test reports, etc and will include drawings and descriptive matter.

We worked on this project for about four years, and since our conception of what a sewage treatment plant for watercraft should be, involved complete sterilization we soon found that it could not be done by maceration and chlorination only. Our final designs include Maceration, Filtration and Chlorination with rapid re-circulation.

Chlorine is the basic factor in the sterilization of sewage and it is a well known fact that chlorine cannot penetrate solids, therefore, maceration and re-maceration is used to break down the solids. The sewage then passes through a filter which stops any floating or unmacerated organic matter as well as inorganic particles, such as cigarette butts, fruit pits, fibrous matter, etc., with the result that the water comes through practically clear, and when in this condition chlorination can really do effective work.

This is no doubt the reason why with our installation at Hartford, Illinois, we get practically a sterilized effluent. The two reports of Scientific Associates, Inc. of St. Louis, copies of which are enclosed, September 22, 1967 and March 20, 1968, are very consistent and show that coliform, bacteria and suspended solids are almost nil, or far below any standard specifications as published to date by the U.S. Engineers, etc that remaining biological matter is negligible.

The only item left with any degree of uncertainty is the question of BOD and leading authorities (Olin-Mathieson) have published claims "that with 0.2 ppm chlorine after 10 minutes contact will reduce BOD of effluents by about ⅓". If the dosage at 4. to 6. ppm are used (our recommendations) the BOD would be reduced to an estimated 85%. However, BOD does not seem to be too much of a factor since any BOD remaining would be absorbed in the receiving waters.

The remaining undissolved solids and inorganic matter is all in sterile condition and may be removed about every two months by bilge pump. Both ends of the holding tanks have 2" drains and there are large openings on top. The filter is underneath a 20" manhole.

Wilson holding tanks are made in six standard sizes for tug boats and up to the largest lake ships. Capacities are based on approximately 75 to 90 G.P.D. per crew man. This includes all waste water from water closets, urinals, showers, galley sinks, laundry, etc.

When used on short run day time excursion boats we figure 4 gallons consumption per person per trip.

Peak load retention time, when all toilets are flushed within a few minutes, is never less than 30 minutes. When no toilets are being flushed and the macerator is running on the delayed timer the holding periods may run as long as 4 hours.

We are naturally interested in having Congress establish a standards committee which so far as watercraft is concerned will have to do with particle sizes and minimum (ppm) chlorine dosage.

Respectfully yours,

F. E. WILSON,
(Authorized Signature).

WILSON ANTI-SEPTIC SEWAGE DISPOSAL SYSTEM

Patents Applied for

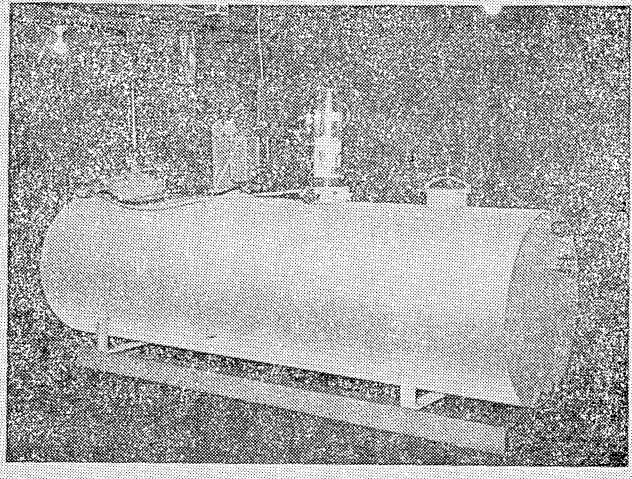
— MARINE TYPE —

BULLETIN SDS-M67

No phase of the pollution control problem is of greater importance than to bring a definite halt to the prevailing practice of discharging common sewage overboard from ships, boats, dredges, marinas and shore located industries.

The WILSON Anti-septic Disposal System is a complete and final answer to the problem. It is simple, practicable and reasonably priced.

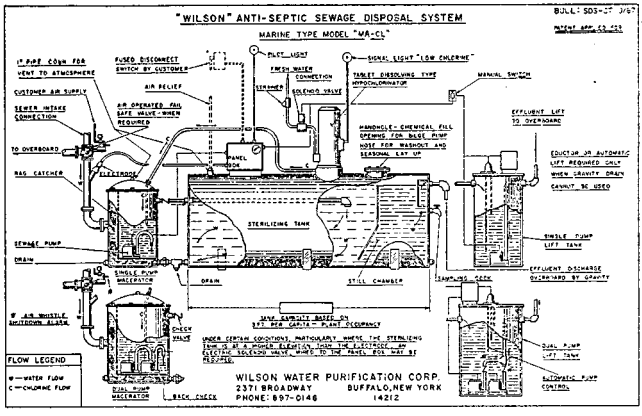
Handles all common sewage from toilets, urinals, showers, laundries and galley wastes.



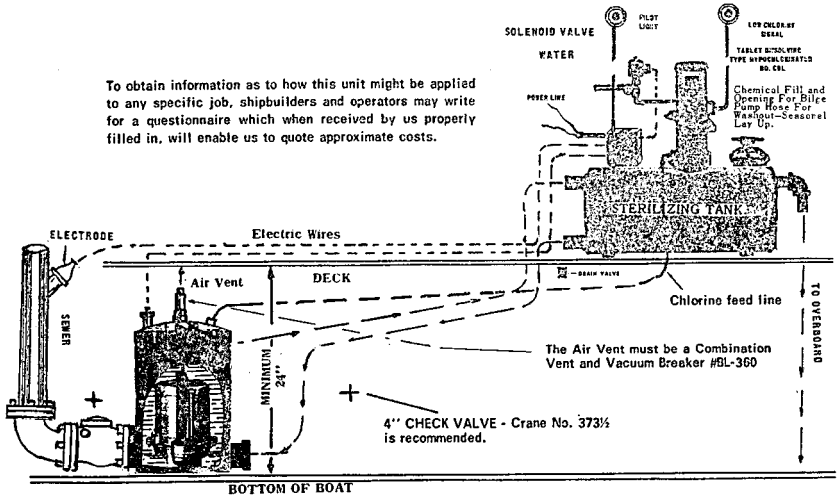
This WILSON unit, with integral macerator, is installed on a barge containing office and machine shop of National Marine Services, Inc., Hartford, Illinois, serving about 50 people.

To accomplish a wider range of applications, the macerator is ordinarily furnished as a separate component. See illustration on opposite side. The macerator may be placed at a remote location and at an elevation below the sterilizing tank as much as 12 to 15-ft. On all ships where there is no space available for the sterilizing tank, we will supply data as to how a skin or bulkhead tank may be put in. All installation components - macerator, hypochlorinator, etc. - are available without the sterilizing tank.

Much smaller units with integral macerators and small hypochlorinators are available for house boats and other small craft. Ask for information.



To obtain information as to how this unit might be applied to any specific job, shipbuilders and operators may write for a questionnaire which when received by us properly filled in, will enable us to quote approximate costs.



Illustrating how the macerator and sterilizing tanks may be located on different levels. The hypochlorinator may be placed in another place than on the sterilizing tank. On small jobs our positive displacement, electric hypochlorinator, Type PD, may be used. In such case the check valve and vent and vacuum breaker, above mentioned, must be used.

WILSON WATER PURIFICATION CORP.
Area Code 716 Phone: 897-0146
2371 BROADWAY BUFFALO, NEW YORK, U.S.A. 14212

INVESTMENT BANKERS ASSOCIATION OF AMERICA,
Washington, D.C., April 30, 1968.

Hon. JOHN A. BLATNIK,
House Office Building,
Washington, D.C.

DEAR CONGRESSMAN BLATNIK: The Investment Bankers Association of America would appreciate your including our enclosed statement regarding your Water Pollution proposal as part of the hearings on H.R. 15906. The enclosed statement represents testimony delivered by three of our representatives recently before the Senate Subcommittee on Air and Water Pollution.

If we can be of any further assistance to you or the members of the Committee please do not hesitate to write or call.

Sincerely,

ALVIN V. SHOEMAKER.

STATEMENT BY THE INVESTMENT BANKERS ASSOCIATION

STATEMENT OF ROBERT KRUMM, EXECUTIVE VICE PRESIDENT, EQUITABLE SECURITIES, MORTON & CO., NEW YORK CITY; WILLIAM SIMON, PARTNER, SALOMON BROS. & HUTZLER, NEW YORK CITY; JAMES LOPP, EASTMAN DILLON, UNION SECURITIES & CO., NEW YORK CITY

My name is Robert Krumm, Executive Vice President of Equitable Securities, Morton and Company, Chairman of the Municipal Securities Committee of the Investment Bankers Association. I ask that the following statements on behalf of our industry be made a part of the record of the hearings on H.R. 15906.

I would like to submit a statement on behalf of the 675 member firms of the Investment Bankers Association who are located in every State in the Union with over 2,000 branch offices. Collectively, they underwrite and distribute, and act as brokers for all types of Federal Government, corporate, and State, county, and municipal government securities. Our statement will be concerned only with that portion of H.R. 15906 which deals with the proposed new plans of financing the construction of waste treatment facilities.

Before going into the specifics of this proposal, we would like to lend our support to the efforts of the distinguished Congressman from Minnesota and others who have successfully pressed for solutions to the growing problems of water pollution in our streams and rivers. We believe that the new debt service contracts in lieu of direct grants, suggested in H.R. 15906, represent an imaginative and farsighted effort to provide maximum Federal assistance to communities of 125,000 or more in population that are willing to take on the task of cleaning up our Nation's rivers.

On the other hand, we strongly oppose the imposition of a Federal Government guarantee on the securities of States and local governments as a consideration of the waiver of their sovereign right of tax exemption. As a matter of fundamental principle, we believe it would be a serious mistake on the part of local government to waive voluntarily the tax exemption of interest on their bonds, regardless of purpose.

The proposed new Federal contracts to pay a portion of a community's debt service will provide maximum Federal assistance with minimum effect upon the Federal Government's already overstrained budget. Under this new proposed program, it is our understanding that the Federal Government will enter into contracts with communities with populations in excess of 125,000 to pay a portion of the debt service on their bonds issued to correct water pollution problems.

We agree that it is in the best interest of all concerned to leave the marketing of these securities to each participating community and metropolitan area. By allowing each bond issue to represent the efforts in a particular area or project, it will give the security distinct character. This will maximize, not only the marketing efforts of major underwriters in the national markets, but it allows participation by the regional firms who are expert in the distribution of securities in their particular area. This should make it easier to encourage local investment. Often, community and area pride in a particular project provides additional incentive for local investors to accept a lesser rate of interest.

It is our opinion, however, that the present proposal is unnecessarily complicated and it should be simplified. We agree that these communities should issue

their regular securities for the full cost of each project with the Federal Government agreeing to pay a portion of the debt service. This takes advantage of the already proven means of distribution through the regular municipal bond market.

Here is a market that already works well, having distributed over $14 billion of new bond issues in 1967. Assuming that the volume of municipal industrial aid financing is substantially reduced as a result of pending Federal legislation or regulations, no added pressure should be placed on the municipal market by this program.

The waiver by a participating municipality of its tax exemption is a very serious consideration regardless of the worthiness of the purpose. Its significance strikes the very constitutional foundations and relationships between local government and Federal Government. We are sure Congress is well aware that the significance of State of local government tax exemption extends beyond economic considerations, indeed it involves their very political sovereignty. If the Federal Government is willing to provide assistance to local government, only at the expense of their surrendering tax exemption, we doubt that this proposal can be justified.

This proposal is particularly important when viewed as a precedent for recent bills introduced by Senator Proxmire and Congressman Patman to create a Government corporation to guarantee municipal bonds issued for all purposes. Nevertheless, since the program outlined in H.R. 15906 is voluntary, the ultimate political decision rests with the local government units, not the investment bankers.

Because of the worthwhile purpose of this program, we sincerely hope that this one aspect—that of waiving the tax exemption—will not distract all of the interested parties in water pollution from seeing the benefits of this over-all proposal, particularly, when there may very well be advantages in operating this program on the basis of Federal contracts providing for a portion of the debt service of ordinary municipal bonds.

The first and most obvious advantage, previously mentioned, is using the proven capabilities of the existing municipal market. Well-formed patterns for the distribution of State, county and municipal securities have already been formed for every region throughout the Nation. Tax-exempt securities are mainly purchased by commercial banks, trust departments, casualty insurance companies, and individuals.

On the other hand, taxable securities, such as the proposed municipal bonds guaranteed by the Federal Government, would be of limited appeal to the normal purchaser of municipal bonds. Thus, a whole new market must be created for the proposed securities from among the existing purchasers of taxable debt.

Most of these purchasers lack initial expertise in the area of municipal finance, having had very little occasion to follow this market. Accordingly, the proposed Government-guaranteed taxable municipal securities would no doubt initially sell at higher interest rates, reflecting lack of investor knowledge and acceptability of the new instruments. In addition, these proposed new securities would have to compete with prime corporate issues. Prime corporate issues now are selling in the vicinity of six and three-quarters percent.

Present market conditions raise another potential problem. Most States and local units of Government have statutory or constitutional interest ceilings on that debt. For example, the State of Washington has a constituional six percent limit for borrowing by cities. In this case, it would require an amendment to the State constitution which would effectively block their participation for some time. These maximum net interest costs are geared for a tax-exempt rate of interest and the issuer would therefore, under present market conditions, be unable to issue securities at the higher taxable rate. This problem can be eliminated by the issuance of tax-exempt municipal bonds.

In addition, the creation of yet another Government-guaranteed taxable security will add further pressure on the already highly competitive market for individual savings. To the extent that such issues would divert flows of savings from savings and loan shares and mutual and commercial bank savings deposits, the ability of these financial intermediaries to make mortgage loans on both new and existing homes would be adversely affected. Thus, the unsettling process of disintermediation (transfer of liquid savings from institutions to the investment market) and the consequent very harmful implications for the home-building

industry would be further increased by the creation of such taxable municipal securities.

It does not appear that the continued use of tax-exempt municipal securities, as opposed to taxable municipal securities, would involve significant losses of revenue to the Treasury Department. As can be seen from the following table and the material that follows which was prepared by Mr. William Simon, Salomon Brothers and Hutzler, and Mr. Jim Lopp, Eastman Dillon, Union Securities and Company, among the likely large investors of these newly created securities are the pension funds and institutions which currently comprise the market for corporate debt.

NET ISSUES OF CORPORATE AND FOREIGN BONDS

[In billions of dollars]

	Year totals			
	1964	1965	1966	1967
Net issues	7.1	8.6	11.8	17.0
Net purchases	7.1	8.6	11.8	17.0
Households	−.8	−.3	1.2	1.8
State and local governments	3.2	3.2	4.4	6.7
Commercial banks	.1	−.1	.1	.8
Mutual savings banks	−.2	−.1	.3	2.0
Insurance	4.3	5.4	4.2	5.5
Life insurance companies	2.3	2.8	2.2	3.7
Private pension funds	1.6	1.5	1.9	1.0
Other insurance companies	.3	1.1	.1	.8
Finance N.E.C.	.2	.5	.4	−.6
Rest of the world	.2	(1)	1.2	.8

[1] Less than 500,000.

Source: Board of Governors of the Federal Reserve System; Flow of Funds, 4th quarter 1967, Jan. 31, 1968, p. 16.

Of the $17 billion net issue of taxable corporate debt in 1967, well over one-half of these bonds were purchased by investors who are subject to little or no Federal income tax. Precisely the same pattern is evident during the previous three years.

There are other major observations to be made with regard to the use of a Federal guarantee. First, if the Federal government did not guarantee these securities, it would lessen the degree of administrative responsibility placed upon the personnel of the Department of the Interior, since they would no longer need to make a determination that the issuing body was capable of paying off the debt. This risk would be assumed by the underwriting community.

Secondly, with a Federal government guarantee upon these securities, the market would have no need to concern itself with the underlying financial condition of the issuer. The decisions as to whether the community had overextended itself, had proper supervising personnel, needed to increase its revenues, adjust its tax base, etc., would have to be shared by the Federal government.

Under the present system, these economic decisions are made by independent financial analysts of competing underwriters and are not centered in any one particular person or agency. We strongly believe that the best interests of both the issuers as well as ultimate investors are better served by such a diversification of decision making.

This will be lost under a system whereby the Federal government guarantees each community's bonds, thus making the variation in interest rates very small, recognizing, as is the case with public housing bonds, there would be some variation between local government credits even with a Federal government guarantee.

For the above reasons, we believe that a system of regular bona fide tax-exempt municipal securities, with a debt service contract with the Federal government, will provide a superior credit instrument in the market. It can reasonably be expected to receive a lower net interest cost than would be the case in the absence of such underlying Federal support.

In conclusion, therefore, we would like to reaffirm our support of the basic proposal of Federal contracts to pay a portion of the debt service of State, county and municipal securities sold for sewage treatment facilities as a reasonable

means of solving the immense problems of water pollution. It would be a serious mistake for communities to set a precedent by waiving their sovereign right of tax exemption for any purpose.

Nevertheless, in the final analysis, the question as to the advisability of communities waiving their tax exemption is a political assessment which must be answered by State, county and municipal governments. As we have indicated, it is preferable to market these securities through the regular mechanics of municipal markets; however, if State and local governments should conclude that it is in their best interests to accept the proposals of this legislation and issue Government-guaranteed taxable securities, the members of our industry will certainly do their best to efficiently and economically underwrite such securities.

COMPARATIVE COST OF TAX-EXEMPT VERSUS TAXABLE METHODS OF FINANCING

This material was prepared by William E. Simon, a general partner, Salomon Brothers & Hutzler, in charge of their government and municipal bond departments. His firm's transactions totaled over $110 billion last year.

This statement will discuss briefly the comparative costs of tax-exempt vs. the taxable method of financing. Who is the consumer of the taxable issue and what is his effective tax rate? Mr. Krumm has already covered the advantages of the proven municipal tax-exempt method. Mr. Lopp will further enforce these arguments. My portion of the statement will concern itself only with comparative costs. Included as part of this statement are four charts labeled A, B, C, and D.

COMPARATIVE COSTS[1]

	Taxable	Tax exempt
Rate (percent)	6.5	4.875
Annual interest cost[2] to issuers	$65,000,000	$48,750,000
Less receipts from taxes on interest income (assuming 13.4 percent tax rates)[3]	$8,710,000	----------
Net cost[4] to issuers and Treasury combined	$56,290,000	$48,750,000

[1] Assuming $1,000,000,000 in Government bonds.
[2] Gross interest costs for taxable securities under the above rate assumptions would be $16,250,000 per $1,000,000,000 amount per year more than for tax exempts.
[3] However, tax on the interest income from the taxable securities would return $8,710,000 per $1,000,000,000 amount per year. There is obviously no comparable return on tax exempts.
[4] Thus there would be a net saving of $7,540,000 per $1,000,000,000 amount per year with tax exempts.

NET FUNDS INVESTED IN CORPORATE AND FOREIGN BONDS BY INVESTOR GROUP ARRANGED BY TAX BRACKET

Net volume of purchases of Corporate & Foreign Bonds

[Dollar amounts in billions]

	Total, 1966, 1967, and 1968	Percent contribution
Zero tax bracket:		
State and local governments	$18.1	----------
Private pension funds	4.4	----------
Total in zero tax bracket	22.5	56
1 to 20 percent tax bracket:		
Mutual savings banks	2.5	----------
Life insurance companies	9.1	----------
Total 1 to 20 percent tax bracket	11.6	29
21 to 50 percent tax bracket;		
Other insurance companies	1.3	----------
Commercial banks	.9	----------
Other finance	.1	----------
Households	2.1	----------
Rest of world	2.0	----------
Total 21 to 50 percent tax bracket	6.4	16
Grand total	40.5	100

Note: Average tax bracket: 13.4 percent.

[Dollar amounts in billions]

Investor group	Net purchases of corporate and foreign bonds				Percent contributions	Effective Federal tax rate	Effective taxable contributions
	1966	1967	1968 estimate	3-year total			
State and local government	$4.4	$6.7	$7.0	$18.1	44.7	0	0
Private pension funds	1.9	1.0	1.5	4.4	10.9	0	0
Subtotal No. 1				22.5	55.6		0
Mutual savings banks	.3	2.0	.2	2.5	6.2	18	1.1
Life insurance companies	2.2	3.7	3.2	9.1	22.5	20	4.5
Subtotal No. 2				11.6	28.7		5.6
Other insurance companies	.1	.8	.4	1.3	3.2	48	1.5
Commercial banks	.1	.8	.0	.9	2.2	48	1.1
Other finance	.4	−.6	.3	.1	.2	48	.1
Households	1.2	1.8	−.9	2.1	5.2	50	2.6
Rest of world	1.2	.8	.0	2.0	4.9	50	2.5
Subtotal No. 3				6.4	15.7		7.8
Grand total	11.8	17.0	11.7	40.5	100.0		13.4

Source: 1966 and 1967 net purchases are from Board of Governors, Federal Reserve System; Flow-of-Funds, Jan. 31 1968, p. 16. 1968 estimate is S.B. & H. projection.

STATE AND LOCAL SECURITIES

[Billions of dollars]

	1966	1967	1968 estimate
Gross new long issues	10.7	13.8	12.9
Federal public housing	.4	.5	.4
Total gross	11.1	14.3	13.3
Adjustment	0	−.1	0
Adjusted gross [1]	11.1	14.2	13.3
Less refunding	.2	.2	.1
Total, new money, new issue	10.9	14.0	13.2
Plus other long borrowing (estimate)	.1	.7	.8
Less maturities	5.5	5.9	6.2
Net increase in long-term debt	5.5	8.8	7.8
Plus increase in miscellaneous short debt	.4	.6	.5
Plus increase in P.H.A. short debt	0	.2	0
Change in total outstanding	5.9	9.6	8.3
Held in—			
Sinking funds (excluding investment funds)	.3	.2	.2
U.S. Government investment accounts	0	0	0
Net change in publicly owned debt	5.6	9.4	8.1
Owned by:			
Financial intermediaries			
Savings Banks	−.1	0	−.1
Life insurance companies	−.3	−.2	−.3
Fire and casualty companies	.8	1.2	.7
State and local retirement funds	−.3	−.3	−.3
Total, financial intermediaries	.1	.7	0
Commercial banks	2.4	8.5	5.0
Business corporations	.8	.5	.6
Individuals and miscellaneous	2.3	−.3	2.5
Total, net change in ownership	5.6	9.4	8.1

[1] Adjusted for payment date.

Chart A is the comparative cost on the taxable versus the tax-exempt method.

Chart B is a percentage breakdown of net funds invested in corporate taxable securities.

Chart C is the '66–'67 net purchases from the Board of Governors, Federal Reserve System "flow-of-funds" dated January 1968. The figures for 1968 are the Salomon Brothers and Hutzler estimate of taxable financing.

Chart D is a percentage breakdown of net funds invested in tax-exempt securities.

Chart A: In taking a taxable security with a Federal guarantee, we fortunately have precedent on rate comparison with the Federal National Mortgage participation certificate which is backed by the full faith and credit of the United States. Assuming a rate of six and a half percent, this is a fair rate for your highest grade taxable issue.

On the tax-exempt side of the coin, we have the Public Housing Authority guaranteed by the Government. This would, in our opinion, command a four and seven-eighths interest cost. Assuming the issuance of a billion dollars, the annual interest cost to the issuer is $65 million on the taxable side less receipts from taxes on interest income, assuming 13.4 percent tax rate, versus $48,750,000 on the tax-exempt side.

At this point please look at the method by which we calculated the 13.4 percent effective tax rate on Chart B. You will notice that in lumping '66, '67 and '68, $40.5 billion taxable securities were issued. Of the $40.5 billion issued, $22.5 billion were purchased by State and local governments and private pension funds which are in the zero tax bracket. This amount means that 56 percent of your total purchasers are in the zero tax bracket.

Mutual savings banks and life insurance companies, the second major group of purchasers, are in the 1 to 20 percent tax bracket and consumed 29 percent of the total taxable issues, or $11.6 billion.

If you notice on Chart C, the effective tax rate that we used for mutual savings banks was 18 percent. This is the maximum figure, and I think you will find that the majority of savings banks today would be closer to zero, rather than 18 percent, so we are obviously being very conservative.

The remainder of purchases of corporate securities, 16 percent of the total, are in the 21 to 50 percent bracket, comprising households, the Federal Reserve, and the rest of the world category. We put them in the 50 percent bracket which I think is quite conservative and on the high side.

Going back to Chart A, the Treasury would obviously, by going the tax-exempt route, lose $8,710,000 of additional revenue. However, the net savings on the one and five-eighths interest cost differential, would be $7.54 million per $1 billion amount per year on the tax-exempt method of financing. The $7.54 million does not reflect the additional cost of interest subsidy.

ECONOMIC IMPACT STUDY

My name is W. James Lopp II representing Eastman Dillon, Union Securities and Company of New York. On behalf of Eastman Dillon and myself, I wish to express our appreciation for the opportunity to submit a statement on H.R. 15906.

Last fall our firm was requested by the Federal Water Pollution Control Administration to prepare a study on the economic impact on affected units of Government of the cost of installation of waste treatment facilities. This study was called for by the Congress in the Federal Water Pollution Control Act, as amended. The study was submitted to the Congress by Secretary of the Interior Udall on March 12, 1968. I was the director of this report.

We were also requested in conjunction with the economic impact study to prepare a report suggesting an alternative method of financing the Federal grant program. Appropriations as a source of grants to local governments for the construction of waste treatment facilities had been falling behind authorized levels as a result of severe budgetary demands for other issues. I was also the director of this study, although Mr. John Mitchell, a leading municipal bond attorney, was greatly responsible for the actual drafting of the report. The study is available for the record if the Committee so desires.

First let me say that the concepts embraced in H.R. 15906 are necessary if our pollution abatement program is not to become mired down with delays at increasing costs. Many State and local governments are moving forward with their grant programs; others are in the process. As of last fall, twenty states had adopted a participating grant program.

As a result of working with many State governments, I am aware of an extreme despondency over the inadequate funding of the Federal grant program. The public and State legislatures have responded positively to the sense of urgency of protecting our Nation's water resources. If disappointed over their

expectations for Federal aid, the program may lose its momentum and be delayed or set back for some time to come.

H.R. 15906 seeks to alleviate these contingencies but while doing so creates just as serious a problem by attacking the long-standing precedent of tax immunity which State and local bonds have traditionally enjoyed.

Many reasons have been set forth as justification for the provision of taxable bonds. One position has been that tax exemption costs more to the Federal Government than communities gain in lower interest costs. This posture was questioned seriously by Mr. Simon. Another argument espoused has been that the impact of this program would place great strain on the tax-exempt bond market.

However, I believe this point needs further elucidation. In examining the ability of the affected units of governments generally to finance capital outlays, and more particularly to attain the water quality standards established by the Federal program, it is necessary to consider the projected supply of borrowings and the availability of investable funds from institutional sources to meet these demands.

The estimates prepared for the Joint Economic Committee of required net additions to the volume of municipal obligations and the supply of net new investable funds for the period 1966–75 appear in the JEC Study, State and Local Public Facility Financing, Vol. 2, p. 21.

The figures indicate that funds available for investment in municipal bonds will be more than sufficient to meet the required borrowings by State and local governments after 1968.

Relating this analysis to water pollution abatement, the Federal Water Pollution Control Administration (FWPCA) estimated the cost of attaining the objectives set forth by the Water Quality Act at $14.9 billion for the period 1969–73, or an approximate annual average of $3.0 billion before any Federal grants.

This compares with the Joint Economic Committee's estimate of average capital outlays for approximately the same period of $2.0 billion, or an average annual difference of $1.0 billion. While no one could emphatically deny the increase volume might not have some effect on the bond market, the results should be minimal.

The Clean Waters Restoration Act authorizes $3.5 billion in grants, roughly $306 million of which have been appropriated leaving an amount still authorized to be appropriated of approximately $3.1 billion. If this balance of Federal grant money were raised on a level basis for the 1969–73 period through the sale of tax-exempt bonds, it would amount to only $600 million a year, or 3.2 percent of the JEC estimate of the average tax-exempt bond market for the period.

This is an amount which I believe this group would agree will have no measurable degree of impact on the bond market.

This bill is also weak with regard to another important consideration. Most pollution abatement projects include the needed sewer systems and other attendant facilities which will not be eligible for the Federal guarantee.

What this means is that many communities will have to incur the expense of two bond issues for the same project. Since the FWPCA currently provides no grants for sewer systems, perhaps they should consider a guarantee of this portion of a project to alleviate the expense and confusion of two separate bond issues.

Additionally, many local governments will encounter constitutional or statutory rate limitations or, as exists in some States, be restricted from issuing revenue bonds. The use of revenue bonds is indicated by the compulsory requirements of user-fees.

Also the provision that the interest subsidy shall not exceed an amount which would reduce by one-fourth the net effective interest rate is restrictive in that it does not assure local government that the increased interest costs of taxable bonds will be fully offset by the Federal subsidy.

It is also unclear as to the reasoning for tying the interest subsidy to the Government bond market. In the first place, the Government is limited to a four and one-fourth percent interest ceiling and has not issued bonds for five years. It would seem much more reasonable to tie the subsidy to a municipal bond market indicator such as the "Bond Buyer Weekly Municipal Averages."

We also question the program's availability to population sizes of only 125,000 or larger. FWPCA figures show that cities of less than 25,000 and which represented 20 percent of the U.S. population in 1960 will account for 52 percent of 1969–73 capital outlays for sewer systems and waste treatment facilities. As the

bill is written, many of the smaller communities which would benefit under the program will be eliminated.

At this time I shall summarize in the briefest fashion the financing plan we proposed to the Department of the Interior. The concept was basically developed from the United States Housing Act of 1937, as amended. The proposal would work as follows:

The Federal Water Pollution Control Administration or other designated Federal agencies would undertake by contract to make annual contributions to the local government which are sufficient to amortize obligations issued by the local government in principal amounts equal to the determined Federal share of the cost of the treatment facilities.

The maximum period over which such annual contributions could be payable, and the obligations of the local government amortized, should be determined by the enabling legislation but relate to the useful life of a waste treatment facility.

The program also anticipates utilizing a loan program patterned after the United States Housing Act of 1937, as amended, and of the Urban Renewal Program, authorized by Title I of the United States Housing Act of 1949, as amended.

Under the authorization of a Federal loan program and a program for the payment of annual contributions, a local government with requisite powers would be assured of having both the means to assure the financing of the total project cost as needed, as well as a method to synchronize the timing of the Federal financial assistance portion. The general procedure that a local government would follow in financing a project in this way would be as follows:

One, enter into a loan and annual contributions contract with the FWPCA. Two, undertake the temporary financing of project cost, as required, by the issuance of notes secured by a requisition agreement with the FWPCA. Three, renew outstanding notes initially issued at maturity and issue new notes to finance additional project cost, all or said notes to be similarly secured by a requisition agreement with the FWPCA.

Four, upon determination of final project cost, undertake the definitive financing of the project and the retirement of all outstanding notes. The notes would be retired from the proceeds of bonds issued by the local government. Bonds so issued would constitute two series or issues, one secured solely by and payable from the annual contributions payable to the local government by the FWPCA and the second, representing the portion of the cost of the project to be provided locally, payable from such sources as ad valorem taxes, revenues, and assessments, as the local government may elect or be authorized to provide.

Again, we would like to thank the members of the Committee for the opportunity to present the views of the Investment Banking Industry on this subject.

NATIONAL AUDUBON SOCIETY,
New York, N.Y., April 24, 1968.

Representative JOHN BLATNIK,
House Subcommittee on Rivers and Harbors,
Rayburn House Office Building, Washington, D.C.

DEAR MR. BLATNIK: I was unable to appear at the Water Pollution Control Hearings April 24 to represent the National Audubon Society in a panel of conservationists because bad weather prevented me from flying Washington as I had planned to do.

Enclosed are some copies of the statement I had hoped to make. We would appreciate it if you would make this statement part of the hearing record.

Yours truly,

ROBERT C. BOARDMAN,
Director, Public Information.

STATEMENT BY ROBERT C. BOARDMAN

I would like to emphasize two points.

One is that, biologically speaking, the most productive parts of the sea are the coves and bays and estuaries and marshes and tidal flats at the water's edge—what we call the estuarine areas. The ocean depths are comparatively barren. By far the richest profusion of marine life grows in the shallows where the fresh water meets the salt.

My second point is that these same estuarine areas are the part of the sea that is most vulnerable to pollution, and most frequently damaged by it. They are our most heavily used waters, and pollutants there cannot be dispersed and dilluted as they can in open waters.

The most obvious value of unpolluted coastal waters is recreation. Swimmers, water-skiers and yachtsmen want clean water; duck hunters, fishermen, clammers and crabbers want productive waters. These are certainly important values for human enjoyment, and they support considerable economic values, like high-priced waterfront real estate development, marinas, bait & tackle shops and all the rest.

More important, we believe, is the value of the estuarine areas in producing food for mankind. Acre for acre, estuarine areas generally support far more life than the richest farmland. It has been estimated that *two-thirds* of the food that man takes from the sea depends, directly or indirectly, on these areas. Either the fish (or shellfish or crustacean) lives entirely in these shallow and protected waters—or it spends some part of its life cycle there—or it lives outside but feeds on marine life that comes from there.

On suburban Long Island, New York, an area I happen to be personally familiar with, the economic value of these marine-related recreational and commercial activities has been estimated at $430-million a year. But conservationists believe there is more to be alarmed about than economic costs. We believe it is nothing less than a matter of human survival.

Hunger is already a way of life for a large part of the world's population, and by even the most conservative projections of population trends, the next decade will bring hundreds of millions more mouths to feed. Some say that only by scientific harvesting of food from the sea can we hope to stave off famine of the most frightul proportions. Certainly it is foolhardy, in terms of human existence, to let pollution erode away the richest food-producing areas of the sea.

The estuarine area is threatened all along the coast. In the big harbor cities, with large numbers of ships and boats on the water and with dense industrial and housing development along the waterfront, we have become accustomed to pollution. But with the phenomenal growth of pleasure craft in the past decade (there are some 8,000,000 of them now) and with our growing and affluent society searching out more and more waterside resorts, the flow of sewage and other pollutants is contaminating the little harbors and bays too.

Oil pollution is a particular menace to the estuarine areas. Oil spills at sea generally wash ashore with the wind and tide, and collect in the shallows and on beaches. A coating of oil left by the retreating tide can blanket plant life and shellfish on the bottom, and, floating on top, foul the feathers of the sea birds. Furthermore, detergents which have been used in many cases to clean up the oil have inflicted more damage to shellfish and other marine life than did the oil.

Estuarine areas, too, are often the victims of oil spills from waterside installations, where tankers and barges unload and tank-trucks load, and carelessness can cause pollution.

We are concerned about any discharge into the estuarine area that inhibits life there. This includes so-called "thermal pollution" that can occur when hot water from the cooling system of a power plant is poured into the bay, raising the temperature and affecting marine life. It includes the oxygen-reducing effects of undue amounts of fertilizer washing off fields into the water ways, or poisoning by the long-lasting types of chemical pesticides that wash off fields and orchards, or anything else that upsets the productive balance in these areas as well as the obviously destructive discharges of some industrial processes and health-menacing discharges of sewage. And of course, we are also concerned about pollution in rivers, lakes and other waters.

In this brief statement there is no room or detailed discussion of the pollution-control bills under your consideration. In general terms, the National Audubon Society supports legislation to force more responsibility upon oil carriers and shore installations; to support research—particularly on how to cope with oil spills on the high seas, a problem which we believe will continue to be more difficult than finding out how to contain and remove oil spilled on calm waters in harbors—and to aid and encourage state and local action to control pollution.

As the representative of a national conservation organization, I came here to stress those two points I made at the outset: that estuarine areas are a highly valuable resource and that they are particularly vulnerable to destruction from pollution. Particularly, I have emphasized the importance of this area in sup-

plying the food man takes from the sea. We cannot afford to destroy any more of it—the human race needs it to survive.

Thank you.

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D.C., May 26, 1968.

Hon. GEORGE H. FALLON,
Chairman, Committee on Public Works,
House of Representatives,
Washington, D.C.

DEAR MR. CHAIRMAN: Enclosed is a statement in support of H.R. 16559, a bill I have co-sponsored to amend the Federal Water Pollution Control Act.

I would greatly appreciate it if you would include this statement in the record of hearings concerning this and similar legislation.

Thank you for this and for all past courtesies.

Sincerely,

THOMAS P. O'NEILL, Jr.,
Member of Congress.

STATEMENT OF HON. THOMAS P. O'NEILL, JR., EIGHTH DISTRICT OF MASSACHUSETTS

Mr. Chairman and distinguished Members of the Committee, I appreciate this opportunity to present a statement in favor of strong anti-pollution legislation.

I would like to commend this Committee for the work it has done to bring about a solution to the grave problem of coastal oil pollution.

The large number of accidental and sometimes deliberate dumping of oil on both the high seas and territorial waters threatens major pollution damage to some of our finest beaches, to fish and waterfowl along our coasts.

In 1967, several incidents involving oil tankers caused damage to some of Europe's finest beaches and did great harm to seafood resources. We are now facing the prospect of similar injury to our Nation's coastal recreation areas and fish beds.

Oil tankers now account for more than 40% of our ocean traffic. We should act now to provide the necessary machinery to prevent damage from the accidental or deliberate spilling of oil.

We must delegate the authority to have oil slicks eliminated immediately and have a legal deterrent to prohibit the discharge of oil upon the navigable waters of the United States, or adjoining shorelines, or into the waters of the contiguous zone.

H.R. 16559, which I have co-sponsored, fills the need for strong legislation, and would provide the machinery for immediate act to prevent injury from oil discharge. By instantly delegating authority to the Secretary of the Interior and to the Coast Guard, this legislation would insure the elimination of oil slicks while investigations as to cause were being conducted. The fatal delay that often occurs while blame is being laid, would be avoided.

I urge the Committee to give favorable consideration to this much-needed legislation.

Thank you.

VIEWS AND COMMENTS ON H.R. 15907, THE WATER QUALITY IMPROVEMENT ACT OF 1968, BY JAMES B. COULTER

Mr. Chairman, members of the Committee, I am James B. Coulter, Assistant Commissioner for Environmental Health Service, Maryland State Department of Health. I am pleased to have this opportunity to comment and present my views on H.R. 15907, the Water Quality Improvement Act of 1968.

Citizens of Maryland treasure their water resources which have contributed so abundantly to the wealth and enjoyment of the nation as well as to themselves. It is not surprising then, that the State has moved aggressively to curb water pollution and has shown an unstinting willingness to meet the cost of pollution control measures.

For 20 years the program has improved step by step, always moving in the direction of a stronger Federal-State and local effort. County commissioners have supported State and local legislation with unanimity and consistency seldom seen on any issue. The State Legislature has faced controversial issues and adopted

measure after measure, clearly accepting the fact that water pollution control is a State as well as a local responsibility. Maryland's congressional delegation over the years has rallied to the cause and made major contributions to the progressive evolution of the Federal Water Pollution Control Program. I am pleased to note that along with Mr. Blatnik, Mr. Fallon of Maryland is a cosponsor of H.R. 15907, the Water Quality Improvement Act of 1968.

In this atmosphere of joint local, State and Federal effort, the step by step improvements in Federal legislation have stimulated corresponding improvements at the local and State levels. At this time, Maryland's program includes the following salient features:

1. Strong regulatory and enforcement powers are exercised when necessary at the State level.

2. County commissioners are authorized to create countywide sanitary authorities and more than two-thirds of the counties now have such an arrangement in effect.

3. It is recognized that planning for water and sewer services is a responsibility of elected officials who must make major financial commitments to implement the plans; therefore, a State law requires that comprehensive plans be prepared at the county level and approved by the State as a condition to financial support after 1970.

4. As they are developed, State agencies coordinate county plans as the first step toward the development of regional and river basin programs.

5. Every wastewater treatment plant in the State, industrial as well as municipal, must be under the supervision of a certified competent superintendent by 1970.

6. This year, the State sponsored the training of more than 200 treatment plant superintendents at evening courses in junior colleges and a curriculum for a two-year, full-time course is being developed and will be put into use in 1969.

7. The State shares the cost of sewage treatment plant construction and gives the county commissioners and town councils a guaranteed financing formula that they can depend on.

In some respects the Water Quality Improvement Act of 1968 would further strengthen Maryland's program. The provision for a comprehensive estuaries study is especially welcome. Knowledge in this area is lacking and is sorely needed in Maryland where a large proportion of extremely valuable waters fall into the tidewater and wetlands categories to be included in the study. I wonder, however, if the magnitude of the task has not been grossly underrated. In Maryland alone, we have more than 4,000 miles of tidewater shoreline and approximately 340,000 acres of wetlands, much of which would be included in the estuaries study. A more realistic date for the final report might be January 30, 1980 instead of the 1970 date proposed in Section 5(c). Likewise, I am of the opinion that the cost of the total study, considering all of the estuarines of the United States, will be $25,000,000 rather than the $2,000,000 authorized in Section 5(e).

I strongly endorse the provisions of Section 6. The continuation of viable research, demonstrations, investigations, training, and information elements of the program at the Federal level are vital to the efficiency of State and local programs. A person dares not dwell on the duplication of effort and competition for scarce technical talent that would develop if each State were forced to duplicate these activities now centralized at the Federal level.

I regret to inform you, however, that in my opinion certain proposed changes in the construction grant provisions will not benefit our joint efforts in Maryland. In fact, the proposed changes would almost certainly cause confusion and serve to retard the rate of progress which is being made.

Over the years, the construction grant program of the Federal Water Pollution Control Administration has been highly successful. In discussions with other Federal agencies we have often cited it as a desirable example. Even though funds appropriated to support the Federal construction grant program have never been great enough to match the willingness of Maryland's communities to construct water pollution abatement works, the grants have had a powerful stimulating effect. The 1966 amendments were particularly helpful. The provision for repayment of State funds advanced to cover deficiencies in Federal grant offers made it possible for Maryland to arrange a financing formula combining State and Federal funds designed to eliminate our backlog needs for municipal sewage treatment plants by 1971.

This notable goal is possible because, from the first Federal enabling legislation in 1957, Maryland has made an outright grant from State funds for every water pollution abatement project that received a Federal grant offer. Cooperation with Federal officials has been a model of excellence, and with their help the State program has been liberalized through successive acts of the General Assembly to keep pace with the advancing Federal program. A highly effective formula has evolved whereby Maryland guarantees that a 75 percent combined Federal-State grant will be made available to every eligible project whenever a community is willing and able to proceed.

By an overwhelming majority, the last session of the General Assembly enacted the Governor's water pollution control program which provides:

1. An outright 25 percent grant from the State for every project receiving a Federal grant offer.

2. An advance of any deficiency in Federal funds to meet the Federal offer. Maryland is fully qualified under the Federal Water Pollution Control Act, and therefore, every community is eligible for a 50 percent Federal grant. (Thus, the guaranteed Federal-State combined grant is 75 percent, with the full amount made available from State funds at the time the community is ready to proceed.) This guarantee is possible even though the Federal funds available at this time are equal to less than 7 percent of the eligible cost of approved projects.

3. The bonus for comprehensive planning awarded under the Federal Act goes to the community with prepayment from State funds. (Thus, many communities are guaranteed an 80 percent combined grant.)

4. When a Maryland community is awarded a Federal grant to demonstrate new or improved sewage treatment methods, the State shares the non-Federal portion of the cost equally with the community.

5. Funds have been set aside to meet the non-Federal cost of water pollution abatement works at State-operated facilities without going through the time-consuming project by project budget justification in the annual State budget.

6. Four million dollars has been authorized to match Federal grants for river basin projects under section 3(c) of the Federal Act.

7. Twenty-five million dollars has been placed in a revolving fund to make long-term, low-interest loans to finance the extension of sewers and other works not eligible for Federal grants.

8. Other provisions of the State Act are included to provide for a fully effective Federal-State-local program.

As illustrated by the points enumerated above, Maryland's program is intimately geared to the Federal program thus heightening our concern over the adverse impact that a few changes proposed in H.R. 15907 might have. For instance, every project found to be eligible for a Federal grant must receive State support. To relieve communities of the high interest cost involved in obtaining construction loans, Maryland advances 25 percent of the grant eligible portion of a project's cost as soon as contracts are let. Otherwise, the State accepts the inspections and audits of the Federal Government and payments from State funds are made when Federal payments are authorized. Throughout, effort has been made to prevent duplication of work and eliminate confusion caused by multiple sets of possible conflicting regulations by simply accepting the Federal regulation and procedures. Adherence to this principle has resulted in substantial reduction of administrative costs and time delays in processing grant applications.

Commenting specifically on the provisions of H.R. 15907, Section 2(c) eliminating the prepayment provision authorized by the 1966 amendments would be a cruel blow to our program. Maryland's law established a sanitary facilities fund. Monies received from the Federal Government at a later date in payment for funds advanced by the State to cover the Federal portion of a grant are returned to this fund. Thus monies repaid by the Federal Government are placed in a fund which is used solely for sewage treatment works and are not returned to the general revenue of the State. Predicated on the trust and assumption that Federal appropriations would match the authorized amounts as soon as the current financial bind is resolved, repayment of Federal advances to the sanitary facilities fund will guarantee our communities a 75 percent State and Federal grant for approximately 10 years.

This purpose might be accomplished under the contract arrangement of Section F(1) provided that the tax exempt status of State funds could be preserved.

Money for the sanitary facilities fund comes from the sale of general revenue bonds and are repaid from real estate taxes. When the State borrows money through the sale of bonds, the funds from that one sale may be and usually are allocated for a number of purposes. Outside of the constitutional issue, it would greatly increase the administrative cost if a specific type of bond were sold only for the specific purpose of constructing sewage treatment works.

Although I recognize that our situation does not prevail throughout the country, the contract provisions would not be attractive to our local communities. If the premise is accepted that each of the partners, Federal, State and local, is obligated to share in the cost of treatment works, it is somewhat incongruous to visualize our local communities in the role of banker for the Federal Government. Almost without exception they are having difficulty funding many high priority needs including schools, hospitals, and other public improvements as well as sewage treatment plants within the debt limitations imposed by charter or constitution. Under the grant arrangement in Maryland, a community must now raise only 25 percent of the eligible cost of sewage treatment works thereby relieving part of their bonding capacity for other needs. Under the contract arrangement, the local community would be obliged to sell bonds amounting to 75 percent of the grant eligible cost.

Section 2F(3) is particularly objectionable. To single out bonds sold to finance sewage treatment works and require that they be taxable has the effect of taxing sewage treatment works. The sale of this specific type of bond might not be permissible in Maryland and would certainly increase the administrative cost of financing. The interest rate on these bonds would be considerably higher than the interest rate on tax free bonds. If the excess cost is rebated by the Federal Government as proposed, it is difficult to see where this vastly complicating factor would provide revenue to the Federal Government. If fact, when administrative costs are considered it is difficult to see anything other than a net loss of revenue resulting from making the bonds taxable.

In general, we agree with the provisions of Section F(5) commencing on Page 5 of the bill. (There seems to be a confusing duplication of numbering commencing with (4) at the bottom of Page 7.) If the contract provision is accepted, it probably should be limited to larger towns and metropolitan areas. We are particularly pleased with paragraph (B) which will strengthen both the Federal and State hand in requiring communities to move in a coordinated and comprehensive fashion toward the development of areawide waste treatment systems.

Paragraph (C) is bothersome. The collection and treatment of wastes with the objectives of convenience, esthetics, and protection of health and prevention of nuisances are local in nature. That portion of the total costs required to meet those objectives should be reflected in charges borne directly by the persons using the sewerage system. However, the benefits implicit in meeting the high water quality standards established for the State of Maryland are widespread and general in nature. I believe that the charges made to meet these higher standards should not be borne solely by the users of the system but should be shared by the State and Federal Governments. For instance, a town on the north branch of the Potomac River might be required to remove phosphorous to help eliminate the threat of eutrophication in the Washington Metropolitan Area so that the river in the vicinity of our Capital remains a show place for the Nation. While as a citizen of the Nation, the mayor of that town might accept that objective and be willing to pay for it through State and Federal taxes, he would have a hard time convincing his council and the citizens of his town that they should bear the cost alone.

Perhaps the illustration is oversimplified or, on the other hand, understated. The point is that, unlike other utility services, the rates charged for sewage treatment under our modern concept of water pollution control should not reflect the entire cost of water pollution control works nor should they reflect the entire cost of operation and maintenance.

I support the provision of Section 2(g) which give the Secretary authority to require efficient operation of sewage treatment works as a condition for Federal assistance. Further, I suggest that any doubt concerning the application of the provisions of (g) (1) and (2) to the grant portion of the act be eliminated by substituting this wording for the rather general provisions now contained in Section 8(c) of the Act.

In summary, I laud the purposes of the Water Quality Improvement Act of 1968 designed to strengthen and improve the national water pollution control

efforts at all levels of government. I am apprehensive that the time and cost factors of the comprehensive estuaries study have been grossly underestimated. With all due respect, the "contract" proposal should be carefully reevaluated from the standpoint of its compatibility with local financing practices and its potential for assisting ongoing State programs. Abandonment of the "repayment" provision and loss of tax exempt status for bonds sold to finance pollution control works are particularly damaging features. I would prefer to see the construction grant changes (contract features) deleted entirely if the inclusion of the loss of repayment possibilities and the loss of tax exemption are non-negotiable conditions for passage of that portion of the bill.

I have one further suggestion not specifically related to H.R. 15907, but nonetheless germane. Perhaps the time has come for careful examination of the method of financing Federal grants for water pollution control projects. The size of the anticipated expenditures that will be required to meet the national objectives may be too great to continue to absorb from current revenue. There could be merit in examining specific sources of revenue that might be developed and earmarked to pay for these works. One beneficial result might be a more direct relationship between those benefiting from clean water and those paying the bill for water pollution control.

STATEMENT OF SPECIAL COMMITTEE OF THE MARITIME LAW ASSOCIATION OF THE UNITED STATES

Mr. Chairman and members of the committee, the Maritime Law Association of the United States (herein "MLA") is an organization of about 2,000 members, founded in 1899, whose members are engaged in every possible facet of maritime law, including representation of substantially all American shipowners operating passenger vessel, general cargo vessels, tankers and other bulk carriers engaged in the foreign and domestic trades of the United States, as well as their underwriters. The representation also includes licensed and unlicensed seamen.

At a meeting of the Executive Committee of the MLA on February 19, 1968, the following members of our Association were appointed to constitute a Special Committee to report and make recommendations on H.R. 14000. The Special Committee members are John F. Gerity, Chairman (Member of the Executive Committee); Burton H. White, Member (Chairman, Committee on Limitation of Shipowners' Liability); and Gordon W. Paulsen, Member (Chairman, Committee on Matters Concerning the Coast Guard Regulations).

At the Annual Meeting of the Membership of the MLA on May 3, 1968, the aforesaid Special Committee was given authorization to present the views of the MLA to this Committee.

The MLA is in complete sympathy with the task of this Committee and offers its cooperation and good offices to enact meaningful and enlightened legislation to prevent and alleviate those damaged by the pollution by oil of the navigable waters and shorelines of this nation.

This Special Committee has reviewed drafts of the testimony before the Public Works Committee of the House of Representatives and drafts of proposed changes in H.R. 14000 as put forward by the American Petroleum Institute (herein "API") and to the extent indicated below approves and endorses such proposals. It must be borne in mind however that the views of tne API are necessarily circumscribed by tne interests of the oil industry. That institute has emphasized excessive liability for shipowners and through possible inadvertance negated by exclusion shore installations from the subject coverage of H.R. 14000. The MLA, on the other hand, is concerned with the welfare of the entire maritime industry and maritime personnel. Accordingly, in suggesting revisions of the proposed legislation the MLA has sought to promote the Congressional intent of preventing oil pollution of United States waters in a manner which will not unnecessarily penalize the American Merchant Marine and punish maritime shipboard employees. The MLA, mindful of the precedents established in Anglo-Saxon jurisprudence, takes a broad view of the problems confronting this Committee and is hopeful that the suggestions made herein will be helpful in preventing oil pollution while at the same time that the resulting legislation will not unduly hurt the maritime industry or depart from long established and cherished principles of law.

The Membership of the MLA has respectfully authorized us to present the following points:

1. Any liability including liability for clean-up costs must be based on negligence, namely an admission or on a finding of fault;

2. The principles of limitation of shipowners' liability upon proper proof of the right by law to claim limitation of liability must be preserved for the well-being of the maritime industry which in turn is essential for the interest of domestic and foreign commerce and for the economy of this nation. However, we do assert that it is time for the United States to increase the limits of liability upon reasonable and realistic terms as provided by the principles of the "International Convention on the Limitation of Shipowners' Liability", written at the Diplomatic Conference on Maritime Law, Brussels, September 30–October 10, 1957, (the "Brussels Convention, 1957").

3. The bill as presently written is probably not insurable. If insurable the premiums would doubtless be exorbitant.

4. Compulsory insurance should not be required for any law on this subject.

5. Penalties against a person's professional license or document should only be imposed on proof of negligence—so also, the other penalties proposed in the present bill except where the unlawful act of omission is willful.

I. LIABILITY IN CONNECTION WITH OIL POLLUTION SHOULD ONLY BE IMPOSED UPON A FINDING OF A FAULT

Section 19(e) of the Bill imposes upon shipowners liability to the United States, for the full cost of removal of oil in addition to the other penalties provided under the bill. The only exception under subsection (e) is a discharge due to an Act of God. Thus, irrespective of fault, shipowners would be compelled to bear the cost of clean-up in all cases except an Act of God.

The imposition of liability irrespective of fault is unquestionably contrary to every well-settled principle of our law, the general maritime law and the laws of practically every maritime nation. Before any person may be held liable under the proposed statute it should be required that his legal responsibility for the occurrence and damages be established, and that such liability be based upon an admission of or finding of negligence or willful violation of the statute. Under the proposed bill a completely innocent shipowner would be subject to the severe civil and penal burdens of the bill even though responsibility should have been properly imposed *prima facie* or on proper proof on another. To punish for wanton, willful or even negligent dumping of oil is one thing; to impose total and excessively costly liability in the absence of fault or even knowledge is another thing altogether.

Assume that a vessel, proceeding on her proper course, overruns an unmarked sunken wreck, or a vessel moored to a wharf comes to rest on a sunken obstruction with the ebb of the tide, as a result of which the vessel's tanks are breached and oil leaks onto the water. Under H.R. 1400 the shipowner would be liable for the clean-up or otherwise responsible to the United States Government for the cost of clean-up, and his vessel would be subject to *in rem* liability and a $10,000 penalty even in the absence of fault and notwithstanding that responsibility may properly rest with the United States for failure to take appropriate action with respect to the sunken wreck or that liability may ultimately be properly imposed on the wharf owner for failure to provide a safe berth.

Obviously, the penal provision of subsection (d) should not apply to accidental discharges of oil. Such a penalty if necessary, should at most apply to negligent discharges. But, even more important, in view of the substantial costs of clean-up which may be involved, an innocent shipowner should never be subjected to such expense in the absence of wrong doing on his part. Such imposition of liability is not only out of harmony with economic realities but is also contrary to settled principles of responsibility under martime law.

Subsection (i), without regard to willful acts, but upon mere violation of the provisions of the bill, provides for the arrest and taking into custody of alleged violators, with or without process. Further, under subsection (g), also without regard to volitional acts, the licenses of the master and officers of an allegedly offending vessel are subject to suspension or revocation. In effect the bill establishes an oil pollution police department authorized to place persons under arrest without process. What will be the effect of such legislation on foreign mariners and their governments? It is foreseeable that legislation by other

countries may be enacted in reprisal. The consequences of alleged violations under the bill, although not willful, are arrest and incarceration possibly without process, and loss of one's license which would mean the loss of one's livelihood for self and family, all in consequence of an unintended act of negligence or even without a suspicion of negligence. It is inconceivable that such harsh and perhaps unconstitutional consequences could be the legislative intent.

API has proposed that shipowners be required to produce proof of financial capability to pay the severe financial burdens proposed under the bill. The MLA urges that such a provision not be enacted into the law. Such a requirement is not a workable way to cope with the problem at hand, unless it is done on the basis of an international convention. If required unilaterally by our government, not only from U. S. flag vessel owners but owners of foreign flag vessels trading into our ports, retaliatory measures could well be expected to be taken by other nations. The lack of uniformity could create almost insoluble problems in providing insurance coverage. However, should it be deemed advisable that proof of financial capability be required, a usual certificate of insurance or certificate of entry with a recognized insurance carrier or club should be acceptable, provided however, that compulsory insurance should not be required. Such a requirement affecting the ships of many nations is unnecessary and arbitrary. The *in rem* rights against the vessel are preserved in the proposed legislation.

The costs of insurance to cover the liability without fault as suggested under the bill could well be prohibitive, if obtainable at all (see transcript of testimony of April 24, 1968 hearing, pp. 452 and 470 B). This combined with the fact that H.R. 14000, as drafted, negates any right on the part of a shipowner to limit its liability creates an uninsurable situation, because exposure to risk cannot reasonably be measured.

II. LIABILITY TO THE UNITED STATES FOR CLEAN-UP COSTS SHOULD BE SUBJECT TO A SHIPOWNER'S RIGHT TO LIMIT LIABILITY—BUT THE UNITED STATES LIMITATION LAW SHOULD BE BROUGHT INTO CONSONANCE WITH THE INCREASED LIMITS OF THE 1957 CONVENTION.

As above stated, the MLA supports reasonable legislation designed to prevent oil pollution and provide a proper measure of liability therefor. However, the majority view is that MLA is unalterably opposed to the destruction of a shipowner's right to limitation of liability.

All maritime nations provide for some form of limitation of a shipowner's liability, the major ones by adhering to the principles of the 1957 convention. Such right is rooted in the universally recognized principle that it is a paramount consideration for maritime nations to preserve the continuity of maritime commerce as a matter of vital national interest.

Perhaps it would be helpful to the Committee to briefly review the history of limitation statutes. Limitation of shipowners' liability was adopted in France in 1681 and in England in 1734. The first Congressional act in the United States was passed in 1851. Such act was later amended in 1936 to provide an additional fund to be available in instances of death and injury to passengers, crew members and others.

The principle of shipowner's limitation of liability is recognized in the report of the Committee on Commerce, United States Senate—87th Congress, 2d session, Report No. 1602, dated June 15, 1962, Calendar No. 1562—submitted by Senator Bartlett to accompany a bill, S. 2314, in the 87th Congress relating to the limitation of liability of shipowners in the following terms:

> "The law of every maritime nation permits owners to limit liability to some extent. The concept springs from the practical economic need to insulate shipowners from the ruinous liability that could result from maritime disasters. It recognizes that the ship, unlike other property, normally operates in distant areas where the owner cannot personally see to its safe navigation and management, and that the ship is subject to unusual perils and hazards of the sea. Because of these considerations and to encourage, as a matter of public policy, investment in shipping, the shipowner may be relieved in part from the consequences of torts, such as negligence in navigation, unless the casualty is a result of his own fault or privity."

To deprive the United States shipowners of their right to limit liability as is provided under the present bill would be a further step in the direction of placing the United States Merchant Marine at a fatal disadvantage in international commerce.

The Brussels Convention of 1957 was brought before the Committee on Commerce of the U.S. Senate in bills S. 2314 and S. 556 during the 2d session of the 87th Congress in July, 1961 and in the 88th Congress, as an act entitled "Shipowners' Limitation of Liability Act, 1962," and reported with amendment in June, 1962, Report No. 1603, Calendar No. 1563. The Maritime Law Association at that time urged that the Brussels Convention of 1957 be made the law of this nation as set forth in bills S. 2314 and S. 556. However such bills were not enacted into law.

Thereafter, in 1966, adoption of the Brussels Convention, 1957, into our law was again proposed to the Committee on Commerce, U.S. Senate, by bill S. 3251 at which time the MLA affirmed its continued view that the provisions of the convention be enacted into law (see resolution attached as Appendix A).

This Special Committee is authorized again to urge that the provisions for limitation of shipowners' liability contained in the Brussels Convention of 1957, be made the law of this land.

At no time when the above bills were under consideration did the government take the position that shipowners should be deprived of their right to limit liability with respect to property damage. Bill 14000 as presently proposed is the only known attempt to deprive shipowners of such right.

Thus it can be seen that the change in law as now proposed by bill 14000 would be a drastic step not in harmony with maritime history as to limitation of liability.

Based upon realistic considerations, including the need for attracting private capital to support shipping in foreign and domestic commerce and the preservation and continuity of our merchant marine as a national asset, the proposed bill should clearly preserve shipowners' right to limit liability.

III. MLA'S SUGGESTED MODIFICATIONS OF H.R. 14000

Attached hereto is a redraft of Section 19 of H.R. 14000. It will be noted that the redraft embodies a number—but by no means all—of the suggestions which were incorporated in a redraft prepared by the API, and a number of other changes which are being urged by the MLA. We give you below our comments, keyed into the sections of our redraft, concerning changes suggested by the MLA:

SEC. 19. (a)(1) The addition of the adjective "persistent" is made to bring this legislation into line with the coverage of the IMCO convention which is now being worked out.

(2) and (3) It seems clearer to define "owner" and "operator" separately and somewhat more explicitly.

(11) Since the word "immediately" is used in the proposed bill it seems to us helpful to include a definition.

SEC. 19. (b) Oil discharges resulting from Acts of God, war and sabotage should obviously not be considered unlawful.

SEC. 19. (d) The phrase "causes the discharge" is considerably broader in its scope than the word "discharges" and, when combined with the adverb "negligently" makes it clear that *any* vessel or shore installation which negligently causes such discharge is subject to the fine even though it may not be the actual source of the discharge. Consideration could, perhaps, also be given to broadening the scope even further so that the penalty would be personal and include "any person."

SEC. 19. (e) The addition of the phrase "which negligently discharges or permits, causes or contributes to the discharge of oil" is considerably broader in scope than the original language and properly puts the burden on the "culprit" (a word used in the course of these hearings) to clean-up the results of his negligence. The word "shall" makes it clear that the Government must act in situations where the negligent owner fails to act, and the addition of the phrase "or other person whose negligence caused or contributed to such discharge of oil" makes it clear that it is the culprit who has to pay the reasonable costs of the clean-up operation performed by the Government.

The exclusion of the phrase "notwithstanding any other provision of law" is essential to preserve the rights of vessel owners and shore operators, and to eliminate the very real probability that the bill as originally drafted would, by creating uninsurable risks, result in the legislation being self-defeating, since without insurance many shipowners would not be able to meet the obligation to pay clean-up costs. (See Transcript page 446). See also the discussion in sec-

tion II above. The phrase "Provided, that there shall be no such liability where such discharge was due to an Act of God" is excised as being unnecessary because, under this redraft, negligence is the basis for liability. If negligence is not to be the basis for liability, then there would have to be a myriad of other exclusions in order for the legislation to be fair—for example; war, sabotage, acts of trespassers or other unauthorized persons, etc.

SEC. 19. (f) This section as proposed by the API provides for the reversal of the burden of proof discussed by Mr. Shearer at page 454 of the Transcript of April 24th hearings and which is, we understand, recommended for incorporation in the proposed IMCO convention. That position may be justified for reasons of international agreements. Our law providing for burden of proof under the principle of *res ipsa loquitur* protects our government and our citizens. The balance of this new section as proposed by the API is designed to make it clear that the Secretary of the Interior can proceed against anyone whose negligence caused or contributed to the discharge of oil and also to prevent the reversal of burden of proof in favor of the Secretary from affecting the rights of vessels or shore installations against each other.

SEC. 19. (g) The suggested additional phrase broadens the uses to which the revolving fund can be put.

SEC. 19. (h) As stated by Mr. Calhoun, President of MEBA, in testifying before this committee on April 25th, the suspension or revocation of a license without a finding of negligence or willfulness imposes "an intolerable burden on American maritime officers and other seamen."

SEC. 19. (j) The addition of a specific provision for research and issuance of technical information seems wise.

SEC. 19. (k) This section is necessary in order to preserve rights of owners of shore installations or vessels who pay for clean-up operations initially.

SEC. 19. (l) This is the "Good Samaritan" provison testified to by Mr. Checkett on April 24th.

SEC. 19. (m) The deletions and changes are designed to protect the civil rights of persons suspected of violating this statute, and also to preserve the constitutionality of this section.

SEC. 19. (o) This new section makes it clear that the Federal Government preempts this field insofar as navigable waters or adjacent shorelines are concerned. Such pre-emption is conducive to uniform laws and enforcement thereof—all making for equal treatment of citizens or foreign nationals alike under law.

CONCLUSION

In its zeal to enact legislation to improve the condition of the waters and shorelines of the United States, Congress should not overlook other essential aspects of the American social and economic scene. The MLA suggests that H.R. 14000 as originally drafted has fatal flaws which not only may adversely affect our merchant marine and international trade but, by so doing, make the legislation largely self-defeating. It is submitted that the MLA redraft of Section 19 of H.R. 14000 will be more effective than the original in dealing with the problem of oil pollution while at the same time preserving well established principles of maritime and constitutional law.

Respectfully submitted.

JOHN F. GERITY.
BURTON H. WHITE.
GORDON W. PAULSEN.

Dated: New York, N.Y., May 24, 1968.

APPENDIX A

RESOLUTIONS OF THE MARITIME LAW ASSOCIATION OF THE UNITED STATES, EXECUTIVE COMMITTEE

To the U.S. Senate Committee on Commerce, 89th Congress, 2d Session:

Whereas a bill, S. 3251, has been introduced and referred to the Committee on Commerce to repeal the laws authorizing limitation of shipowners' liability for personal injury or death, to require evidence of adequate financial responsibility to pay judgments for personal injury and death, or to repay fares in the event of nonperformance of voyages, or for other purposes;

Whereas a special meeting of the Executive Committee of The Maritime Law Association of the United States was held in the City of New York on May 17, 1966, to consider the views of The Maritime Law Association of the United States on legislation now pending before Congress with respect to limitation of liability and to authorize an expression of the Association's views, if any, to the appropriate legislative committees with respect to the aforesaid Bill;

Whereas after due deliberation of the provisions of the aforesaid Bill, including specifically Section 1 thereof, by the members of the Executive Committee present at such meeting, it is unanimously

Resolved that this Association' views be presented by this Resolution to the Committee on Commerce of the United States Senate in connection with the aforesaid Bill, including Section 1 thereof, dealing with limitation of shipowners' liability for personal injury and death;

And it is further resolved that this Association requests the Committee on Commerce to reconsider the evidence in support of the Report and the Report No. 1602, 87th Congress, Second Session. United States Senate, Calendar No. 1562, as evidence in the Hearing before this Committee on Commerce and as reflecting the continued views of the Maritime Law Association of the United States;

And it is further resolved that Section 3 of the Bill. S. 3251, being the financial responsibility provision of said Bill, constitutes justified legislation, more particularly with respect to non-shipowners receiving cruise revenues and then defaulting.

J. EDWIN CAREY, *Secretary.*

STATE OF NEW YORK,
County of New York, ss:

I, J. Edwin Carey, Secretary of The Maritime Law Association of the United States, do hereby certify and attest that at a special meeting of the Executive Committee of The Maritime Law Association of the United States duly called and held at No. 96 Fulton Street, New York, New York, on the 17th day of May, 1966, at which a quorium of the Executive Committee was present the prefixed Resolutions were unanimously adopted by the said Executive Committee.

J. EDWIN CARNEY, *Secretary.*

Sworn to before months of May, 1966.

CLARA A. LAURO,
Notary Public, State of New York.

APPENDIX B

MLA'S REDRAFT OF THE OIL POLLUTION CONTROL SECTION OF H.R. 14000

(Note: API changes are indicated by single underlining and MLA additions by double underlining. Deletions from original shown are in linetype as follows.)

SEC. (3) The Federal Water Pollution Control Act as amended is amended by redesignating Sections 19 as Section 20 and by inserting after Section 18 a new section to read as follows:

"OIL POLLUTION CONTROL

"SEC. 19. (a) For the purposes of this section, the term—

"(1) 'oil' means persistent floating oil of any kind or in any form, including, but not limited to, fuel oil, sludge, oil refuse, and oil mixed with other matter, in such quantities as to constitute or threaten to constitute an immediate public nuisance or to interfere with or threaten to interfere with the beneficial use of the navigable waters or adjoining shorelines of the United States;

"(2) 'owner' means any individual or organization which holds title to a vessel or shore installation;

"(3) 'operator' means any charterer who mans victuals and navigates a vessel at his own expense, or by his own procurement, or any individual or organization which leases or operates a shore installation;

"(4) ~~(3)~~ 'vessel' includes every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water;

"(5) ~~(4)~~ 'public vessel' means a vessel owned and operated by the United States, or by a State or, by a foreign nation, or except where such vessel is engaged in commercial activities, by a foreign nation;

"(6) ~~(5)~~ 'shore installation' means any building, structure, contrivance, or device, including, but not limited to, a terminal facility, manufacturing or industrial plant, drilling facility, pipeline, pumping station, pier, wharf, or dock, which is used in the handling or processing of oil and which is located in or adjacent to the navigable waters of the United States;

"(7) ~~(6)~~ 'discharge' means any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil;

"(8)) ~~(7)~~ 'navigable waters of the United States' means all portions of the sea within the territorial jurisdiction of the United States and all inland waters within the admiralty and maritime jurisdiction of the United States;

"(9) ~~(8)~~ 'United States' includes the Commonwealth of Puerto Rico, Guam, American Samoa, and the Virgin Islands;

"(10) 'remove' or 'removal' refers to the taking of reasonable and appropriate measures to mitigate the potential damage of discharge; and

"(11) 'immediately' means at the earliest reasonably practicable time after knowledge of the event, having regard to the circumstances and conditions of the particular case.

"(b) Except in case of emergency imperiling life or property, Act of God, war, sabotage, collision, standing, or unavoidable accident, and except as otherwise permitted by regulations prescribed by the Secretary under this section, it is unlawful to discharge or permit the discharge of oil by any method, means, or manner into or upon the navigable waters of the United States or adjoining shorelines of the United States.

"(c) Any owner or operator of a vessel, other than a public vessel, or a shore installation, or any employee thereof, who willfully violates the provisions of subsection (b) of this section or the regulations issued thereunder, shall, upon conviction, be punished by a fine not exceeding $2,500, or by imprisonment not exceeding one year, or by both, for each offense.

"(d) Any vessel, other than a public vessel, or any shore installation which willfully or negligently causes the discharge of oil in violation of subsection (b) of this section or any regulation issued thereunder shall be liable for a penalty of not more than $10,000. Clearance of a vessel liable for this penalty from a port of the United States may be withheld until the penalty is paid or until a bond or other surety satisfactory to the Secretary is posted. The penalty shall constitute a lien on such vessel which may be recovered by action in rem in the district court of the United States for any district within which such vessel may be found.

"(e) The owner or operator of a vessel or shore installation which willfully or negligently discharges or permits, causes or contributes to the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines shall remove such discharged oil immediately from such waters and shorelines in accordance with regulations prescribed by the Secretary under this section. If such owner or operator fails to so act, the Secretary ~~may~~ shall remove the oil or arrange for its removal from such waters and shorelines, and such owner or operator ~~and, as appropriate, the vessel and the shore installation~~ or other persons whose negligence caused or contributed to such discharge of oil and, as appropriate, the vessel shall be liable, ~~notwithstanding any other provision of law~~ to the United States in addition to the penalties prescribed in this section, for the full amount of the actual costs reasonably incurred by the Secretary under this

subsection. ~~Provided, that there shall be no such liability where such discharge was due to an Act of God.~~ Clearance of a vessel liable for such costs from a port of the United States may be withheld until such costs are paid or until a bond or other surety satisfactory to the Secretary is posted. Such costs shall constitute a maritime lien on such vessel which may be recovered by action in rem in the district court of the United States for any district within which such vessel may be found.

"(f) In any action instituted by the Secretary of the Interior under subsection (e) of this section, evidence of the discharge of oil from a vessel or shore installation shall constitute a prima facie case of liability on the part of the owner or operator of such vessel or shore installation or, as appropriate, the vessel for the costs of removal as provided for in subsection (e) of this section, and the burden of rebutting such prima facie case shall be upon such owner or operator. The Secretary of the Interior shall also have a cause of action under subsection (e) of this section against any other person whose negligence is found to have caused or contributed to the discharge of oil from a vessel or shore installation involved in a collision or other casualty. The burden of rebutting the prima facie, case of liability which the Secretary shall have against the vessel or the owner or operator of the vessel or shore installation from which the oil is discharged shall in no way affect any rights which such owner or operator may have against any other vessel or persons whose willful act or negligence may in any way have caused or contributed to such discharge of oil.

"(g) ~~(f)~~ There is hereby authorized to be appropriated to a revolving fund, which is established in the Treasury, such amounts as may be necessary to carry out the provisions of subsection (e) of this section. Any funds received by the United States in payment of any actual costs incurred by the Secretary pursuant to said subsection and any penalties collected for any violation of this section shall also be deposited into said fund for such purpose, and for research purposes as set forth in subsection (i) of this section. All sums appropriated to, or deposited into, said fund shall remain available until expended.

"(h)" ~~(g)~~ The Commandant of the Coast Guard may, subject to the provisions of section 4450 of the Revised Statutes, as amended (46 U.S.C. 239), suspend or revoke a license issued to the master or other licensed officer ~~of any vessel~~ found willfully or negligently violating the provisions of subsection (b) of this section.

"(i) ~~(h)~~ The Secretary shall issue regulations which (1) will set forth the methods and procedures to be followed in removing oil from the navigable waters of the United States and adjoining shorelines of the United States, (2) will facilitate the enforcement of this section, and (3) will assist in preventing the pollution of the navigable waters of the United States. The Secretary may also issue regulations which authorize the discharge of oil from a vessel or shore installation in quantities, under conditions, and at times and locations, deemed appropriate by the Secretary, after taking into consideration various factors such as the effect of such discharge on the public health or welfare, recreation, fish and wildlife, and navigation.

"(j) The Secretary shall engage in such research as may assist in the removal of oil from navigable waters and adjoining shorelines and shall publish such findings and technical information. There are hereby authorized to be appropriated such funds as may be necessary to carry out the purposes of this subsection.

"(k) An owner or operator who shall remove oil discharged from its vessel or shore installation shall be entitled to reimbursement from any other person, vessel or the United States for the reasonable costs expended for removal when

such discharge resulted from the willful act or negligence of such other person, vessel or the United States. When such discharge results from the joint negligence of two or more owners or operators, or their vessels, or shore installations, each shall be liable to the others for its pro rata share of the costs of removal.

"(l) Any person who renders assistance in removing oil from the navigable waters of the United States or adjoining shorelines shall not be held liable, notwithstanding any other provision of law, for any civil damages as a result of any act or omission by such person in rendering such assistance, or as a result of any act or failure to act to provide or arrange for further assistance in removing such oil, except acts or omissions amounting to gross negligence or willful or wanton misconduct.

"(m) (i) The provisions of this section and the regulations issued thereunder shall be enforced by authorized personnel of the Department of the Interior and by authorized personnel of the Department in which the Coast Guard is operating. The Secretary may utilize by agreement with or without reimbursement law enforcement officers or other personnel and facilities of other Federal agencies to carry out the provisions of this section and the regulations issued thereunder, including the enforcement thereof. The Secretary is also encouraged to enter into agreements or other arrangements with any State in carrying out the provisions of this section, including the enforcement thereof. Such Federal personnel are authorized to ~~swear out process and to arrest and take into custody, with or without process~~ proceed against anyone who violates the provisions of this section or the regulations issued thereunder in their presence or view, and to ~~take~~ summon such person ~~immediately~~ for examination or trial before a United States commissioner or court of competent jurisdiction. The judges of the United States district courts and the district courts of Guam and the Virgin Islands and the United States commissioners may, within their respective jurisdictions, upon proper oath or affirmation showing probable cause, issue such warrants or other process as may be required to enforce this section and the regulations.

(n) ~~(j)~~ In the case of Guam, actions arising under this section shall be brought in the district court of Guam and in the case of the Virgin Islands, such actions shall be brought in the district court of the Virgin Islands. In the case of American Samoa, such actions shall be brought in the United States district court for the district of Hawaii and such court shall have jurisdiction of such actions.

"(o) Notwithstanding any other provisions of law this section shall represent the sole remedy available to the United States for any civil or criminal penalties with respect to the discharge of oil and the costs of removal of oil from the navigable waters of the United States or adjoining shorelines. Further, this section supersedes all Federal, and preempts all State or Municipal laws, including those laws of the Commonwealth of Puerto Rico, and the American territories of Guam, American Samoa and the Virgin Islands regulating the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines or the removal of such oil.

(b) Redesignated section 15 of the Federal Water Pollution Control Act, as amended, is amended by deleting the following: "the Oil Pollution Act, 1924, or"

(c) The Oil Pollution Act, 1924 (43 Stat. 604), as amended (80 Stat. 1246–1252), is hereby repealed.

AMERICAN MERCHANT MARINE INSTITUTE, INC.,
Washington, D.C., April 30, 1968.

Hon. GEORGE FALLON,
Chairman, Committee on Public Works,
U.S. House of Representatives,
Washington, D.C.

MY DEAR MR. CHAIRMAN: We respectfully request that this letter be made part of the record of the Committee's hearings on April 23–25 and be included as an appendix to my testimony of April 24.

We would like to submit our comments on H.R. 16207—to amend the Federal Water Pollution Control Act, as amended, to control pollution from vessels

within the navigable waters of the United States. This bill, largely regulatory in nature, provides for comprehensive regulations to be promulgated by the Secretary of the Interior governing the discharge of sewage, ballast and bilge water, litter, sludge, garbage, or other substances of any kind or description other than oil or dredge spoil, into the navigable waters of the United States or the contiguous zone. Violations of these regulations would result in a criminal penalty not exceeding $2,500.00 or imprisonment not exceeding one year and a civil penalty of not more than $10,000. In general, our statement will deal with certain procedural rights connected with the promulgation of regulations, and which agency should have primary control over certifying shipboard pollution devices and over the promulgation and enforcement of rules. In addition, we will discuss certain discrepancies in the bill and the vexing problem of retrofit.

We are, of course, greatly concerned with the problem of pollution of the seas by noxious materials, and have so stated unequivocally before the Subcommittee on Oil and Water Pollution of the Senate Commerce Committee just last June. Thus, we are in favor of the overall objectives of H.R. 16207. However, there are several suggestions which, we believe, will improve the bill and which will result in more effective control of water pollution. For example, H.R. 16207 should result in uniformity of the control of water pollution from vessels. However, the bill does not appear to accomplish this inasmuch as it seems to impose Federal requirements on existing and future State or local requirements. Hence, it is suggested that all regulations be promulgated with a view toward uniformity, and that the bill be amended so as to provide that regulations issued thereunder shall preempt all other State or local regulations relating to the control of water pollution by vessels.

While this proposed legislation is largely regulatory in nature it does not require the Secretary to hold hearings before promulgating his regulations. For this reason, and in order to insure that all interested parties have their views fully considered, we think it is imperative that H.R. 16207 should provide for notice and hearing procedures before the regulations called for in both sections 11 and 12 are adopted. It is true that subsection (d) provides that the Secretary shall consult with certain agency heads before the regulations are issued, and that after they are issued, but before they become effective, interested parties shall be afforded "a reasonable opportunity to comment thereon". But where regulations are so far-reaching and all-inclusive and their violation carries a criminal penalty not exceeding $2,500.00 or one year imprisonment and a civil penalty of not more than $10,000—as is the case under H.R. 16207—it is only right and just that the Secretary should be required to make findings as to the facts on which regulations are based. And on questions such as whether the findings of fact are based on substantial evidence and whether the regulations are reasonable in light of the findings made, we think interested parties should be afforded the right of judicial review. The issues involved are far too serious to be governed by regulations promulgated on the basis of merely affording interested parties opportunity to comment between issuance and effective data and without the procedural safeguards mentioned above.

As constituted, the implementation and enforcement of H.R. 16207 is almost wholely with the Department of the Interior. Here is a bill dealing entirely with ships—inland and ocean-going, and since the Coast Guard is the Federal agency which has always had the responsibility for regulating the operations of vessels, we thing the various responsibilities of regulation, implementation, and enforcement under H.R. 16207 should properly repose in the Coast Guard—the agency with existing expertise and experience. Thus, the bill should be amended to place the Department in which the Coast Guard is operating in place of the Department of Interior, and the Secretary of the Department in which the Coast Guard is operating in place of the Secretary of Interior.

One of the weaknesses of the present bill is the divided responsibility involved in the promulgation of the regulations and their enforcement and regulation in general. For example, on page 4, subsection (e), the Secretary of Interior has the power to certify the conformance of any device designed to control the discharge of sewage from vessels, and the Secretary of the Department in which the Coast Guard is operating only has the power of approval of such devices insofar as "safety" is concerned. The authority of the Secretary of the Interior should be confined to setting standards and criteria with respect to pollution. The certification as to safety and all other aspects should be with the agency that has the responsibility for approving virtually all vessel equipment and operations—the Coast Guard. After all, it is the Coast Guard which is involved in these pro-

cedures daily and when it certifies a vessel the certificate includes all types of miscellaneous equipment on board commercial vessels. It makes no sense at all to have one governmental department attempting to regulate particular aspects of vessel operation when another governmental department now exercises regulatory authority over nearly every aspect of ship operation. In addition, it should be made abundantly clear that any person properly using and maintaining certified sewage control equipment shall be immune from liability for sewage discharges.

On page 8 (subsection (k) flatly states that the provisions of section 11 "shall be enforced by the employees of the Secretary of the Interior and by personnel of the Secretary of the Department in which the Coast Guard is operating . . ." This enforcement by "employees" of two different Cabinet-rank departments would inevitably lead to confusion and constitutes an entirely unnecessary duplication which is both inefficient and costly.

In connection with section 12 of the bill, which fixes the same prohibitions contained in section 11, for the so-called "contiguous zone" which is an additional 9 miles seaward from the outer boundary of the three-mile limit, the question arises as to the physical ability of the Department of the Interior to engage in surveillance and enforcement this far off shore. Is it contemplated, for example, that Interior would build, maintain, and operate a completely duplicate fleet of patrol vessels? Thus, it is suggested that the bill should stipulate that the Coast Guard not only prescribe the mechanical and structural facilities needed on board a vessel, but that they have the sole responsibility for enforcing the pertinent regulations.

Section 12 provides that it shall be unlawful to discharge from any vessel sewage, ballast and bilge water, sludge, garbage, etc., "into the waters of the contiguous zone . . . which may pollute or contribute to the pollution of the waters of the territory or the territorial sea of the United States, except in case of an emergency . . . unavoidable collision, stranding, or accident, or except under regulations prescribed by the Secretary." The question arises as to why the section 12(a) unlawful discharge of the noxious materials mentioned into the contiguous zone should be subject to the four exceptions of emergency, unavoidable collision, stranding, or accident, while the section 11(f) unlawful discharge of the same noxious materials into the navigable waters is not subject to these four exceptions. Thus, it is suggested that this discrepancy be corrected by amending H.R. 16207 so that the four exceptions stated in section 12(a) also apply to discharges into the navigable waters as set out in section 11(f).

In closing, I would like to comment on the serious problem of retrofit, i.e., repiping and replumbing existing vessels to collect and/or treat waste materials. The Navy has already testified that they estimate an expenditure of approximately $255 million to repipe and replumb 700 vessels, and the Coast Guard has indicated that their estimates for retrofit range from $50,000 to $300,000, depending on type of vessel. In this connection, we would like to note the variety of types of commercial vessels affected such as passenger ships, tankers, bulk carriers and dry cargo ships. In addition to the substantial costs involved in the phyical alteration of these ships, the tremendous commercial loss incurred during lay-up must be taken into account. This loss would not fall on the shipowner alone, but on shippers, freight forwarders, pier owners, railroads, truckers, longshoremen and seamen as well. In fact, such retrofitting would hasten the end of many aging ships when we are already faced with the specter of block obsolescence. The deterioration of the American-flag merchant marine is well known, and it would not seem to make sense for the Public Works Committee to hasten its demise when other Committees of the Congress are working so hard to rescue it.

Sincerely,

RALPH E. CASEY.

OHIO VALLEY IMPROVEMENT ASSOCIATION, INC.,
Cincinnati, Ohio, April 25, 1968.

Re S. 3206.

Hon. GEORGE H. FALLON,
Chairman, House Committee on Public Works, Rayburn House Office Building Washington, D.C.

DEAR CONGRESSMAN FALLON: The Ohio Valley Improvement Association, founded in 1895, is a non-profit corporation of the State of Ohio. It is dedicated to the social and economic improvement of the Ohio Valley Region, principally

through sound development of water resources. In view of its commitment to water resource development, the Association desires to express its support of the objectives of S. 3206 and to offer the following comments which it is hoped will be helpful to the Committee in its consideration of this legislation:

(1) Under Section 2(f)(3 of the Bill, it is provided that interest on any obligation secured in whole or in part by a contract under subsection (f) of Section 2, or by revenues from works constructed with financial assistance thereunder, shall not be exempt from Federal income taxation, and that no payment shall be made by the Secretary for any portion of the principal or interest on any obligation, the interest on which is so exempt. We urge that this provision be deleted from the Bill. Its effect would be to impair the marketability of bonds issued by States and local public bodies, thus tending severely to obstruct financing of waste treatment works and to hamper their construction. In this connection, it is significant that many States such as West Virginia have statutory limits on the rate of interest payable on State and municipal obligations, which would preclude issues under present conditions at rates high enough for market acceptance, if tax-exempt status is eliminated. We know of no reason why obligations of States and local public bodies issued to finance water pollution abatement facilities should be treated less favorably for Federal income tax purposes than any other obligations of such entities.

This proposal, therefore, would set a dangerous precedent for future deprivations of the income tax exempt status of bonds issued states and local public bodies, and would raise basic issues of Federal fiscal policy and would present grave questions as to the proper relationship between Federal Government and the States and other local governmental agencies. Such issues should be considered, if at all, by the cognizant committees of Congress in the full context of the complex questions involved, not in the limited setting of Federal water pollution control policy.

The deletion here recommended would also entail the deletion of Subsection (f)(3) Clause B of Section 2, apparently designed to provide a subsidy to offset loss of tax-exempt status.

(2) Under Section 2(g) of the Bill, it is provided that in approving treatment works for Federal grant or contract assistance, the Secretary, beginning July 1, 1968, shall require as a condition of such assistance, adequacy of the design or operating plan for treatment works and that the States by not later than July 1, 1969, develop certain plans and programs. We urge that the dates prescribed in Subsection (g) be set forward by at least one year. Action by State legislatures will in many instances be required to meet the prescribed conditions and in numerous instances legislatures meet only biennially. The dates specified in the bill could well result in slowing down projects by several years.

(3) Also in Subsection (g) of Section 2 it is required that the States develop statewide plans "to improve the efficiency of all constructed treatment works". This would seem to go beyond the true intent of the sponsors of the bill, since literally construed, it would require improvements in the efficiency of works already operating at peak efficiency. We suggest that this provision be amended by adding after the words "treatment works" in line 1 of page 9 the words "not currently operating at efficiencies in conformity with modern technologies".

We trust the Committee will give favorable consideration to our recommendations and we respectifully request that this letter be incorporated in the hearing record.

Sincerely,

WILLIAM J. HULL,
Chairman of the Legislative Committee.

THE COMMONWEALTH OF MASSACHUSETTS,
WATER RESOURCES COMMISSION.
Boston, April 18, 1968.

Re H.R. 15907.

Hon. GEORGE H. FALLON,
Chairman, Committee on Public Works,
House of Representatives,
Washington, D.C.

DEAR MR. FALLON: The Massachusetts Division of Water Pollution Control has analyzed H.R. 15907, a bill to amend the Federal Water Pollution Control Act. This bill, in our opinion, has many disturbing features which will adversely

affect the timely construction of waste treatment facilities in the Commonwealth and completely disrupt the implementation scheduling already promulgated as required by the Federal Water Quality Act of 1965.

In order to properly evaluate the ramifications of this bill, a brief review of the Massachusetts program should be made.

Since the passage of the Federal Water Quality Act of 1965 and the Clean Waters Restoration Act of 1966, the Commonwealth of Massachusetts enacted one of the most comprehensive water pollution control programs in the nation, featuring a $150 million State Grants Program, a new Division of Water Pollution Control in the Department of Natural Resources, two industrial waste treatment tax incentive laws, one million dollars a year for research and training, and broad authority for enforcing the provisions of the Clean Waters Act. Water Quality Standards have been adopted and approved for the entire State, and the Division has instituted and scheduled an aggressive and comprehensive waste treatment construction program tailored to the financial support authorized by the Clean Waters Restoration Act. Following cut-backs in Federal appropriations in FY 1968, a prefinancing clause was passed by the Massachusetts legislature to allow us to advance the Federal share on eligible projects in order to preserve the integrity of the schedules set forth in our implementation program.

This pending Federal legislation appears to offer several serious deficiencies that would certainly delay and conceivably cripple the efforts of the Commonwealth's water pollution abatement program. Several of these are enumerated as follows:

1. Under H.R. 15907, the Federal reimbursement provisions are discontinued July 1, 1968. To maintain the present Federal grant appropriations and at the same time eliminate the reimbursement provision will reduce the level of construction far below what is required in the State's implementation schedule and serve to lengthen the time period for water quality enhancement of our rivers and streams.

2. The larger communities will be at a disadvantage under the contract provisions because of the method of reimbursement using non-tax exempt bonds contrasted with a smaller community that may receive grants. This constitutes a serious problem as to the equitability between large and small community financing. The appropriation levels are also not specified in the Act and therefore makes it difficult to plan for specified projects on a year-to-year basis.

3. The fact that no state may get more than 10 percent of the total amount of available funds for contracts obviously is disproportionate as the magnitude of State problems vary considerably, and there is no assurance that more serious problems will be rectified on a priority basis. The earlier method of allocations on a population and income basis with State priority schedules certainly appears to be a better approach.

4. The section providing for the local public body to establish a necessary reserve fund is not allowable under the Massachusetts General Laws.

5. The State would certainly agree an operator certification program is a necessary ingredient to an effective water quality control program. At the present time there is a bill for a mandatory Operator Certification Program in the Massachusetts House of Representatives. The effective date for this however is July 1, 1971, which, in our opinion is the earliest we can promote an effective certification program which will include re-training existing operators and instituting a one-year school for inducing new personnel in the operation of waste treatment plant programs.

6. Under the presently anticipated grants for FY 1969 there is some $225 million authorized for construction grants. HR 5907 proposes a research and development program for $125 million a year on a continuing basis. It certainly would appear that the proportionate amounts for construction grants for waste treatment facilities compared to the amounts being proposed for research is grossly imbalanced. Our State recognizes the needs for continuation of the on-going research and demonstration program but not at a level that is almost 60 percent of the authorized construction levels.

7. The proposed legislation would eliminate the provision in the existing Act that one of the Federal regional water pollution control laboratories shall be located in the Northeastern area of the United States. It is our

understanding that under the present Act, the site for this laboratory was selected and the final plans prepared for the laboratory to be located in the Boston area.

8. The bills do not recommend how much money will be authorized for construction grants or for contracts making it impossible for the States to plan projects in advance and, of course as earlier mentioned, destroys the present implementation schedules required by the Federal Water Quality Act of 1965.

We would offer the alternative of continuation of the program proposed in the Federal Water Quality Act of 1965 and the Clean Waters Restoration Act of 1966 with increased authorizations for construction grants as a far more suitable method for attacking water pollution in a broad, equitable and efficient manner. Alteration of the financial methods of assistance to communities can only negate many of the good features of our State program and rescind many of the progressive provisions of earlier amendments to the Federal Water Pollution Control Act.

In summary, Mr. Chairman, the Massachusetts Division of Water Pollution Control wishes to go on record as opposing HR 15907. We would be most appreciative if this letter were to be read at the scheduled hearings and be made a part of the record of the hearing.

Very truly yours,

THOMAS C. MCMAHON, *Director.*

DELAWARE RIVER BASIN COMMISSION,
Trenton, N.J., May 17, 1968.

MR. RICHARD J. SULLIVAN,
Chief Counsel, House Committee on Public Works, Rayburn House Office Building, Washington, D.C.

DEAR MR. SULLIVAN: I understand that the House Public Works Committee has under consideration a bill by Congressman Dingell (H.R. 16852) to amend Section 11 of the Water Pollution Control Act. The amendment would provide that no "federal department or agency" shall issue a license or permit to authorize industrial or state or municipal activity that might result in the discharge of heated effluents into interstate waters unless the Secretary of Interior first certifies to the federal agency that the discharge will not reduce the quality of the receiving waters below applicable state or federal standards.

The Delaware River Basin Commission is a federal agency (75 Stat. 688) and as such would appear to be subject to the requirement of the proposed amendment. Unlike other federal agencies (FWPCA excepted), however, the Commission is directly in the business of administering water quality standards, including criteria related to heated effluents. The proposed legislation, therefore, would create an unnecessary and duplicatory certification procedure in this basin.

Under Section 3.8 and Article 11 of the Delaware River Basin Compact, the Commission must review all new waste discharges to determine if they conform to the water quality standards contained in the Commission's Comprehensive Plan. These standards were adopted by the Commission on April 26, 1967, approved by the Secretary of Interior on April 4, 1968, and are quite specific with regard to temperature conditions in the water that must be maintained. Any proposed industrial or municipal waste discharge that does not meet these standards can be stopped by action of the Commission, which would not be affected by any license or permit granted by any other federal agency. On this point, you may be interested to know that we already have had experience with a proposed nuclear generating station that decided to install cooling towers in anticipation of the Commission's temperature requirements.

In light of the fact that the Commission is administering these water quality standards on a day-to-day basis, and since these standards are federal standards by virtue of the Secretary's approval, it would seem quite unnecessary for the Commission to have to refer proposed waste discharge projects to the Secretary of Interior for duplicate certification as would be required under the provisions of the proposed bill.

As a way to adapt this proposal to the Delaware River River Basin, without at the same time affecting the intent of Congressman Dingell, I would suggest that the bill be amended in either of two ways:

(1) By adding at the end of the bill a new sentence to read as follows: "In any river basin where water quality standards are administered under a federal-interstate compact, the powers delegated to the Secretary by this section shall be vested in and exercised by the governing body constituted by such compact."

or

(2) As a more general amendment which will leave the enforcement of water quality standards relating to heated effluents with the agencies already empowered within the framework of the present law, the new paragraph (b) could be amended by deleting all after the word "waters" in line 9 and inserting in lieu thereof: "where such effluent would violate applicable water quality standards approved pursuant to this Act, and applied by the agency directly charged with responsibility for their administration."

I would anticipate that under the second alternative above an Executive Order would be helpful to define in further detail the requirements of inter-departmental coordination.

Sincerely,

W. BRINTON WHITALL, *Secretary.*

Burlington has been selected as the location for a second 993,000-kilowatt nuclear generating unit. This will be of the pressurized water type supplied by Westinghouse Electric Corporation, a duplicate of the first unit which was announced last year.

They will be built side by side on a 140-acre site that straddles the boundary of Burlington Township and Burlington City on the banks of the lower Delaware River, 11 miles downstream from Trenton.

Cost of the newly-proposed project is $121 million. Originally scheduled for operation in 1974, it is now scheduled to begin operating in 1973.

Public Service will design, construct, operate, and maintain both units. However, it will share ownership and electric output of the first with three other utilities. Public Service and Philadelphia Electric Company will each have a 39.43% share; Delmarva Power and Light Company, 13.09%; and Atlantic City Electric Company, 8.05%. The other three companies have been invited by Public Service to share in the second facility.

Four cooling towers, two for each unit, will be built on the site, so that it will not be necessary to circulate Delaware River water for cooling purposes. Under the original plan, 1,000,000 gallons of Delaware River water per minute would have been used for each unit.

The towers, a rarity in this country, are common in England and the European continent. They look like large top hats and will rise 410 feet and measure 420 feet in diameter at the base.

The cooling towers are being erected because the Delaware River Basin Commission set up guidelines on March 2 for improvements in the river, among which were limitations on water temperatures. With cooling towers, water will stay within a closed circuit to be used and reused; no warm water will be discharged into the Delaware, and the temperature of the river will not be affected. Total cost of the towers is approximately $16 million.

Our engineers continue to meet with Atomic Energy Commission representatives who are studying the application for the first unit. There's still no word on when a public hearing will be held in the Burlington area. However, we anticipate it will be sometime in the fall.

SPORT FISHING INSTITUTE,
Washington, D.C., May 20, 1968.

Hon. GEORGE H. FALLON,
Chairman, House Committee on Public Works,
Sam Rayburn House Office Building, Washington, D.C.

DEAR MR. CHAIRMAN: The Sport Fishing Institute wishes to comment for the record on the proposed amendment to Section 11 of the Federal Water Pollution Control Act, as amended—H.R. 16852. The purpose of this amendment would be to add a new subsection which would prohibit any Federal department or agency from from licensing or permitting "any individual, firm, corporation, partnership, association, State, political subdivision of a State or any other public body or

agency relating to any activity that may result in the discharge of heated effluents into interstate or navigable waters or into tributaries of such waters. . . ." This subsection would permit the Secretary of Interior to permit such discharges providing they will not reduce the quality of such waters below applicable State or Federal water quality standards.

Mr. Chairman, "Thermal Pollution of Water" was the subject of our entire SFI BULLETIN 191 (enclosed for the record) which deals with the very grave situation developing throughout the country where fossil and nuclear-fueled electric power generating stations are using both fresh and marine waters to cool their condensers. This results in water temperatures being elevated to as high as 143° F.!

Heat can be detrimental to our aquatic resources and if we consider the following definition of water pollution, then it too, is a pollutant: "Water pollution is the specific impairment of water quality by agricultural, domestic, or industrial wastes (including thermal and atomic wastes), to a degree that has an adverse effect upon any beneficial use of water, yet that does not necessarily create an actual hazard to the public health." Under this definition, if there is no impairment of desired use by the presence or addition of any factor, there is no pollution. This is an important concept to adopt because (1) it is easily understood, (2) it is reasonable, and (3) is is potentially enforceable.

We would like to list some ten effects of heated water on marine aquatic life, as enumerated by Dr. Donald P. deSylva of the Institute of Marine Sciences, University of Miami, Miami, Florida:

(1) Considering temperature alone, for every 18-degree (F.) increase in temperature, the rate of a chemical reaction in an organism or in an environment is *doubled*, and the rate of *each* of the many reactions within a biochemical system of an organism is affected.

(2) Oxygen, considered essential to life, is present in smaller concentrations at higher temperatures, and high temperatures increase salinity, which also somewhat decreases the dissolved oxygen concentration.

(3) High temperature speeds the flocculation of finely suspended particles in seawater, which then remove oxygen from water. More important, these particles cause turbidity which decreases the clarity of the water, thus preventing sunlight from penetrating adequately. Plant growth and the resulting dissolved oxygen from plant respiration is reduced. In this connection there is also good evidence that the amount of light penetration affects the behavior of fishes.

(4) High temperatures also increase, to a point, the metabolic rate of fishes and invertebrates at various times of their life cycle, depending on the species and area, after which point their rate of survival drops rapidly. Increasing temperatures affect the rate of development of the eggs and larval stages but extremes induce mortality in eggs, larvae, and adults. Also, a temperature increase causes a salinity increase, thus reducing the survival rate of eggs and larvae. This temperature increase also reduces the concentration of dissolved oxygen, thus increasing mortality in eggs and larvae.

(5) Increasing temperatures change the mode of behavior in larvae and adults. Larger individuals tend to move out of an affected area, but larvae and juveniles cannot often move sufficiently fast to avoid a sudden temperature increase. The metabolic rate is increased with a temperature increase, and more oxygen is used; where this needed oxygen is scarce, organisms perish. Ordinarily, organisms are able to escape predatory forms, but increased temperatures and reduced oxygen or both may slow the organisms' metabolism and ability to detect and escape predators. Such changes in behavior are usually caused by varying amounts of stress placed on the organisms due to changes in metabolism brought on by external factors such as temperature increase. The ability of fishes to maintain their salt balance, for example, is determined by water temperature, and the increased stress placed on fishes by increased temperature and concomitant low oxygen makes them more susceptible to changes in their physical, chemical and biological environment.

(6) Increased water temperature may alter the structure, behavior, and migration of fish schools. Even slightly increased temperatures, as well as the addition of pollutants, can cause fish schools to avoid a contaminated area. This would also affect their availability to sport and commercial fishermen.

(7) The rate of feeding in marine organisms generally increases gradually, then drops off abruptly as oxygen decreases. This is in part due to the critical physiological stress placed on the organisms themselves and partly because the food upon which they are feeding—plankton, bottom invertebrates, fishes—may decrease in abundance, may migrate completely to a new region, or be killed off outright.

Reproductive cycles may be changed significantly by the addition of heated effluents. Spawning may not occur at all because temperatures are too high, especially for species oridinarily spawning in winter, while in some cases spawning may occur too early, when conditions are less favorable in terms of food, and other environmental conditions, for the young to survive. The rate of settling of invertebrate larvae is dependent upon temperature, and this may be favorable or not. Finally, the number of eggs produced by a species is temperature-dependent, with some species producing more eggs at lower temperatures and other species laying more eggs at higher temperatures.

(9) Pollutants usually work not singly but in a combination of several factors. A given amount of waste, such as domestic sewage, refinery wastes, oils, tars, insecticides, detergents, synthetic fibers, and fertilizers, more effectively deplete water of oxygen and increase in their chronic toxicity at higher water temperatures and high salinities. The effect of these is synergistic—two toxic compounds are more powerful acting together than is each other working separately.

(10) Finally, pollution does not necessarily have to cause an actual kill of any of the organisms within a food web to make an area unproductive. Destruction of the habitat, an increasing factor in the depletion of Florida's natural resources, is sufficient to eradicate any number of species without adding a single chemical pollutant. For example, temperatures too high for turtle grass to survive, or for coral or sponges to grow, or for mangroves to flourish, could in itself be sufficient to destroy a habitat of Biscayne Bay. And if one adds any of the pollutants now or potentially being added to Biscayne Bay, the toxic effects of high temperatures are increased considerably.

In freshwater we know that heavy discharges of organic wastes can fertilize water to such an extent, through excesses of nitrogen and phosphorus, that plant growth is greatly augmented. Under high water temperature conditions algae, in particular, bloom prodigiously. Two things may occur under such circumstances: (1) too much dissolved oxygen is liberated by such plants into the water during full sunlight and fish are killed by a condition of supersaturation, exhibiting "pop-eyes" and skin bubbles, or (2) the reverse photosynthetic process takes place under darkness (at night, or on cloudy or foggy days) and the dissolved oxygen is removed from the water and carbon dioxide is given off by the plants—the fish die either from lack of sufficient oxygen or an over-abundance of carbon dioxide. In addition, the dissolved oxygen retaining capability of the water is lessened at higher temperatures, as was previously noted for marine waters.

The National Technical Advisory Committee to the Federal Water Pollution Control Administration on Water Quality Criteria for Fish, and other Aquatic Life, and Wildlife, early had established specific limitations on water temperatures in their Interim Report. We feel that there is great need to heed the advice given by these expert aquatic scientists comprising the NTAC, to adopt these as the official guide of the FWPCA, playing an important role in the Internal Review Board's approval or disapproval of State Standards now before them.

We do not feel that thermal pollution is something we must live with, any more than we feel that some of our waterways must be designated as "sewers." We are convinced that current day technology is adequate to combat the problem effectively. Advances in cooling towers, closed cooling circuits, thermal cooling ponds, and the various combinations of these can return discharge water to the temperature of the intake waters. We would feel that with adequate temperature safety margins built into our water quality standards on interstate and navigable waters that a degree of protection is available here if proper enforcement is enacted.

We have been somewhat taken aback by the Atomic Energy Commission's attitude concerning thermal pollution inasmuch as they denied any statutory recourse in matters other than control over radiological wastes. The growth of nuclear-fueled steam-electric-power plants is well-evidenced and noted in our SFI Bulletin No. 191 (see page 2) as attached to this testimony. Too, it has been

estimated that there are and will be some 85 nuclear plants in operation by the year 2000 producing 16 million kilowatts. The vast amounts of water necessary to cool these less efficient (17 percent less than fossil-fueled plants) is staggering to the imagination. Much of the electric power industry now is considering our coastal areas as those being capable of providing the tremendous volumes of water needed in this cooling process. We are already cognizant of many examples developing across the width and breadth of this nation—Biscayne Bay, Florida, the southern end of the Great Lakes, the Columbia River System, etc. There are very real threats to the anadromous fish populations of the Pacific Northwest wherein actual heat barriers preclude upstream migrations of salmonds during spawning runs.

Mr. Chairman, if we are to promote and protect the well-being of our nation's aquatic resources we must take early cognizance of the dangers involved in this new form of pollution. An amendment, such as is proposed in H.R. 16852, would strengthen the federal position in specifically controlling this very debilitating and deadly form of pollution. The Sport Fishing Institute, therefore, goes strongly on record favoring adoption of this amendment to the basic Federal Water Pollution Control Act. We would appreciate this letter being included in any record of hearings held on this proposed legislation. Thank you.

Sincerely,

PHILIP A. DOUGLAS,
Executive Secretary.