

PERMISSION FOR COMMITTEE ON WAYS AND MEANS TO FILE REPORT BY MIDNIGHT TOMORROW

Mr. ULLMAN. Mr. Speaker, I ask unanimous consent that the report of the Committee on Ways and Means on the bill, H.R. 9346, the Social Security Financing Amendments of 1977, as amended, may be filed by midnight, Wednesday, October 12, 1977, along with any separate or minority views.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from Oregon?

There was no objection.

MARINE PROTECTION, RESEARCH, AND SANCTUARIES ACT OF 1972

Mr. BREAUX. Mr. Speaker, I move that the House resolve itself into the Committee of the Whole House on the State of the Union for the consideration of the bill (H.R. 4297) to amend the Marine Protection, Research, and Sanctuaries Act of 1972 to authorize appropriations to carry out the provisions of such act for fiscal year 1978.

The SPEAKER pro tempore (Mr. BRADEMAS). The question is on the motion offered by the gentleman from Louisiana (Mr. BREAUX).

The motion was agreed to.

IN THE COMMITTEE OF THE WHOLE

Accordingly the House resolved itself into the Committee of the Whole House on the State of the Union for the consideration of the bill H.R. 4297, with Mr. SHARP in the chair.

The Clerk read the title of the bill.

By unanimous consent, the first reading of the bill was dispensed with.

The CHAIRMAN. Under the rule, the gentleman from Louisiana (Mr. BREAUX) will be recognized for 30 minutes, and the gentleman from Michigan (Mr. RUPPE) will be recognized for 30 minutes.

The Chair recognizes the gentleman from Louisiana (Mr. BREAUX).

Mr. BREAUX. Mr. Chairman, the bill under consideration today will authorize the appropriation of funds to programs which address a problem of national importance.

According to the Environmental Protection Agency's annual report on ocean dumping, 2.7 million tons of industrial wastes and 5.3 million tons of sewage sludge were dumped into the waters off the coasts of the United States in 1976. Of the total amount of materials dumped into the oceans, over 90 percent or 94 million tons was dredge spoil.

Ocean dumping adversely effects the marine environment in and around areas where the dumping occurs. The site where the city of New York dumps its sewage sludge, which is located 12 miles out from the mouth of the Hudson River, has been characterized as a marine desert. This general region, known as the New York Bight, has been an area of intense study by the National Oceanic and Atmospheric Administration.

The combined effects of raw sewage, land runoff and industrial discharges flowing from the Hudson River, air pol-

lution fallout, and ocean dumping have severely stressed the ecological systems of the New York Bight. I might add, Mr. Chairman, that ocean pollution and especially ocean dumping has prompted the Food and Drug Administration to close one-fifth of this Nation's shell fishing beds.

In 1972, the Congress passed the Marine Protection, Research, and Sanctuaries Act. It is the expressed intent of this Act, commonly known as the Ocean Dumping Act, to prohibit or strictly limit the dumping into ocean waters of any material which would adversely affect the marine environment.

H.R. 4297 would authorize 4.8 million dollars to EPA to carry out its responsibilities under title I of the act. This title requires EPA to establish an ocean dumping permit program, designed to bring under control and eliminate the large quantities of harmful industrial wastes, municipal sewage sludge, and dredge material being dumped into the waters off our coasts each year. In addition, title I gives the Army Corps of Engineers authority over dredged material dumping and authorizes the U.S. Coast Guard to provide surveillance over all ocean dumping activities.

The moneys authorized by H.R. 4297 will enable EPA to continue the work on gathering baseline data on existing ocean dumpsites. Such data provides the marine scientists with information as to the original conditions at the dumpsites so that they may measure and monitor the possible degradation of the marine environment in and around the dumpsite.

In addition, EPA requires funds to assess the environmental impact of materials before they are dumped into the ocean. These include tests to determine concentrations of toxic compounds, pathogens, and carcinogens. Such information is employed in the decision as to whether or not a dumping permit should be issued by EPA. Since the permit program has been in effect, EPA has phased out or denied permits to 248 former or potential ocean dumpers.

As a condition to receiving a permit, the EPA requires all sewage sludge dumpers and most industrial waste dumpers to adopt and implement land-based alternatives to ocean dumping. To insure that these phaseout schedules are met, EPA must closely monitor the progress of this group of approximately 70 interim permit holders.

On June 15, the Subcommittees on Oceanography and Fisheries and Wildlife Conservation and the Environment convened hearings to investigate the problems associated with phasing out, as soon as possible, those municipalities which are ocean dumping sewage sludge. We were pleased to learn that one sewage sludge dumper, Camden, N.J., is developing a composting alternative similar to the system currently employed by the Washington, D.C., area. According to the mayor of Camden, that city will completely phase out ocean dumping by the end of this year.

In additional oversight hearings held on September 20, the subcommittees learned that neither New York City nor

Philadelphia have decided upon the alternative they will have to implement by December 31, 1981. This 1981 deadline was established by the EPA in rules and regulations published in January of this year.

Mr. Chairman, the bill under consideration includes an amendment which would prohibit the EPA from issuing any permit authorizing the ocean dumping of harmful sewage sludge after December 31, 1981. The intent of this amendment is to provide added assurance that the municipalities currently engaged in this activity will phase out their sewage sludge dumping by December 31, 1981. This amendment is consistent with EPA's regulations and it is supported by the administration.

Title II of the Ocean Dumping Act directs the Secretary of Commerce through the National Oceanic and Atmospheric Administration to monitor and research the effects of ocean dumping, to investigate the long-range effects of pollution, overfishing, and man-induced changes to ocean ecosystems, and to research alternatives to ocean dumping. H.R. 4297 would authorize \$6 million to the Department of Commerce for title II.

There are currently 11 active non-dredged material dumpsites and over 120 dredged material dumpsites located off the coasts of the United States. To date, monitoring surveys have been conducted on 5 of the 11 nondredged material dumpsites. The monitoring of dumpsites is an expensive operation. According to EPA, the cost of one monitoring cruise alone is on the order of \$200,000 to \$400,000. A complete baseline survey requires anywhere from two to four such cruises. The monitoring of one dumpsite alone requires at least two such cruises a year.

I feel the authorization levels included in H.R. 4297 provide the opportunity for NOAA to initiate a long overdue ocean pollution research program. In addition, H.R. 4297 will provide a funding level that will allow EPA and NOAA to more adequately monitor and study ocean dumping activities.

Finally, H.R. 4297 authorizes \$500,000 for the Department of Commerce to designate and regulate areas of the oceans as marine sanctuaries. Recently this program has received special attention by President Carter. In his environmental message delivered on May 23, 1977, President Carter made specific reference to the marine sanctuaries program mandated under title III and its potential as a means to protect areas of the Continental Shelf against resource development.

The Marine Protection, Research, and Sanctuaries Act of 1972, is one of a myriad of laws passed over the last decade intended to protect our environment. I feel that during the next decade, the collective vigilance of those of us concerned with oceanic matters will be required to ensure the protection of the marine environment. As land, air, and fresh-water-based waste disposal and pollution activities become increasingly more restrictive, it is important that the oceans be afforded comparable protection.

H.R. 4297 will help to accomplish this important national goal and I urge my colleagues to support this bill.

Mr. RUPPE. Mr. Chairman, I yield myself such time as I may consume.

Mr. Chairman, H.R. 4297 would authorize appropriations for fiscal year 1978 to carry out programs under titles I, II, and III of the Marine Protection, Research, and Sanctuaries Act of 1972. This act, commonly referred to as the Ocean Dumping Act, establishes regulatory control over the dumping of certain types of material into U.S. waters, and specifically prohibits the dumping of materials into waters which are harmful to the marine environment.

Title I of the act gives EPA primary regulatory authority in conjunction with the Corps of Engineers and the Coast Guard, over title I activities including the establishment of permit categories, the designation of sites and times of dumping, and the assessment of alternative means of waste disposal other than ocean dumping. We feel that this ongoing assessment of alternatives is of critical importance in order to: First, continually evaluate the overall effectiveness of new waste disposal technologies; and second, to implement these technologies in an efficient and timely manner. For title I programs in fiscal year 1978, H.R. 4297 would authorize appropriations of \$4.8 million.

Title II of the act directs the Secretary of Commerce in cooperation with EPA to develop a comprehensive program which would include research and monitoring of the effects of ocean dumping and other man-induced changes in the marine ecosystem. This research activity is essential if we are to begin to understand the long-term effects of man's activities on the entire ocean system. This research, including studies of biological, chemical, and physical effects of ocean dumping and marine pollution generally, will provide more understanding regarding the overall waste-assimilative capacity of the marine environment. This information can aid us in making more sound decisions regarding the effectiveness of one form of waste disposal as compared to another form in terms of both environmental protection and economic efficiency. For title II, H.R. 4297 would authorize appropriations of \$6 million for fiscal year 1978.

Title III of the Ocean Dumping Act directs the Secretary of Commerce to designate certain areas of the marine environment as sanctuaries, and issue regulations in order to preserve certain features of a particular area. H.R. 4297 would authorize appropriations for this portion of the act at a level of \$0.5 million.

Finally, the bill was amended in our committee to require that all ocean dumping of sewage sludge which may unreasonably degrade human health and the marine environment to cease by December 31, 1981. The reason why the committee agreed to this amendment was our loss of confidence in EPA's ability to compel certain municipalities to adopt environmentally safe land-based alternatives to ocean dumping in the absence

of a statutorily mandated termination date.

Mr. Chairman, we feel that this is an important authorization bill and therefore I strongly urge my colleagues to act favorably on H.R. 4297.

Mr. WYDLER. Mr. Chairman, those of us who live in coastal areas which have already been heavily impacted by ocean dumping are constantly aware of the problems associated with this environmental outrage.

For years, tens of millions of tons of sewage sludge, contaminated fill material, and highly toxic industrial chemical wastes have been routinely dumped in the Bight of New York. The results have been catastrophic. A marine desert has formed in which virtually all valuable marine life has been destroyed.

Ocean dumping is the obvious source of marine biological disasters on an unprecedented scale. The adverse impacts of those who make their living on or near the water, as well as on those coastal communities which periodically suffer major disasters when wind and tide conditions bring pollutants ashore is almost beyond conception. Within the past 15 months, there have been several instances of such onshore conditions which have caused all of the beaches on Long Island to be closed due to the serious threat to the health and welfare of the general public. Each such incident represents an economic disaster to those who make their living from the water. It represents a societal disaster when an area as thickly populated as the Northeast loses a major portion of its recreational beaches for a period. And most importantly, it represents the very real danger of a major health disaster in which the lives of tens of thousands of people are at stake.

Mr. Chairman, when the Committee on Science and Technology considered this legislation, I offered an amendment to add \$500,000 for the specific purpose of conducting studies in the New York Bight area. While the ocean dumping program is carried out in NOAA, I hope that most of these funds will be passed through to the Environmental Protection Agency Region II Office for both near- and long-term studies. I am also glad to report, Mr. Chairman, that my amendment received unanimous support from the members of the Committee on Science and Technology.

For those of us who must live with the problems of ocean pollution resulting from ocean dumping on a daily basis, the need for immediate action is of the highest priority. I fully support the legislation before the House and I urge my colleagues to vote for this bill. The work being done under this legislation is crucial to understanding the long-term fates and effects of pollutants dumped into the marine environment.

Mr. EVANS of Delaware. Mr. Chairman, I rise in strong support of H.R. 4297, and its December 31, 1981, ban on dumping of harmful ocean sludge. The provisions of the measure are both necessary and reasonable, and I urge my House colleagues to give the bill, as reported by the Merchant Marine and

Fisheries Committee, their favorable consideration.

In 1972, the Congress, in the Marine Protection, Research, and Sanctuaries Act of that year, stated the policy that "unregulated dumping of material into ocean waters endangers human health, welfare, and amenities, and the marine environment, ecological systems and economic potentialities." Title II of that act also specifies that the Secretary of Commerce conduct research and other studies "for the purpose of determining means of minimizing or ending all dumping of materials within 5 years of the effective date of this act."

These lofty goals were, and still are, highly commendable. But the simple truth of the matter is that Congress, and the Environmental Protection Agency, have somehow forgotten about that statement. In the period 1973-76, over 38 million tons of industrial waste, sewage sludge, and construction debris were dumped into the waters off the coast of the United States.

A few weeks ago, the city of Philadelphia received another interim permit which will allow them to dump 95 million pounds of sludge off the coast of my State. That works out to about 173 pounds of sludge per man, woman, and child in Delaware.

Even worse than the amount of the material dumped in the oceans is its toxic effect on the marine environment. For instance, toxic heavy metals—including mercury, cadmium, zinc, arsenic, copper, and lead—can kill marine life and can produce sublethal effects, including reduced species vitality or growth, reproductive failure, and interference with sensory functions. The toxic effect of such heavy metals in marine plants and animals may be persistent and cumulative over a long period. Shellfish are known to concentrate heavy metals in their tissues, which, if eaten, pose a health danger to man. Organisms feeding on marine plant life pass the pollutants on to higher organisms, and, as this process moves through the food chain, concentrations reach their highest levels in marine mammals, birds, and man.

In the 1972 Report on Marine Water Quality Criteria, the National Academy of Sciences suggested that there be no artificial additions of cadmium to the marine environment so that inputs of mercury, beyond those occurring naturally, should be eliminated. EPA itself has established regulations which set concentration levels of mercury and cadmium, which it believes if exceeded, would endanger the ocean environment. But, according to a GAO study released on January 21, 1977, all sewage sludge dumped into the ocean exceeded the EPA established levels for cadmium or mercury. The 26 municipal permit holders in the New York-northern New Jersey area were dumping sewage sludge containing either cadmium or mercury which exceeded by more than 100 times the established safety levels. Additionally, according to the permit issued to Philadelphia in 1975, that city's sludge also contained high concentrations of

these substances. The sludge from one or two Philadelphia treatment plants, whose sludge is dumped into the ocean, exceeded allowable cadmium and mercury safety levels by 175 and 5 times, respectively. At the other plant, the sludge was 54 times greater than safety levels for cadmium and 5 times more than for mercury.

Less than 1 year after the Philadelphia dump site was moved in 1973, clams and scallops taken from the areas surrounding the new site had accumulated high levels of cadmium. EPA has also reported that the sewage sludge dumped in 1974 in the Atlantic contained about 24 tons of cadmium and the sludge dumped in the New York Bight alone contained about 2 tons of mercury. As more and more of these materials are dumped, there is a greater and greater risk to marine life around dumping sites.

Mr. Chairman, the January GAO report goes on to list other adverse effects of ocean dumping of sewage sludge and industrial waste, including economic effects, oxygen depletion, and the biostimulation or accelerated fertilization of plant life such as algae. I ask unanimous consent that this portion be included at the conclusion of my remarks. (See exhibit A.)

Mr. EVANS of Delaware. Mr. Chairman, the ocean is not a cesspool nor is it a garbage pit. The precious marine environment cannot tolerate, for an indefinite length of time, continued dumping of toxic sludge. Our ocean resources are a priceless source of esthetic, recreational, and economic benefits to millions of Americans on the east coast alone, yet the continuous dumping of sludge presents a clear and dangerous threat to that resource. The legislation before the House today seeks in a reasonable and responsible manner to deal with this environmental threat. The amendment offered by my good friend from New Jersey, Mr. HUGHES, requires that the Administrator of the Environmental Protection Agency suspend the dumping of sewage sludge into ocean waters as soon as possible and, in any event, by December 31, 1981. I must point out that this date—December 31, 1981—was taken directly from present EPA regulations, and in fact, legislation merely codifies the good intentions of the Environmental Protection Agency.

In fact, every permittee which now ocean dumps is under an implementation plan to phase out ocean dumping by not later than 1981. This includes the city of New York and the city of Philadelphia, which have indicated to our committee that they plan to be out of ocean dumping prior to the end of the December 31, 1981 deadline. I ask unanimous consent that a listing of the permittees on implementation plans phase out ocean dumping in EPA regions II and III which appear in the fifth annual report of the Environmental Protection Agency on Administration of Title I of the Marine Protection, Research and Sanctuaries Act of 1972 be included in the RECORD at the conclusion of my remarks. (See exhibit B.)

Mr. EVANS of Delaware. In short, Mr. Chairman, the legislation before

us today goes no further than existing EPA regulations. In fact, it goes no further than the stated objectives of the various cities and municipalities and other persons who are, in fact, dumping in the ocean right now. I simply cannot conceive of how the committee could be more reasonable on this matter.

H.R. 4297, gives municipalities over 4 years from today to finish phasing out their ocean dumping and find alternatives means of disposing of sewage sludge. This deadline would be implemented fully 9 years after the Congress stated the national policy required the ending of harmful ocean dumping, and almost 4 years after our stated goal in the 1972 act. For too long we have allowed municipalities and other persons to use the precious resources of the ocean as their own private garbage pit. The time has come for this Congress to end this wholesale abuse of our ocean resources. The bill before the House today offers a way to accomplish that goal without placing undue hardships on any municipality.

It is time to end ocean dumping once and for all. This legislation will do just that.

EXHIBIT A

APPENDIX II.—ADVERSE EFFECTS OF OCEAN DUMPING OF SEWAGE SLUDGE AND INDUSTRIAL WASTES

We reviewed several studies concerning the ocean dumping of sewage sludge and industrial wastes. The studies were prepared by such organizations as the:

Council on Environmental Quality.
U.S. Army Corps of Engineers Coastal Engineering Research Center.
National Academy of Sciences.
National Oceanic and Atmospheric Administration.

Most of the studies agreed that, although additional research was needed, ocean dumping does produce harmful effects to the marine environment. The following sections describe in more detail the adverse effects that may result from ocean dumping.

HEAVY METALS CONTAMINATION

Toxic heavy metals—including mercury, cadmium, zinc, arsenic, copper, and lead—can kill marine life and can produce sublethal effects, including reduced species vitality or growth, reproductive failure, and interference with sensory functions.

The toxic effects of heavy metals in marine plants and animals may be persistent and cumulative over a long period. Shellfish are known to concentrate heavy metals in their tissues which, if eaten, pose a health danger to man. Organisms feeding on marine plant life pass the pollutants on the higher organisms, and, as this process moves through the food chain, concentrations reach their highest levels in marine mammals, birds, and man.

In a 1972 report on marine water quality criteria, the National Academy of Sciences suggested that there should be no artificial additions of cadmium to the marine environment and that inputs of mercury, beyond those occurring naturally, should be eliminated. Other studies concerning heavy metals contamination have reported:

Concentrations of heavy metals in the New York Bight exceeded permissible limits. One study found concentrations of copper which indicated widespread copper contamination.

While 10 parts per million (ppm) of zinc in sea water is considered toxic to marine life, one analysis showed that an average of 2,459 ppm of zinc was contained in sewage sludge.

After less than 1 year of dumping at the present Philadelphia sewage sludge dump site, clams and scallops had accumulated high levels of four metals at one or more survey stations in the 1,000-square-mile area surrounding the dump site.

The abnormal concentrations of heavy metals, microorganisms, and organic materials were correlated with reduced species diversity and generally impoverished bottom-dwelling populations in the New York Bight dumping area. Very few juvenile rock crabs were present, and adult crabs found on the sludge beds were frequently diseased or moribund. Since the sewage sludge dump site in this area is in the path of crabs and lobsters which seasonally migrate from inshore to offshore waters, this study concluded that the wastes resulted in the mortality of migrating crustaceans.

Preliminary results of another study of the New York Bight dumping area showed that fish had higher than normal levels of heavy metals in their tissues. An analysis of fish for mercury showed that weakfish with fin-rot disease had the greatest amount of mercury in their tissues. Compared with weakfish collected off the Virginia coast, which had an average of 0.31 ppm in liver tissue, diseased fish from the New York Bight had an average of 0.54 ppm in the liver tissue.

HEALTH HAZARDS

Human health can be affected by direct contact with polluted water during recreational or other activities and also by consuming contaminated fish or shellfish.

Sewage sludge contains pathogens from human fecal matter. Pathogens are bacteria and viruses that cause diseases. Viruses are the smallest known pathogenic entities and are capable of causing a variety of severe, sometimes fatal, diseases. There is concern that, even in ocean waters, viruses may survive for a period of days to weeks following discharge.

The Council on Environmental Quality recommended in 1970 that the ocean dumping of sewage sludge with large quantities of pathogens be stopped as soon as possible. About 40 percent of all sludge dumped in the New York Bight is of this type.

Another health hazard involves the human ingestion of contaminated fish. One report indicated that many of the cases of infectious hepatitis in the United States in 1972 were traced to the eating of raw shellfish taken from sewage-polluted coastal regions.

ECONOMIC EFFECTS

The coastal areas are used for recreational purposes, including swimming, boating, and sport fishing, and for commercial fishing and shellfishing, each of which has economic value to the area served.

Ocean pollution has three broad effects detrimental to various segments of the fishing industry.

Closure of areas to fishing and shellfishing. Prohibiting sale of products because of contamination.

Impact on mortality, growth, and reproduction rates of living marine resources.

A major loss to the economy is incurred when commercially valuable fish and other seafood species are killed directly or indirectly or rendered inedible by ocean pollution. The Council on Environmental Quality estimated that in 1969 the U.S. shellfish industry incurred losses of about \$63 million, or about 20 percent of the value of the potential catch, due to pollution.

One difficulty in evaluating the economic impact of pollution is the attachment of dollar values to the social costs which are outside the usual market pricing system. Calculating the monetary value of ocean-related activities that may be affected by pollution in near-shore areas is difficult.

The New Jersey Department of Environmental Protection reported in 1974 that the pollution of the New York Bight poses a po-

tential threat to the proposed Gateway National Recreation area. This area is expected to serve 15 million visitors each year.

OXYGEN DEPLETION

Oxygen is necessary for the support of marine and aquatic life and for the biological degradation of organic materials. The ocean dumping of heavy loads of organic wastes depletes the oxygen level of the water necessary to support life and alters the diversity of marine organisms. Oxygen deficiency in an area may be self-perpetuating. The accumulation of organic matter, sulfides, and some metals can act as a reservoir of future oxygen demand. Even after the disposal of the organic matter is stopped, it may be a long time before the area recovers.

Sewage sludge contains organic materials. In the New York Bight, where sewage sludge has been dumped for more than 50 years, the oxygen concentration as a percent of saturation declined from 61 percent in 1949 to 29 percent in 1969 and was as low as 10 percent in the center of the dump site. During late July through mid-October, the dissolved oxygen content of bottom waters over the sewage sludge dump site in the New York Bight is frequently less than two parts per million over several miles and is insufficient to support marine life. One study showed that sizable areas of the sea floor in the New York Bight, primarily near the sewage sludge dump site, were nearly devoid of marine life.

BIOSTIMULATION

Biostimulation is the accelerated fertilization of plant life, such as algae. This condition produces excessive quantities of plant life. When these plants die, oxygen necessary to support marine life is used in their decomposition. This process changes the nature of bottom sediments and, thus, whole communities of bottom-dwelling organisms.

Sewage sludge is rich in nutrients, such as phosphates and nitrates, that cause biostimulation. For example, areas which formerly supported surf clams in sand may become covered with algal mud, a situation to which the surf clams cannot adapt.

A report issued by the New Jersey Department of Environmental Protection in January 1974 indicated that biostimulation caused by the addition of too much of a necessary nutrient or of unnatural nutrients may have contributed to plankton blooms which have plagued some of our shore areas for several years. This has caused aesthetic and recreational problems as well as concern for the safety of marine life harvested for consumption.

TABLE 6.—Permittees on implementation plans to phase out ocean dumping

REGION II	
Company, location, and phaseout date	
American Cyanamid Co., Linden, NJ, 1980.	
Middletown Sewer Authority, Belford, NJ, 1981.	
Passaic Valley Sew. Comm., Newark, NJ, 1981.	
Allied Chemical Corp., Morristown, NJ, 1981.	
The Upjohn Manuf. Co., Barceloneta, PR, 1979.	
E.I. duPont de Nemours, Linden, NJ, 1981.	
City of Long Beach, Long Beach, NY, 1981.	
Middlesex Co. Sew. Auth., Sayreville, NJ, 1981.	
New York City, New York, NY, 1981.	
Merck & Co., Inc., Rahway, NJ, 1981.	
NL Industries, Inc., So. Amboy, NJ, 1981.	
Modern Transportation Co., So. Kearney, NJ, 1978.	
Bergen Co. Sew. Authority, Little Ferry, NJ, 1981.	
Linden Roselle-Rahway Valley Sew. Auth., Linden, NJ, 1981.	
Joint Meeting, Elizabeth, NJ, 1981.	

Pfizer Pharmaceuticals, Inc., Barceloneta, PR, 1979.

Merck Sharp & Dohme, Barceloneta, PR, 1979.

County of Nassau, Mineola, NY, 1981.

County of Westchester, White Plains, NY, 1981.

West Long Beach Sew. Dist., Atlantic Beach, NY, 1981.

Oxochem Enterprises, Ponce, PR, 1977.

Puerto Rico Olefins Co, Ponce, PR, 1978.

Whippany Paper Board Co., Whippany, NJ, 1977.

IMC Chemicals Co., Newark, NJ, 1977.

City of Glen Cove, Glen Cove, NY, 1981.

Reheis Chemical Company, Berkeley Hts., NJ, 1978.

Briston Alpha Corporation, Barceloneta, PR, 1979.

S.B. Penick & Co., Montville, NJ, 1977.

Pfizer, Inc., Parsippany, NJ, 1977.

J.T. Baker Chemical Co., Phillipsburg, NJ, 1977.

Keuffel & Esser, Morristown, NJ, 1977.

Schering Corp., Manati, PR, 1979.

General Marine, Bayonne, NJ, 1978.

Crompton and Knowles, Reading, PA, 1979.

City of Camden, Camden, NJ, 1977.

E.I. duPont de Nemours, Edgemoore, DE, 1980.

Caldwell STP, Caldwell, NJ, 1978.

Kearny STP, Kearney, NJ, 1981.

Matawan Township MUA, Matawan Township, NJ, 1977.

Neptune Township STP, Neptune Township, NJ, 1978.

Ocean Grove STP, Ocean Grove, NJ, 1978.

West New York STP, West New York, NJ, 1981.

Wood-Ridge STP, Wood-Ridge, NJ, 1981.

Oakland STP, Oakland, NJ, 1978.

Pompton Lakes STP, Pompton Lakes, NJ, 1978.

Wanaque STP, Wanaque, NJ, 1980.

Wayne STP, Wayne, NJ, 1978.

Cedar Grove STP, Cedar Grove, NJ, 1981.

Chatham STP, Chatham, Township, NJ, 1981.

Fairfield STP, Fairfield, NJ, 1977.

Morris STP, Morris Township, NJ, 1981.

Pequanock STP, Pequanock, NJ, 1980.

Roxbury STP, Roxbury Township, NJ, 1981.

Totowa STP, Totowa, NJ, 1981.

Lincoln Park STP, Lincoln Park, NJ, 1979.

Warren STP, Warren Township, NJ, 1977.

Washington MUA, Washington Township, NJ, 1981.

West Milford MUA, West Milford, NJ, 1977.

Spring Lake Heights STP, Spring Lake Heights, NJ, 1977.

Montville Township MUA, Montville, NJ, 1977.

Wynnewood S. U. Co., Freehold, NJ, 1977.

Asbury Park STP, Asbury Park, NJ, 1981.

Avon-by-the Sea STP, Avon-by-the-Sea, NJ, 1977.

Belmar STP, Belmar, NJ, 1977.

Atlantic Highlands STP, Atlantic Highlands, NJ, 1981.

West Paterson STP, West Paterson, NJ, 1980.

Passaic Township STP, Passaic Township, NJ, 1981.

Washington Township MUA, Washington Township, NJ, 1981.

Northeast Monmouth County Region Sewerage Auth., Monmouth Beach, NJ, 1981.

REGION III

City of Philadelphia, Philadelphia, PA, 1981.

Mr. BROWN of California. Mr. Chairman, the Committee on Science and Technology received a sequential referral of this bill because of our jurisdiction over environmental research and development. The Committee on Science and Technology has historically been deeply concerned with research and develop-

ment generally; environmental research and development on ocean-related topics is of special concern, including research on both short-term and long-term effects of ocean dumping. Given the present strain on marine fisheries resources and the present load of contaminants flowing into the oceans of the world, the interest in deep seabed mining, and increasing exploitation of other ocean resources, it is imperative that we understand the long-term fates and effects of these uses of the oceans. At present, we do not have a sufficient data base to predict the impact of ocean dumping on the marine ecosystem.

Last March, the Subcommittee on the Environment and the Atmosphere held hearings on the National Oceanic and Atmospheric Administration budget proposal for fiscal year 1978. During the course of those hearings, we carefully examined their proposals pertaining to research on the effects of ocean dumping. As a result of those hearings and other information received from the ocean research community, our committee has made four relatively general recommendations dealing with ocean dumping research. The first is that research to improve the basic understanding of the dynamics of oceans, including biology, ocean chemistry, currents, seasonal changes, ocean-atmosphere interactions, benthic-water column interactions, should all be carried out. Ocean dumping should be viewed as a perturbation of a well-understood dynamic system. The committee's second recommendation is that research and development of indices of environmental quality to measure the effects of ocean dumping should be accomplished. Such new methods to measure and predict the impact of ocean dumping might include new bioassay tests. Our third recommendation is that a long-term program of baseline studies to establish points of reference against which to measure trends, changes and natural fluctuations should be developed. Our final recommendation is that information on basic processes of pollutants and their interactions with the environment should be collected so that pollution toxicity can be predicted.

The Committee on Science and Technology strongly supports the research and development work that is currently being undertaken by the federal government and would like to see an expanded program in the ocean dumping area. For this reason, our committee has agreed with the Merchant Marine and Fisheries Committee in the recommendations to increase funding rather than having the agencies internally reprogram funds for this research.

I should mention that our committee unanimously accepted an amendment to the bill which would provide an increase of \$500,000 to assure that resources are available for the research, development and, ultimately, demonstration of advanced technology for comprehensive monitoring and modeling of ocean dumping effects in the New York Bight. Expanded water quality monitoring designed predict on a real-time basis the effect, fate, and distribution of pollutants which might adversely impact the use of ocean waters adjacent to and off-

shore of the Long Island and New Jersey coasts could be conducted in the New York Bight. The environmental episodes of 1976 which included fish kills, oil and toxic chemical spills, and the closure of public beaches has clearly demonstrated the need to identify the sources as well as the magnitude of these causative pollutants.

Mr. Chairman, I would like to make the point that the Committee on Science and Technology has found in the past that support for environmental research, particularly long-term research projects, has often been inadequate to support regulatory programs. We believe that ocean dumping is another case in point, and we strongly urge the agencies involved to take whatever steps that may prove necessary to make sure that the results of environmental research and development in the ocean dumping area be used to support a better regulatory program in the future.

Mr. Chairman, I fully support this bill and I urge my colleagues to join me in voting in favor of the legislation.

Mr. LEGGETT. Mr. Chairman, I rise in support of H.R. 4297. We have come a long way under the Ocean Dumping Act toward ending the use of the ocean as a garbage pit. Since the Act went into effect 4 years ago 248 former or potential ocean dumpers have been kept out of the ocean.

That is the good news. The bad news is that the total tonnage of waste dumped into the ocean annually has not diminished appreciably in the same period of time. Last year some 8.3 million tons of industrial and municipal waste and construction debris was dumped into ocean waters off of our shores. This compares with 10.9 million tons dumped in 1973. This high rate of ocean dumping continues despite an embarrassing lack of knowledge about the effect that this dumping has on the marine environment.

The total volume dumped has not declined because of an inability to solve the increasingly acute sewage sludge disposal problem. While all other categories of material has declined in volume, the amount of sewage sludge has increased, primarily as a result of increased sewage treatment.

Mr. Chairman, I believe that we are on the verge of solving the sewage sludge dilemma. Regulations promulgated by the Environmental Protection Agency—EPA—set 1981 as a deadline for the dumping of sludge by the last three urban areas using the ocean as a disposal site. The committee has received assurances from two of those communities that they will be out of the ocean before the termination date, and the EPA is hopeful that the New York-New Jersey area will implement alternatives to ocean dumping by 1981.

H.R. 4297 insures that the EPA's hopes will be realized. It makes it clear that no interim permits can be issued to sludge dumpers after 1981.

We cannot continue to regard the ocean as a food resource, recreation area, and cesspool. H.R. 4297 insures that the handful of communities still dumping sludge into the ocean will be orderly, but

firmly shifted to land-based alternatives.

In addition to setting a deadline for the ocean dumping of sewage sludge, H.R. 4297 authorizes appropriations of \$11.8 million to EPA and the National Oceanic and Atmospheric Administration to carry out the Ocean Dumping Act. These funds would go to administering the permit program, researching the effects of dumping and investigating environmentally acceptable alternatives to ocean dumping. The cost of this program is minimal when compared to the potential benefits associated with preserving our priceless coastal waters.

The Subcommittee on Fisheries and Wildlife Conservation and the Environment only this morning conducted a briefing on the status of the shellfish industry and the effect of pollution on this industry. The Department of Commerce indicates that the shellfish industry has ceased harvesting in over 18.5 percent of the shellfish waters because of intolerable levels of pollution. The acreage closed to shellfish production is increasing every year.

Estimating the financial loss associated with ocean pollution is difficult at best, but one source has put the loss to the shellfish industry at \$226 million between 1966 and 1975. And this is merely the loss to one industry. When we calculate the damage to other ocean resources we can see that the research funds in this bill would be well spent.

The damage associated with ocean pollution is not limited to the impact on ocean resources. Over the last year the New Jersey and Maryland shore communities have witnessed the impact that ocean pollution can have on an important recreational resource. Last year New York beaches were closed for weeks in mid-summer due to an accumulation of trash and other materials. During the same summer the water off of New Jersey dropped to a disturbingly low oxygen level resulting in a massive fish kill on the New Jersey beaches.

These episodes illustrate the poor condition of our coastal waters. They also illustrate how much work is left to be done on the long-term effects of ocean pollution.

Mr. MURPHY of New York. Mr. Chairman, H.R. 4297 is a bill to continue the authorization of fiscal year 1978 funds to implement the Marine Protection, Research, and Sanctuaries Act.

This legislation, commonly known as the "Ocean Dumping Act," was overwhelmingly passed by the Congress 5 years ago. It provides for the regulation of all material being dumped into the ocean and authorizes research on the effects of such dumping on the ocean environment.

This program has played an important role in protecting our Nation's vital ocean and coastal resources from further degradation. Since 1972, through its ocean dumping permit program, the Environmental Protection Agency—EPA—has phased out 248 former or potential industrial waste dumpers. EPA's final revision of regulations and criteria for ocean dumping, published in the Federal Register on January 11, 1977, represent a substantial improvement in the proce-

dures by which permits are administered. These regulations also declare a deadline of 1981 for the termination of all sewage sludge dumping which cannot meet EPA established criteria.

Despite this progress, it must also be noted that the administration of this ocean dumping program has been uneven. The Merchant Marine and Fisheries Committee has expended much time and effort in overseeing the administration of the EPA and Army Corps of Engineers programs established under title I of the act.

Much of the progress which I have just delineated is a result of increased pressure on EPA—pressure brought to bear by our committee.

Nevertheless, severe problems remain in the fulfillment of our national policy to cease all harmful ocean dumping as soon as possible.

Although many former ocean dumpers have adopted environmentally acceptable land-based alternatives for disposal, the volume of sewage sludge dumped into the ocean has steadily increased. This apparent inconsistency is a result of higher levels of waste treatment being required at both municipal and industrial facilities. Clearly, there is little that can be done to reduce the volume of sludge being generated in ever increasing amounts as municipalities install more advanced forms of sewage treatment.

One can only speculate about the levels of pollution which would have occurred in the last 5 years had the ocean dumping program not been established. Although that information may be impossible to obtain, it is clear that the pressures for unreasonable degradation of the marine environment will continue. Consequently, our present regulatory program must be continued to minimize the harmful effects of ocean dumping.

This bill authorizes \$4.8 million in fiscal year 1978 for title I. This title provides for mandatory regulation of the dumping of harmful wastes into the ocean.

Title II, which provides for research by the National Oceanic and Atmospheric Administration—NOAA—into the long-term effects of ocean pollution, is authorized at \$6.5 million in fiscal year 1978.

Title III, the marine sanctuaries program administered by NOAA, is authorized in the next fiscal year at \$500,000.

The fiscal year has already begun. We cannot afford to wait any longer for this authorization. Therefore, I urge prompt consideration and passage of H.R. 4297. This piece of legislation contains a statutory termination date for the dumping of municipal sewage sludge. Although sympathetic to the purposes for which the provision was added in subcommittee, I am concerned about the inflexibility which it creates. Therefore, I will be offering an amendment to that provision when we take up the bill for final consideration.

Mr. Chairman, I yield the rest of my time to the gentleman from Louisiana (Mr. BREAU), the chairman of our Oceanography Subcommittee.

Mr. RUPPE. Mr. Chairman, I yield back the balance of my time.

Mr. WALKER. Mr. Chairman, the Marine Protection, Research and Sanctuaries Act of 1972 which is commonly known as the Ocean Dumping Act, established a policy to prohibit, or strictly limit, the dumping of materials harmful to the marine environment. The act is organized in three sections: Title I specifies how ocean dumping shall be regulated and directs the Environmental Protection Agency to establish a permit program. In addition, title I gives the Army Corps of Engineers authority over dredged material dumping and authorizes the Coast Guard to provide surveillance over all ocean dumping activities. While three agencies are mandated responsibilities under title I, only the Environmental Protection Agency is authorized to be appropriated funds. Title II of the act deals primarily with research needed to carry out the intent of the act, to limit the ocean dumping of harmful materials. Three separate responsibilities are delegated to the National Oceanic and Atmospheric Administration under title II. One, to monitor and research the effects of ocean dumping. Two, to investigate the long-range effects of pollution, over fishing and man-induced changes in ocean ecosystems. And, three, to research alternatives to ocean dumping.

This bill, which contains the authorization for fiscal year 1978 funding for the Marine Protection, Research and Sanctuaries Act of 1972, was sequentially referred to the Committee on Science and Technology based on the committee's jurisdiction over environmental research and development. The Subcommittee on the Environment and the Atmosphere held hearings on March 3, 1977, at which NOAA witnesses presented their proposed fiscal year 1978 budget for research on effects of ocean dumping under the act.

The report of the Committee on Science and Technology and Chairman Brown's statement have clearly set out our concerns in this area and our support of this legislation. Our committee has historically been deeply concerned with research and development generally, and with environmental research and development on ocean-related topics in particular. Under the present serious strain on marine fisheries resources and the current load of contaminants entering the marine environment, we see an ever-increasing exploitation of ocean resources. It is imperative that we understand the effects of these uses and misuses of the oceans. At present, we do not even have a sufficient data base to predict the impact of ocean dumping on the marine ecosystem.

I would particularly like to point out that our colleague, Mr. WYDLER of New York, offered an amendment to add \$500,000 for studies of ocean dumping in the New York Bight area of the coasts of Long Island and New Jersey which was adopted unanimously by the Committee on Science and Technology. This year alone nearly 10 million tons of sewage sludge filled with material and chemical wastes will be dumped, and there is no relief in sight. At the current time, numerous Federal agencies, including

NOAA and EPA, are involved in bight-related research. The funds included in the Wylder amendment are expected to assure that additional resources required for a comprehensive monitoring program will be made available to these Federal agencies during fiscal year 1978.

In conclusion, Mr. Chairman, I join with my colleague from the Committee on Science and Technology, Mr. BROWN, and with the members of the Committee on Merchant Marine and Fisheries in supporting this legislation and I urge my colleagues to vote in favor of the bill.

Mr. BREAUX. Mr. Chairman, I have no further requests for time, and I yield back the balance of my time.

Mr. Chairman, I move that the Committee do now rise.

The motion was agreed to.

Accordingly the Committee rose; and the Speaker pro tempore having assumed the chair, Mr. SHARP, Chairman of the Committee of the Whole House on the State of the Union, reported that that Committee, having had under consideration the bill (H.R. 4297) to amend the Marine Protection, Research, and Sanctuaries Act of 1972 to authorize appropriations to carry out the provisions of such act for fiscal year 1978, had come to no resolution thereon.

GENERAL LEAVE

Mr. BREAUX. Mr. Speaker, I ask unanimous consent that all Members may be permitted to revise and extend their remarks, and to include extraneous matter, on H.R. 4297, the bill just under consideration.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from Louisiana?

There was no objection.

NAVIGATION DEVELOPMENT ACT

Mr. YOUNG of Missouri. Mr. Speaker, I move that the House resolve itself into the Committee of the Whole House on the State of the Union for the consideration of the bill (H.R. 8309) authorizing certain public works on rivers for navigation, and for other purposes.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from Missouri (Mr. Young).

The motion was agreed to.

The SPEAKER pro tempore. The Chair designates the gentleman from California (Mr. McFALL) as Chairman of the Committee of the Whole and requests the gentleman from Indiana (Mr. SHARP) to assume the chair temporarily.

IN THE COMMITTEE OF THE WHOLE

Accordingly the House resolved itself into the Committee of the Whole House on the State of the Union for the consideration of the bill H.R. 8309, with Mr. SHARP (Chairman pro tempore) in the chair.

The Clerk read the title of the bill.

By unanimous consent, the first reading of the bill was dispensed with.

The CHAIRMAN pro tempore. Under the rule, the gentleman from Texas (Mr. ROBERTS) will be recognized for 30 minutes, the gentleman from Minnesota (Mr.

HAGEDORN) will be recognized for 30 minutes, the gentleman from Oregon (Mr. ULLMAN) will be recognized for 30 minutes, and the gentleman from New York (Mr. CONABLE) will be recognized for 30 minutes.

The Chair now recognizes the gentleman from Missouri (Mr. Young).

Mr. YOUNG of Missouri. Mr. Chairman, I yield myself 6 minutes.

Mr. Chairman, I would like to express my full support for the Navigation Development Act as reported by the Public Works and Ways and Means Committees.

This legislation would authorize a project that is vital to the St. Louis area, the Midwest, the mid-South and—in the long run—the entire United States. That project is the long needed replacement of locks and dam 26 at Alton, Ill.

Since it was proposed several years ago, this project has become the center of a storm of controversy about Federal subsidies to transportation, the river and wetland environment and the question of whether or not to impose waterway user charges.

But at the heart of this matter is a clear problem, with a simple solution offered by H.R. 8309: a 40-year-old locks and dam is falling apart, and it needs to be replaced.

We are speaking of two locks that were designed in the 1930's for small packet boats—not the large barge tows that now use the Mississippi River. Because of the small size of the locks—one 600-foot and one 360-foot lock—more than 60 percent of the river tows are forced to break into sections when they go through the locks.

That has contributed to delays at lock and dam 26 that averaged 12 hours per tow in 1976, causing delay losses of more than \$5 million.

Something needs to be done about this bottleneck. There have been many proposals for rehabilitating the old locks and dam, but the fact is that—in the long run—building a new lock and dam would be safer and less expensive than repairing and expanding the old one.

A study by the U.S. Corps of Engineers showed that a satisfactory rehabilitation and enlargement of the present locks and dam would in fact cost about \$40 million more than the new facility—with many more risks involved.

I recently had a chance to visit lock and dam 26, and to see firsthand the problems that bargemen are encountering there. There are cracks in the walls of the dam, holes in the foundation, and leaks in the joints. Some of the lock walls have deflected as much as 10 inches, leaving no room for error when the locks are closed.

A 1976 Corps of Engineers report said there is a possibility that erosion of the foundation sands under the dam could cause a collapse of part of the dam, and that in turn would cause millions of dollars in damage to facilities downstream.

Let us look at another reason why a new lock and dam 26 is badly needed: the present lock and dam is a virtual bottleneck between an upriver cargo capacity of 105 million tons a year and a downstream lock with a capacity of 140 million tons a year. What can the pres-