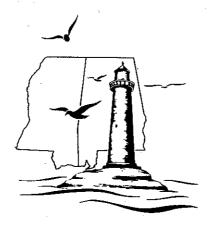
WATER LOG

A Legal Reporter of the Mississippi-Alabama Sea Grant Consortium



SPECIAL ISSUE: OCEAN DUMPING-WHAT'S AHEAD?

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WATER LOG

The WATER LOG is a quarterly publication reporting on legal issues affecting the Mississippi-Alabama coastal area. Its purpose is to increase public awareness and understanding of coastal problems and issues.

If you would like to receive future issues of the WATER LOG free of charge, please send your name and address to: Mississippi-Alabama Sea Grant Legal Program, University of Mississippi Law Center, University, MS 38677. We welcome suggestions for topics you would like to see covered in the WATER LOG.

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PREFACE

This edition of WATER LOG will be devoted to a discussion of an issue much in the news of late—ocean dumping. Articles by three prominent policy-makers representing different views and interests will be presented. U.S. Representative William J. Hughes and Marci L. Bortman describe the current federal regulatory regime governing ocean dumping and the changes brought about by the recently enacted Ocean Dumping Act of 1988. William J. Muszynski discusses the environmental health of our nation's ocean and coastal regions and the projected role of the Environmental Protection Agency in coming years. Finally, Harvey W. Schultz explains New York City's policy regarding ocean disposal of sewage sludge and argues that a total ban on such disposal is unwarranted. We hope you will find the selections contained in this edition interesting and informative.

OCEAN DUMPING: ESTABLISHING U.S. POLICY

by

U.S. Representative William J. Hughes and Marci L. Bortman

Background

In 1972, the United States Congress fashioned a national policy on the practice of dumping wastes into ocean waters. This Congressional action was in response to increasing public concern over ocean pollution and a report to the President by the Council on Environmental Quality (CEQ) entitled, "Ocean Dumping: A National Policy," which stressed the need for controls on ocean dumping. The CEQ report concluded that federal supervision was necessary for the disposal of a variety of wastes, much of which was contaminated with materials having potential adverse effects on the environment. Additionally, the report recommended a strict limitation on the ocean disposal of materials and a phase-out of ocean dumped sewage sludge, polluted dredge spoils, chemical warfare agents, explosive munitions, and industrial waste.

Congress accepted most of the report's recommendations and on October 23, 1972, enacted the Marine Protection, Research, and Sanctuaries Act, commonly referred to as the Ocean Dumping Act². The Ocean Dumping

Act's section on findings, policy, and purpose declared:

that it is the policy of the United States to regulate the dumping of all types of materials into ocean waters and to prevent or strictly limit the dumping into ocean waters of any material which would adversely affect human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities³.

The purpose of the Act is to regulate the transportation and dumping of material into ocean waters. Title I of the Act contains provisions requiring the Environmental Protection Agency (EPA) to administer a permit program, penalties, and general enforcement of the Act. Title II of the Act contains a monitoring and research program administered by the Secretary of Commerce and the Secretary of the Department in which the Coast Guard is operating, and Title III establishes a marine sanctuary program⁴.

Section 102(a) of the Ocean Dumping Act requires the Administrator of EPA to establish criteria for the issuance of ocean dumping permits. In developing such criteria, EPA must consider, among others, the following:

(A) The need for the proposed dumping.

(B) The effect of such dumping on human health and welfare, including economic, esthetic, and recreational values.

(C) The effect of such dumping on fisheries resources, plankton, fish, shellfish, wildlife, shorelines, and beaches.

(D) The effect of such dumping on marine ecosystems.
(E) The persistence and permanence of such dumping.

(F) The effect of dumping particular volumes and concentrations of such materials.

(G) Appropriate locations and methods of disposal or recycling, including land-based alternatives and the probable impact of requiring use of such

alternate locations or methods upon considerations affecting the public interest.

(H) The effect on alternate uses of oceans, such as scientific study, fishing, and other living resource exploitation, and nonliving resource exploitation.

(I) In designating recommended sites, the Administrator shall utilize wherever feasible locations beyond the edge of the Continental Shelf⁵.

The Administrator must also determine whether such dumping will unreasonably degrade or endanger human health, welfare, amenities, or the marine environment⁶. Presumably, it was the intent of the Congress to require EPA to follow such criteria and make such determinations, placing the burden of proof on the permit applicant to show that there would be no threat to human health or degradation to the marine environment. This interpretation was subsequently confirmed by an EPA ruling involving the City of Philadelphia, which was later cited in another action by a federal court7.

During the same period the United States was establishing its domestic program, it was also participating in the development of an international agreement on the regulation of ocean dumping8. The ensuing treaty, the International Convention on the Prevention of Marine Pollution by Dumping of Wastes (London Dumping Convention), is very similar to the Ocean Dumping Act. Annex I of the treaty identifies specific material prohibited from being ocean-dumped unless in trace amounts. Annex II and III list other substances that, under the auspices of a permit program, could be dumped. Congress later amended the Ocean Dumping Act in 1974 to conform

with the London Dumping Convention9.

The Environmental Protection Agency designed various sites for the ocean dumping of sewage sludge, dredge spoils, industrial effluent, and other waste principally within an area called the New York Bight. The New York Bight encompasses a region of the Atlantic Ocean equaling some 11,000 square nautical miles. It extends from Montauk Point in Long Island, New York, south to a point roughly parallel with Cape May, New Jersey and extends seaward some 100 nautical miles to the edge of the Continental Shelf10.

From 1914 to 1987, sewage sludge was dumped at the 12 mile site at the Bight's apex, which is approximately 10 nautical miles east of Sandy Hook, New Jersey. EPA had determined that ecological impacts such as the closure of shellfish beds; elevated levels of heavy metals and PCBs in the sediments; reduced catches of bony fishes; reduced dissolved oxygen levels at the bottom; alterations in the benthic community; introduction of bacterial, viral, and other human pathogens; sublethal effects in organisms; elevated incidences of fin rot and black gill; and, mutations of fish larvae were attributed entirely or in part to the sludge dumping at the 12 mile site. Consequently, the sludge dumping operations were phased-out by December 31, 1987, at this site to the 106-mile deepwater dumpsite, which is approximately 105 nautical miles from Atlantic City, New Jersey¹².

The 106-mile deepwater dumpsite had been used since 1961 for the ocean dumping of industrial wastes. In 1984, EPA redesignated the 106-mile deepwater dumpsite as two sites; one site for dumping industrial waste, and the other site for sewage sludge dumping. The E.I. du Pont de Nemours & Co., Inc., (DuPont) held two permits for dumping waste at the 106-mile deepwater dumpsite; however, after December 31, 1986, one of its permits expired and it did not pursue a permit renewal. In July, 1988, DuPont's second permit expired. DuPont reapplied for a permit and later withdrew its second permit application,...leaving one remaining chemical industry, Allied Signal Inc., dumping in ocean waters.

In October, 1973, EPA promulgated ocean dumping regulations, that set-up four categories of permits: general, special, emergency, and interim. General permits were issued for the dumping of material that was considered harmless. Special permits were issued for ocean dumping of any material that was potentially harmful, but the concentrations of toxic constituents were required to be in trace amounts. Emergency permits were issued for instances in which there were no other possible solutions and there was an unacceptable threat relating to human health. Interim permits were issued upon the showing of a plan to eventually comply with the special permit criteria or to phase-out ocean dumping¹³. Thus, an interim permit could be issued for the dumping of material that was determined to degrade the marine environment. Subsequently, New York City and New Jersey municipalities were issued interim permits.

1977 Amendment To The Ocean Dumping Act

A growing concern among environmentalists, along with reports by the media from 1973 to 1976 that marine life and water quality were becoming threatened by ocean dumping, sparked public alarm and a call to end ocean dumping. Ocean pollution events during the summer of 1976, in particular, intensified public concern. These pollution incidents included the washing up of over 1 million gallons of sewage sludge in Long Island, New York, from an explosion of two sewage storage tanks, and other frequent occurrences of sewage sludge and trash wash-ups the sources of which were unknown. Another major incident during that summer involved a massive fish kill extending from Long Island to the state of Delaware caused by oxygen depletion of the water¹⁴.

As public pressure mounted, EPA issued revised regulations in January 1977, and established December 31, 1981, as the deadline to end ocean dumping of sewage sludge considered environmentally unacceptable, i.e., that did not meet the environmental criteria. Municipal dumpers, however, were still eligible for interim permits if their sludge did not meet EPA's environmental criteria, and if

The Regional Administrator determines that the permittee has exercised his best efforts to comply with all requirements of a special permit by April 23, 1978, and has an implementation schedule adequate to allow phasing out of ocean dumping or compliance with all requirements necessary to receive a special permit by December 31, 1981, at the latest¹⁵.

The public focus on ocean pollution and on the practice of ocean dumping, combined with EPA's issuance of interim permits for the dumping of material that did not meet the environmental criteria instead of compelling municipalities to develop environmentally sound land-based alternatives, persuaded Congress to closely examine the implementation of the ocean dumping program. A number of hearings were held and legislation, H.R. 4297, was considered in the first session of the 95th Congress to reauthorize the Ocean Dumping Act.

During the Merchant Marine and Fisheries Committee consideration of H.R. 4297, I offered an amendment adopted by the Subcommittee which required EPA to end the ocean dumping of sewage sludge by December 31, 1981. The amendment also required EPA to end any sewage sludge dumping before the deadline which would unreasonably degrade the marine

environment, ecological systems, or economical potentialities¹⁶.

During Full Committee consideration of H.R. 4297, Congressman Breaux offered an amendment to delete my amendment. After lengthy discussion, I proceeded to offer a substitute to the Breaux amendment. This amendment modified my original amendment by prohibiting the dumping, after December 31, 1981, of sewage sludge that may unreasonably degrade the marine environment. In others words, this language merely codified EPA's stated goal of terminating ocean dumping of sewage sludge which may be harmful to the marine environment or to human health, welfare, and amenities. By statutorily mandating an end to harmful ocean dumping, Congress would be assured that EPA would not continue to issue interim permits for the dumping of sewage which could not meet EPA's own ocean dumping criteria. H.R. 4297 passed the House and Senate and was signed into law on November 4, 1977.

New York City was issued an interim permit that required the development of an alternative method to manage its sewage sludge by December 31, 1981. The City developed a short-term solution that involved composting the sewage sludge and landspreading it at various sites within the City. The City was also developing proposals for a long-term plan that would have included a dewatering facility and three incinerators¹⁷.

In 1979, the City requested a new interim permit extending the deadline to the late 1980's. EPA refused the City's request and in 1980 the city filed suit against EPA, contending that only ocean dumping that unreasonably degraded the marine environment is prohibited by December 31, 1981. The determination of unreasonable degradation could not be properly made, the city argued, unless the effect of such dumping at a particular site and the adverse impacts and costs of its proposed alternative were also considered along with the adverse effects of ocean dumping 18. Two New York counties and six municipal authorities in New Jersey that were dumping sewage sludge into ocean waters also filed suit shortly after New York City.

The district court granted judgment in favor of New York City. The court did not make a determination on whether the city's dumping activities unreasonably degrade the marine environment. Instead, the court held that the factors listed in section 102(a) of the Ocean Dumping Act¹⁹ require EPA to balance, on a case-by-case basis, all relevant statutory criteria, not only those factors contained in the environmental impact criteria set forth in Subpart B of 40 C.F.R. Part 227. ²⁰ The court's interpretation of these statutory factors concluded that EPA's regulations must balance the economics of ocean

dumping against land-based alternatives. The Court ordered EPA to revise its ocean dumping regulations to comply with its decision. EPA did not appeal the decision and the 12 dumpers who filed suit were allowed to continue their dumping practices.

Legislation During The 100th Congress

Once again, the spring and summer of 1986 brought a rash of pollution incidents resulting in beach closures along the coast of New Jersey. EPA was able to discover specific sources of some of the pollution events, while other wash-ups containing medical waste, wood debris, sewage sludge, and trash had no known source. A total of 14 beach closures occurred along New Jersey's coast from May 1987 to August 1987²¹. New Jersey's coastal communities,

which depend on a thriving tourism industry, suffered greatly.

During the same period that these pollution incidents were occurring, reports of dead and dying dolphins washing up along the Jersey Shore were beginning to surface. The first deaths were documented along the coast of New Jersey in July, and by September, an estimated 250 dead dolphins had washed up on the New Jersey coast. Initially, the public and some environmentalists speculated that the marine pollution problems and the dolphin deaths were related. The local communities, businesses, fishermen, environmental groups, and others within the State of New Jersey and in neighboring states whose residents normally vacation in New Jersey began to voice their concerns over these problems. With their attention turned towards the ocean, they also began to focus on one specific source of marine pollution—ocean dumping.

The public wanted an end to ocean dumping. Although sewage sludge was being dumped farther from the shore at the 106-mile deepwater dumpsite, there were still concerns by the public and the legislators over its potential impact on marine biota and water quality. Neither EPA nor NOAA were able to offer adequate assurances that these dumping activities did not degrade the marine environment. The burden of proof that ocean dumping was not harming the marine ecosystem was no longer placed on the dumpers, as originally intended under the Ocean Dumping Act. In the wake of the degradation that had occurred at the 12 mile site and the concerns over existing scientific uncertainties, I was, again, compelled to revise the ocean dumping

program.

Accordingly, I joined with Congressman Saxton in introducing legislation, H.R. 4075, which mandated an end to ocean dumping of all sewage sludge by December 31, 1991. This legislation was later modified, encompassing provisions developed by Congresswoman Schneider of Rhode Island in another bill, H.R. 3938. The revised bill, H.R. 4338, was used as the legislative vehicle. As part of the compromise with Congresswoman Schneider, H.R. 4338 contained a 1992 deadline to end ocean dumping of all sewage sludge.

From February, 1988 to August, 1988, the Merchant Marine and Fisheries Committee held hearings on H.R. 4338 and on general ocean pollution issues. While this legislation was being considered in committee, a new series of waste wash-ups were occurring, with beach closures taking place on Long Island, New York City (Staten Island, Brooklyn, and Queens), New Jersey,

and Massachusetts²². Again, some of the pollution episodes had a known source, while other sources of wash-ups that contained medical debris were unknown. These latest incidents were beginning to receive national attention, and the Congress intensified its efforts in considering a number of bills that addressed ocean pollution, including H.R. 4338.

During committee coordination of H.R. 4338, a number of perfecting amendments were adopted. One such amendment required the dumping of industrial waste to end by December 31, 1992. Allied Signal Inc., the only remaining industry compared with over 300 industries dumping in 1973, has continued dumping chemical waste into the ocean, at a site approximately

15 nautical miles east of Long Branch, New Jersey.

H.R. 4338, as amended by the Merchant Marine Committee, was sequentially referred to the Committee on Public Works and Transportation. The Public Works Committee amended the legislation further, and favorably reported the bill. I, along with other members of Congress, had concerns over some of the amendments adopted by the Public Works Committee. A final agreement was hammered out (H.R. 5430), and passed by the House of Representatives on October 3, 1988, by a vote of 417-0. The Senate passed similar legislation and the two bodies developed a single version, S. 2030, the Ocean Dumping Ban Act of 1988, which passed October 21, 1988.

The House-Senate compromise maintained the framework of the House bill; however, the conference managers agreed to accept the Senate deadline provision of December 31, 1991, for ending ocean dumping. The conference agreement adopted the House strategy to impose an escalating per-dry-ton (or equivalent) dumping fee. This funding mechanism for the dumpers was considered necessary to assure that enough resources would be set aside for the research, development, and implementation of environmentally sound alternatives to ocean dumping. In addition, this fee will increase the overall cost of ocean dumping, thus, making it comparable economically to other forms of waste management.

Specifically, the legislation will impose escalating dumping fees beginning at \$100 per-dry-ton (or equivalent) of sewage sludge and industrial waste dumped in calendar year 1989, increasing to \$150 in calendar year 1990, and \$200 in calendar year 1991. A \$15 per dry ton (or equivalent) portion of these fees will be earmarked for agency activities associated with ocean dumping. Eighty-five percent of the total amount a dumper is required to pay in fees will be placed into a trust account for use by the dumpers in researching, developing, and implementing alternatives. Those dumpers that EPA has determined will absolutely end its ocean dumping practices by the deadline will be allowed to waive all but the \$15 permit fee imposed for agency activities.

The conference managers also agreed that it was important to have the states of New Jersey and New York participate in the process to terminate ocean dumping, since the states will have the responsibility of issuing permits for alternatives that will be developed. New York and New Jersey will participate in the negotiation and monitoring of enforcement and compliance agreements that the dumpers must enter into, which contain plans to end ocean dumping. The states are also required to assist the dumpers by

allocating, for two years, ten percent of the capitalization grant payments given to them for revolving loan funds and ten percent of the associated state matching funds provided under the Federal Water Pollution Control Act²³. Furthermore, the states are required to develop a Clean Oceans Fund for a portion of the remaining fees and penalties collected from the dumpers for aiding in the development of alternatives.

The conference agreement will also establish civil penalties for the dumpers who keep on dumping beyond December 31, 1991. The penalties will escalate each year, and a portion of these penalties will be placed into the trust accounts for use in developing alternatives. As the penalties increase

each year, the amount deposited into the accounts will decrease.

In addition, the legislation contains provisions that will regulate garbage barge operations and will increase the penalties for the dumping of medical waste in marine waters. The agreement also will require EPA and NOAA to administer a monitoring program and will add four estuaries to the priority list for consideration in the National Estuary Program.

This latest enactment of ocean dumping legislation signifies Congress' reaffirmation that degradation of ocean waters should be prevented. The 101st Congress will likely see continued efforts to address all of the issues related to ocean pollution, including oversight of the ocean dumping program and the development of new legislation designed to protect our estuaries, coastal and ocean waters.

Representative William J. Hughes (D-NJ) has served in Congress for fourteen years. As a member of the House Merchant Marine and Fisheries Committee, he has been actively involved in ocean and coastal matters for over a decade. Marci L. Bortman is a former Sea Grant Fellow now serving on Representative Hughes' staff as a legislative assistant in charge of environmental and ocean related issues. The views expressed herein are those of the authors and do not necessarily represent the opinions of the editors or the Mississippi-Alabama Sea Grant Consortium.

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NAVIGATING TODAY'S OCEAN POLLUTION PROBLEMS

William J. Muszynski, P.E. Acting Regional Administrator EPA Region 2

Alfred North Whitehead once wrote that "The aim of science is to seek the simplest explanations of complex facts. We are [therefore] apt to fall into the error of thinking that the facts are simple." This adage can be easily applied to the environmental field as well, where in our desire for swift, strong action, we too often make the mistake of oversimplifying complex facts that can require exhaustive and complex solutions.

The past two summers' washups of garbage and medical wastes on New York and New Jersey beaches have brought the issue of ocean water quality to the forefront in the media, in the public eye, and in the Congress. The washups have been taken as indicators that our oceans are unattended, everdegrading open sewers. The general consensus is that things have never been

so bad.

Apart from being untrue, this is an over-simplification of the kind that can obstruct, rather than spur on, concerted, intelligent action on difficult, far-reaching problems. The very complexity and diversity of both the stresses on the ocean and the etiology of those stresses insists that we establish a careful, detailed understanding of where we are and where it is we have to go.

Ever since the disastrous state of our environment was brought to the public attention in the late '60s and early '70s, we have looked upon the pre-chemical, pre-industrial eras as if the people who lived in them wandered around their ancient cities in pristine, pollution-free nirvanas. The truth is that the industrial and chemical revolutions may have violently exacerbated, but they by no means created, public sanitation, health, and environmental problems.

In 1748, New York City wellwater was so fouled by raw sewage that people couldn't get their horses to drink it. In 1910, New York City alone was discharging over 600 million gallons of raw, untreated sewage into the harbor every day. All along the Atlantic coastline, New York and New Jersey communities discharged vast quantities of raw sewage, and frequently disposed

of garbage, directly into the ocean.

In 1910, the Metropolitan Sewage Commission of New York issued a report on all the waters, inland and coastal in the greater New York/New Jersey Metropolitan Area, which stated that:

Practically all the waters within 15 miles of Manhattan Island are decidedly polluted, as determined by inspections and chemical, bacterial and microscopical analysis. . . The waters in many of the smaller rivers and inner tributaries of the harbor are now so heavily charged with sewage that the waters in many of these places is black, and effervesce with foul gasses. . . . Gowanus Canal and Newtown Creek and the Passaic Rivers are polluted beyond the limits of toleration. The Harlem River, particularly at its southern

end, is, at times, little else than an open sewer. . . . All these sewers discharge into the tidal water. . . . No attempt is made to purify the sewage.

The same report discussed in great detail, beach by beach, the outrageous garbage washups—not of the summer of 1988, but of the summer of 1906.

Inspections of the sea in all directions to a distance of about 35 miles from the narrows showed the presence of fields of many acres of garbage. . . . Of that portion of the garbage which was carried to shore, the most offensive elements were dead and decomposing animals, such as dogs, cats, rats, and fowls. . . . An immense quantity of garbage has come ashore. . . .

The report goes on to talk about the adverse impacts of water pollution on shellfish. It presents statistics on the spread of typhoid from eating contaminated oysters, and discusses gastroenteritis, cholera, and other waterborne diseases. But the point is clear enough: pollution is not new.

It was not until sixteen years ago that, with the passage of the Federal Water Pollution Control Act of 1972, this nation launched an ambitious effort to really clean up and restore the country's waters—waters that had been neglected and abused for over 200 years. Since 1972, EPA-Region 2, working in partnership with New York and New Jersey, has obligated more than \$7.4 billion to assist local communities in these states in the construction of publicly owned treatment works (POTWs).

Today all New Jersey municipal wastewater treatment plants discharging directly into the Atlantic Ocean are at secondary treatment. We have essentially eliminated discharge of raw sewage into the Hudson River during dry weather periods. By 1990, we expect to have reduced the biological oxygen demand from municipal discharges into the waters of the New York harbor to less than 75 percent of that being discharged in 1981.

The result of this and similar gains is that water quality has, overall, undergone dramatic improvements since the passage of the 1972 Clean Water Act. We have, for the most part, controlled point sources of pollution.

At the same time, we have become more aware of the potential effects of toxics and other chemicals that threaten the aquatic biota, the fish, and our ability to use our ocean resources safely. Our science, both in the areas of health and the environment, has progressed to the point where we are now able to measure pollution in our waters and in fish to the parts per quadrillion level. We are also more sophisticated in what and when we measure; we are more aware now than ever before of potential health threats. As a result, we have a much better scientific foundation on which to stand when we make decisions about beach closings or restrictions on fishing.

So the question remains: If we have spent so many billions to control discharges, and we have built such a large number of facilities, where are the threats to our beaches and marine uses still coming from? There are several obvious, yet unequal, stresses on our ocean. They are:

-Ocean dumping of municipal sludge and industrial wastes.

- -Discharges from our municipal/industrial wastewater treatment plants.
- -Floatables from land and marine sources.
- -Combined sewer overflow and stormwater runoff.
- -Growth

Let's look briefly at each of these:

Ocean dumping

Congress recently approved and the President has signed legislation to ban the ocean dumping of sludge after December 31, 1991, to impose special fees for ocean disposal of sludge during a three year phase-out period, and to establish a schedule of escalating fees and fines for municipal authorities that continue dumping after the deadline. This means that we will finally be able to eliminate the nine remaining publicly owned users of the 106-mile sludge dump site. The bill also bans the dumping of industrial waste into the ocean. Allied Signal of Morris County, N.J., the only company currently dumping industrial wastes into the ocean under the Marine Protection, Research and Sanctuaries Act, has agreed to stop the practice before the 1991 deadline. The bill will, therefore, eliminate some eight million wet tons of sewage sludge and tens of thousands of wet tons of industrial sludge per year.

The only questions that remain are: how quickly can the municipalities implement alternatives to eliminate ocean dumping and what barriers will they come up against as they try to locate these facilities. These are questions that will be answered as we negotiate permits and compliance/enforcement agreements with the dumpers over the 270 days provided by the Congress.

Discharges from our municipal/industrial wastewater treatment plants.

Despite the progress that has been made in controlling the discharges from municipal and industrial wastewater treatment plants into the ocean, there is more that needs to be done. Even with secondary treatment, the discharges from the municipal plants still account for hundreds of thousands of pounds per day of nutrient loading. This fact, coupled with malfunctions, breakdowns, and improper operation or maintenance of the plants, necessitates the inclusion of treated discharges on the list of ocean stresses. As we complete our studies, it seems clear that we will have to place additional restrictions on direct discharges into these waters. Direct industrial dischargers and indirect industrial dischargers to municipal plants will also face a continuing tightening of restrictions on their discharge of chemicals and metals as more rigid water quality standards are developed that are based on aquatic effects, chemical-by-chemical restrictions and bioassay limitations.

Floatables

The outrageous appearance of medical waste on our beaches this summer robbed citizens of their right to enjoy the ocean without fear; and it has also robbed those who depend on the oceans for their livelihood. However, frightening as the wastes are, exposure to infectious wastes resulting in the transmission of disease is far more likely to occur in the occupational settings that generate, transport, store, treat, or dispose of those wastes than it is from beach debris. Nevertheless, the fear and disgust that the medical waste

washups instill in the public are cause enough to make sure that strong regulatory controls are in place governing the handling and disposal of these materials.

To achieve this end, EPA-Region 2 has been facilitating meetings between New York and New Jersey and, as a result, on August 10, 1988, both states adopted emergency legislation to implement a tracking system. To ensure coordination within the EPA, a medical waste task force was established. Most recently, on November 2, 1988, federal legislation was adopted to establish medical waste tracking systems for New York, New Jersey, Connecticut and states contiguous to the Great Lakes.

Despite this, it is acknowledged that the umbrella provided by even the national medical waste management system will not by itself prevent the recent beach washup incidents from reoccurring. There is also a strong need for an extensive educational program focused on small quantity

generators, such as medical practitioners and household users.

It must be emphasized that medical waste, distressing as it is, is really only one small symptom of the much larger general problem of water-borne solid waste, or floatables. Moreover, just as the floatables problem is only one of many diverse stresses placed on the ocean, the floatables problem itself arises from several practices: illegal dumping, improper waste handling by municipalities, discharges from maritime vessels, rotting piers and other waterside structures, beach litter, and, probably one of the more significant contributors to the floatables problem—The Combined Sewer Overflow, or CSO.

Combined Sewer Overflow and Stormwater Runoff

Because most older municipalities in this metropolitan area have combined storm and sanitary sewers, and there is less than adequate treatment capacity for both storm and sanitary wastes, when it rains, the street refuse which has found its way into the storm sewers gets discharged along with raw or inadequately treated sewage. Consequently, in addition to their contribution to the floatables problem, CSOs have a major short term bacterial, nutrient, and toxic impact on our marine environment.

EPA has recently developed a draft permitting strategy for CSOs, which is currently under review. The strategy calls for the region and states to identify the communities with combined sewer systems, to locate each particular CSO discharge point within these communities, and to establish individual state

permitting strategies.

Growth

Although the treatment or control of CSOs alone would drastically improve the floatables problem, it would not resolve water quality problems in our bays and oceans. This is because the root cause of much of the stress on the marine environment is the growth of population along the coasts. A huge flux of pollutants drains into the shallow coastal waters and estuaries: debris from city streets, industrial pollutants, and pesticide and fertilizer runoff from farms.

The crush of unrestricted development resulting from population growth

is another major cause of our continuing water pollution problem, and no decisions can be made without taking this into account. If development goes unrestricted, we will be forever playing catch-up ball and these problems will simply never disappear. It cannot be repeated too often: environmental and development issues can never be separated; they are one and the same.

This leads us at last to the question of future action. Public opinion surveys indicate clearly that most Americans broadly support environmental protection, and are willing to pay for it. EPA estimates that more than \$70 billion is spent each year in the United States to reduce pollution. But these costs are generally hidden from the public as increments in the overall prices

of products and services.

However, as we impose greater restrictions in the future, these costs will become more visible and the public will feel them more directly. This is because, in addition to dollars, they will include the costs of inconvenience, lifestyle changes, siting facilities, and lost opportunity. As we move closer to the individual citizen in pollution control, our willingness to pay for environmental protection will truly be tested. We will have to choose, for example, between the convenience of new shopping malls and the luxury of waterfront homes on the one hand, versus wetland protection and the enhancement of coastal resources on the other.

As we choose new and stricter requirements for filtration and monitoring of our drinking water systems, and ever-more advanced treatment of wastewater from our homes, we must also be ready to accept substantially higher costs for local water and sewer services. As we choose to impose greater restrictions on the disposal of household and solid wastes, we must be willing to accept both higher costs for disposal and greater inconvenience in the form of mandatory recycling and source separation at the curbside.

Naturalist author Rachel Carson wrote, "Like the resource it seeks to protect. . . conservation must be dynamic, changing as conditions change, seeking always to become more effective." While the topic at hand is water

pollution control, the sentiment is exactly the same.

As a society we must look at alternate ways to handle our wastes. New Jersey's Department of Environmental Protection is making a big push for recycling; and EPA has recently announced its five year goal of a twenty-five percent national recycling rate. We should also be looking at waste reduction techniques, such as a waste exchange program based on European models, to name just one example.

What specific direction should we take in terms of practicable, available measures that can be applied to protecting our waters? In the analyses of the impacts of various pollutants in any given media, we have historically focused on human health risks. We don't usually focus strictly on environmental risks. We try to measure pollutants by death or cancer rates of test animals; and we do it pollutant by pollutant. We are just beginning to conduct synergistic studies.

That is why at this very moment we are in the process of accumulating a solid body of information on the overall situation in our harbors, our estuaries, and our oceans. Under the authority and initiatives provided by

Congress, EPA is involved in several comprehensive management programs to restore the water quality and protect the living resources of the waters in and adjacent to the New York Bight. These include three "Management Conferences," designated by EPA's Administrator, Lee Thomas, under the National Estuary Program. Among the inter-related studies are the Long Island Sound Study, the New York/New Jersey Harbor Estuary Study, the Delaware Estuary Program, and the New York Bight Restoration Plan.

This does not mean that action must halt while the stresses on our waters are identified and catalogued. While we conduct our studies, we need to

take the following steps:

—Design and implement an effective strategy for complying with the recently enacted laws to control medical waste and to ban ocean dumping by 1991.

—The need to impose greater protection in the form of additional treatment capacity/redundancy must be considered for sewage treatment plants affecting our beaches, if we are to avoid summertime beach closings.

-Institute CSO and stormwater controls.

-Implement waste reduction and alterations to current packaging practices.

Finally, we must address the issue of unrestricted growth, especially adjacent to our oceans and estuarine areas. We are at the point where we should decide whether or not development in these areas should stop until we've answered the questions relating to the environment. We have already seen the results of allowing growth to continue without addressing environmental stresses, simply hoping that technology will solve the problems it creates.

Whether or not we choose to do these things is not purely in the hands of the regulators. These kinds of decisions must be translated into actions by elected officials at all levels of government, the business community, our environmental organizations, and the public at large.

The last question is, of course: Can we reach these decisions quickly enough? As Neville Chamberlain discovered, failure to act is a decision in

and of itself.

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SLUDGE AND THE "NOT IN MY OCEAN" SYNDROME

by Harvey W. Schultz Commissioner, New York City Department of Environmental Protection

The word "sludge" has been used frequently and incorrectly to describe any slick of trash, oil, medical debris, raw sewage or other pollutant in the sea.

No one defends dumping these wastes in the ocean. No one claims it is harmless to do so. Yet it seems to happen almost continuously, either illegally, accidentally, through the absence of regulation or lack of adequate sewer systems and sewage treatment.

The word "sludge" also refers specifically to sewage sludge, which is a byproduct of the sewage treatment process. Current federal law and EPA regulations permit the ocean disposal of sewage sludge under controlled conditions. Environmental scientists support this practice as a safe alternative

to land disposal or incineration.

Most cities have never attempted the complex, expensive process of obtaining federal permission to use an ocean disposal site for sewage sludge. Most cities are located too far inland to even consider ocean disposal, and most coastal cities are located too far from the only designated site, the Deepwater Municipal Sludge Dump Site in the Atlantic Ocean, commonly known as the 106-Mile Site. Most cities have ready access to sites for incineration or land application. For most cities, land disposal is far cheaper and easier than ocean disposal.

New York City has always been short of land for sludge disposal. From 1938 to 1987 New York disposed of sewage sludge at the federally approved 12-Mile Site in the New York Bight, within sight of the shores of New Jersey. Fifty years of experience and research have never supported any allegations

that sewage sludge can foul a beach or destroy marine life.

Sewage sludge is similar to other types of sludge in name only. Sewage sludge contains no garbage or trash of any kind. New York City's sludge barges do not dispose of garbage in the ocean. All the city's garbage is sent to landfills, recycled or incinerated. All trash in raw sewage, even the smallest pieces, is

removed at the treatment plants and sent to a landfill.

Our sewage sludge has been labeled "toxic" by at least one publicity—conscious environmental group. This charge is unfounded. Any substance, no matter how benign—even milk—can harm an ecosystem if disposed of improperly. Our sludge disposal operation has never been proven unsafe. Municipal sewage sludge is primarily a conventional, organic type of waste and not an industrial waste. Untreated sewage is 99.99% water, and industry accounts for only 5% of the volume of untreated sewage in New York City, far below the national average. The quality of our sludge reflects that fact. New York City recently won the authority to enforce federal regulations which require certain industries to remove heavy metal from their discharges into city sewers, and this program has already resulted in a measurable improvement in the quality of our sludge.

Rigorous testing has firmly established the physical and chemical

properties of our sludge and its behavior in seawater. Sewage sludge cannot float on the surface, it does not sink to the bottom, it cannot form lumps, it never washes up on a beach. When discharged into seawater it quickly and completely disperses. It becomes invisible to the naked eye and its presence cannot be detected by laboratory analysis.

Sewage sludge is 97% water. The remaining 3% consists of microscopic solids in suspension. Traces of heavy metals are present in sludge, but stringent toxicity tests show that diluted sludge will not harm marine life. As an additional precaution, EPA located the 106-Mile Site far from any fishing areas. The site has a naturally low aquatic population and it is not a unique

habitat for any species.

Current research disproves the widely circulated claim that the old 12-Mile Site was rendered devoid of life by sludge disposal. There is no "sludge" at the bottom, only sand. The waters surrounding and flowing through the 12-Mile Site are subjected to pollutants from many sources, yet marine scientists have found more, not less, life in areas that received our diluted sewage sludge.

As far as could be determined in the laboratory and from past experience at the 12-Mile Site, sludge disposal at the 106-Mile Site would have neither short-term nor long-term harmful effects on the environment. All available research shows that New York's sewage sludge can be—and has been—safely disposed in the ocean. No group has raised any informed claims to the contrary.

Those opposed to the ocean disposal of sewage sludge frequently and falsely identify sewage sludge with untreated discharges directly from sewers, with garbage or with other floatable wastes that enter the water from sewer overflows or illegal dumping of polluting beaches. Given the proven characteristics or sewage sludge such allegations are untrue. When some politicans, environmental groups and others claim that "sludge" is the cause of beach pollution they are using the word generically. The specific solution they pursue—an end to the ocean disposal of sewage sludge—cannot and will not help stop the pollution of our beaches.

Some opponents of ocean disposal acknowledge that sewage sludge has not been proven harmful, yet they still claim that the risk of future harm is unacceptable. They argue that the ocean is a special type of environment because the dispersion of wastes in water cannot be controlled. However, under that argument no method of sludge disposal is acceptable, particularly not composting or incineration, unless one is prepared to argue that the earth and the air are not as special as the ocean. After land application, wastes will disperse into the soil, groundwater and vegetation. Incineration leaves ash to be disposed of on land, and emissions from incinerators will disperse into the air and ultimately onto the land and water.

The vocal claims of the sport and commercial fishing industries have become an essential and highly visible feature of the opposition to ocean disposal. One spokesperson, who is a lobsterman and not a scientist or researcher, has received extensive national media coverage by asserting that New York's sludge is responsible for a purported decline in lobster catches. The experts have been given virtually no meaningful opportunity to respond

and the accusation has been reiterated by others opposed to ocean disposal as if it was a proven fact, even though the fishing industry offers no research linking use of the 106-Mile Site to the destruction of any marine life.

It is true that a colorful fisherman in a boat makes a better television interview than a scientist behind a desk. But sound environmental policies cannot be devised around the media's attraction to picturesque, simple, emotional stories.

A halt to the ocean disposal of sewage sludge has been touted as the panacea for every ill suffered by our beaches and coastal waters. In truth it will solve nothing. If the ocean disposal of sewage sludge had stopped ten years ago, the beaches of New Jersey would still be washed by coliform bacteria and the shores of New York and New Jersey still littered with medical waste and other garbage today. The disposal of sewage sludge at the 106-Mile Site contributed nothing to these problems and the closing of the 106-Mile Site will not cure them.

It's easy, and politically expedient, to use generic slogans like "stop ocean dumping." They look good on banners for photographers and television. But it is misleading and useless to propose expensive solutions that cannot address the genuine concerns of environmental groups, government agencies charged with protecting the environment, elected officials and the general public. The disposal of sewage sludge at the 106-Mile Site is one blameless piece of a large and ugly puzzle. The known, significant causes of coastal water pollution and the loss of marine life demand costly, resource-consuming remedies and involve potentially unpopular political choices. Shoreline development destroys irreplaceable coastal environments. Runoff from agricultural and industrial areas contributes pesticides and other wastes to our waterways. Old sewer systems need costly renovations to stop overflows during rainstorms and treatment plants need improvement. Illegal dumping rises as legal disposal becomes more expensive. Sport and commercial fishermen who break the rules jeopardize future generations of marine life.

New York City has been accused of doing nothing to clean up the marine environment. Nothing could be farther from the truth. Since 1973 New York has spent \$2.5 billion to stop 450 million gallons of sewage that used to flow untreated into the New York Harbor every day, and to upgrade the city's treatment plants. Today the New York Harbor is richer in dissolved oxygen and more free of bacteria than at any time since the turn of the century. Over the next ten years New York will spend close to \$2 billion to stop millions more gallons per day in sewer overflows during rain storms.

New York City will halt the ocean disposal of sewage sludge as soon as a reliable land-based alternative can be arranged. Mayor Koch pledged the city's best efforts toward that end this past summer, and new federal legislation requiring it was signed into law this fall.

The change from ocean disposal to other methods will not cleanse our beaches and coastal waters. Nevertheless, New York City will devote hundreds of millions of dollars, which could be dedicated to more beneficial programs, to designing and implementing an alternative method of sludge disposal. In a few years our sewage sludge will be out of the ocean, out of the "backyard"

of fishermen and boaters. It will be removed from the backyard of coastal states where the mere perception of danger, no matter how unfounded, allegedly hurts tourist and matine industries.

New York's sewage sludge will go onto the land, most of it somewhere outside the city, as compost and landfill, or it will eventually be incinerated. It will not vanish. It will just be moved from one backyard to another.

Harvey W. Schultz is Commissioner of New York City's Department of Environmental Protection. He is responsible for the management of the New York City water supply system, sewer system, water pollution control regulations, air quality and noise regulations. The views expressed by Mr. Schultz are his own and do not necessarily reflect the opinions of the editors or the Mississippi-Alabama Sea Grant Consortium.

MEDICAL WASTES DISPOSAL IN ALABAMA

Introduction

News reports of the summer of 1988 brought vividly to the public's attention the ever - growing problem which plagues the waters of our nation - using the sea as a dumping place for anything from raw sewage to syringes to vials of contaminated blood. In response to the growing public concern with regard to medical wastes disposal, a number of states are examining various regulatory methods of reducing the problem within their borders. Alabama has recently addressed the issue by appointing a subcommittee to assess the extent of the problem and to recommend whether a new regulatory scheme should be enacted by the state.

Alabama's Current Laws on Infectious Waste Disposal

Presently, Alabama has no specific statutory scheme which regulates the disposal of infectious wastes. Under Alabama law, infectious waste falls within the statutory definition of hazardous waste, therefore, disposal is governed by the "Hazardous Wastes Management and Minimization Act." Ala. Code § 22-30-3 (Supp. 1988). Section 22-30-2 defines the purpose and intent of the law as to minimize and control the hazardous conditions which may pose a threat to human health or the environment in the absence of adequate safeguards in the "generation, treatment, transportation, storage and disposal of these wastes." Ala. Code § 22-30-2 (Supp. 1988). The law defines "hazardous waste" as "a solid waste, or combination of solid wastes, which, because of its quantity, concentration or physical, chemical or infectious characteristics may:

A. Cause, or significantly contribute to, an increase in serious irreversible

or incapacitating reversible, illness; or

B. Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of, or otherwise managed." Ala. Code § 22-30-3 (Supp. 1988).

Medical wastes are classified as solid wastes and, therefore, do not fall within those sources of pollution subject to permits under the Water Pollution Control Act

The agency with exclusive regulatory authority of the statewide management of hazardous wastes including infectious wastes, is the Department of Environmental Management. Personnel of the Department are responsible for monitoring landfill and disposal programs at all commercial sites for the disposal of hazardous wastes. Other responsibilities of personnel include, but are not limited to, monitoring the following: transportation near the site, the unloading of wastes, waste disposal, waste storage, on-site and off-site areas of known or suspected contamination. Ala. Code § 22-30-4 (Supp. 1988).

The Alabama Department of Environmental Management is also empowered with the authority to promulgate rules and regulations pertaining to hazardous waste generation, treatment, storage, transportation or disposal within the state. The statute authorizes the Department to establish a permit program for hazardous waste management practices. Unless exempted by the regulatory statutes or by rules promulgated under the authority of the statutes, a person must obtain a permit to engage in transportation, disposal, treatment or storage of hazardous waste. Ala. Code § 22-30-12 (Supp. 1988).

The Administrative Code of the Alabama Department of Environmental Management defines infectious wastes as including the following: surgical wastes such as soiled dressings, disposable gowns, and surgical gloves; pathological wastes (such as human tissues and anatomical parts); biological waste (such as blood and blood products); isolation waste (that which emanates from the care or treatment of a patient in isolation); solid and liquid wastes from renal dialysis; cultures and stocks of etiologic agents and associated biologicals (such as discarded live and attenuated vaccines); all laboratory waste which has come into contact with pathogenic organism; animal carcasses which have been exposed to pathogenic organisms in research; sharps (discarded articles which may cause punctures or cuts, such as needles or blades); and chemotherapy waste. Alabama Department of Environment Management Administrative Code, Article 13-4-26.

The regulations require that infectious waste be rendered non-infectious at the point of origin or at an alternative place if equipment exists or is within a reasonable distance of the point of origin, prior to delivery to the disposal site. A variance may be granted by the Department if the generator, processor, or business cannot reasonably comply with the requirements. One factor considered by the Department in determining whether to grant a variance is the selection of packaging containers appropriate for the type of waste: plastic bags for certain solid or semi-solid wastes; puncture resistant containers for sharps (such as needles or blades); and tanks, flasks or bottles for liquids.

The containers must maintain their integrity during handling at the disposal facility. The containers must be red and conspicuously labeled with language determined by the Department. The labels must be legible from a distance of 25 feet during daylight hours.

Prior approval must be received by the permittee from the Department

before the delivery to the proposed disposal facility. The administrative regulations also specify the requirements for burial of wastes at designated

or clearly marked places.

The disposal requirements differ for wastes which have been rendered non-infectious by such methods as steam sterilization or incineration. The waste must be disposed of in an approved facility. Written certification is required which indicates the waste has been rendered non-infectious and a copy of the certification must be provided by the person delivering the waste to the facility from the person who rendered the waste non-infectious. Records are required to be kept at the disposal facilities on those persons providing the certifications and are subject to the Department's review. Packaging and handling only requires, unless otherwise approved, that the waste arrive at the facility in containers that would prevent spillage during the transportation process. Alabama Department of Environmental Management, Administrative Code, Rule 13-4-26.

Section 22-30-19 of the Alabama Code establishes the penalties for violation of the statute, rule, regulation, or permit. The Department may issue an order requiring immediate compliance with a regulation or law. Where there exists an immediate threat to human health or to the environment, the Department may suspend operations until action is taken to correct the violations. For certain violations specifically set forth in § 22-30-19 which are done knowingly, intentionally, recklessly, or with criminal negligence, penalties exist of imprisonment for not more than ten years or less than one year and one day and fines of not more than \$50,000 for each violation. The penalty is increased after the first conviction. Ala. Code §

22-30-19 (Supp. 1988).

Alabama's Subcommittee on Infectious Waste Disposal

In September, 1988, a subcommittee was established by the Alabama Attorney General from a task force dealing with the problems of solid waste disposal in Alabama. The purpose of the subcommittee is to establish a definition for infectious wastes, to determine if there is a problem with infectious waste disposal, and, if so, the extent of the problem and whether new regulations are necessary. The subcommittee sent a survey to various health care providers, including hospitals, veterinarians, dentists, nursing homes, and private medical offices; to gather information on the extent of the problem. The information is now being compiled and the subcommittee should make recommendations within the next few months as to the direction of Alabama in the area of disposal of infectious wastes.

Karen Luster

ZERO TOLERANCE AND THE U.S. FISHING FLEET

Introduction

The Hold Tight, a gillnet fishing boat, was seized and held for over a month during the peak of the halibut season by customs officials along the coast of Alaska earlier this year, after 1.7 grams of marijuana was found in a crewman's pocket.

The fishing boat Little Bear was seized near Alaska after one half of an ounce of marijuana was found on board. As a result, the vessel missed

most of the short fishing season with the loss of about \$250,000.

A small bag of white powder found in a shaving kit aboard a North Carolina scallop boat was partially responsible for the seizure of the vessel. Although the powder later turned out to be baking soda, the vessel's two

week impoundment cost its owners nearly \$50,000.

These are some examples of the potential effects on the U.S. fishing fleet of "zero tolerance", the recently instituted drug enforcement policy of the Reagan administration, which allows the government to seize and hold any vessel on which illegal drugs are found regardless of quantity or lack of knowledge of the owner. Zero tolerance has been decried by its detractors as an assault on the Constitution, and praised by its supporters as a clear message to drug users about the potential costs of such use.

Zero tolerance is not a new law. It is an "enforcement policy" which is aimed at attacking the national drug problem by decreasing demand. It accomplishes this by making the cost of even occasional use of drugs potentially astronomical. Fishermen have not been singled out for harsher treatment than other groups, yet the policy has created new problems for the U.S. fishing industry. The bulk of the fishing fleet operates just off the U.S. coastline, where Coast Guard and Customs officials have broad powers to stop and search vessels. This makes the fleet a prime target for stringent enforcement.

Many would agree that this is not necessarily a bad thing. Fishing boats are a favorite tool of drug smugglers. However, since possession of a small amount of drugs by a crew member can result in the seizure, and possible forfeiture, of a costly fishing boat even if the owner is completely unaware of the crew's actions, new management techniques must be found to insure that crews are completely drug free while working aboard a vessel.

Statutory Basis of the Policy

Customs officials and the Coast Guard have broad powers to stop, inspect and search vessels. U.S. registered boats may be stopped on the high seas (outside of the three mile limit) and any ship may be stopped in U.S. territorial waters for the purpose of a document check and safety inspection. Whenever a vessel enters U.S. territorial waters, Customs officials may conduct a limited search without a warrant. Tariff Act of 1930, 19 U.S.C. 31581(a)(1983).

In the course of a safety inspection, Coast Guard officers may visit and observe all public areas, including cabins if they are used for more than living quarters, and may inspect the main hold to check the serial number located on the vessel's mainbeam. They may break locks, if necessary, to enter these places. U.S. v. Crews, 605 F.Supp. 730 (S.D. Fla.) affd 800 F.2d 265 (11th Cir. 1985).

If anything is noticed on their approach to or inspection of a vessel which gives rise to an "articulable, reasonable suspicion" of illegal activities, an officer may conduct a full search. U.S. v. One (1) Defender Lobster Vessel, 606 F.Supp. 32 (S.D. Fla. 1984); See also U.S. v. Steele, 727 F.2d 580 (6th Cir. 1980).

Once drugs or other contraband are discovered, arrests and prosecutions can be made under one of several statutes, including the Tariff Act of 1930, 19 U.S.C. § 1001 et seq. (1983), the Interstate Commerce Act, 49 U.S.C. § 901 et seq. (1982), and the Comprehensive Drug Abuse Prevention and Control Act of 1970, 21 U.S.C. § 801 et seq. (1984). These three statutes all provide for the forfeiture of vehicles used to transport contraband. The Drug Abuse and Prevention Act provides for the forfeiture of "all conveyances. . .which are used or are intended for use, to transport, or in any manner to facilitate the transportation, sale, receipt, possession, or concealment of [drugs]." 21 U.S.C. § 881 (a)(4) (1984).

While the law was arguably intended to interrupt commercial drug trafficking, the courts have refused to so limit its interpretation. In U.S. v. One Chipper Bow Ketch Nisku, 548 F.2d 8 (1st Cir. 1977), the owner of the boat asked the courts to apply such an interpretation. The court stated that "the plain meaning of 'to transport' is simply to carry or convey from one place to another. The statute is silent as to the purpose for which the transportation is undertaken, and we cannot read such a limitation into the

words used." Id. at 11.

The amount of drugs involved is not relevant. "Intentional transportation or concealment of the [drug] in a vehicle, no matter how small the amount, will subject the conveyance to forfeiture." U.S. v. One 1975 Chevrolet K-5 Blazer, 495 F.Supp. 737, 740 (W.D. Mich. 1980). In U.S. v. One 1973 Dodge Van, 416 F.Supp. 43 (E.D. Mich. 1976) the court found that even a small amount of marijuana (10.3 grams) used strictly for personal consumption, would justify forfeiture. The Eleventh Circuit Court of Appeals upheld the forfeiture of a boat upon which was "2 leaves and a twig". U.S. v. One (1) 1982 International Vessel, 741 F.2d 1319, 1320 (11th Cir. 1984).

The Nature Of An "In Rem" Action And The "Innocent Owner"

A forfeiture proceeding is an *in rem* action, meaning that it is brought against the property itself under the legal fiction that the property is guilty of facilitating the crime. See *Calero-Toledo v. Pearson Yacht Leasing Co.*, 416 U.S. 663 (1974). The importance of this distinction is that a forfeiture proceeding can be carried out against a fishing boat and upheld even if the owner was found innocent of the crime, or even if he was never charged with

a drug-related offense at all.

In an *in rem* action, the government must show only "probable cause" that the boat was involved in a violation of narcotics laws in order to support its side of the case and require the vessel owner to proceed with his side. *U.S. v. One 1977 36-Foot Cigarette Ocean Pacer*, 624 F.Supp. 290 (S.D. Fla. 1985). Finding any testable amount of drugs fulfills this threshold requirement. The vessel's owner, to defeat this initial showing, must prove with a "preponderance of the evidence" that his case does not fit within the forfeiture statute. He may prove that the boat had been stolen, and must

have convincing evidence of a complete lack of complicity, knowledge or assent in the theft. In the alternative, he could present the "innocent owner" defense. To do this, the owner must prove that he was "uninvolved in and unaware of the wrongful activity, and had done all that resonably could be expected to prevent the prescribed use of the [craft]". U.S. v. One Rockwell International Commander 690 C/840, 594 F.Supp. 133, 138 (D.N.D. 1984), citing Calero-Toledo 416 U.S. at 689.

Whether or not the owner has "done all that reasonably could be expected" depends on the circumstances of each case. In the aviation industry, this included "checking of certificates and possible F.A.A. violations by operators, and the creation of policies." *Id.* at 139. In that case, however, the industry standard was found to be insufficient in light of the fact that the plane operated from an airport known for drug trafficking. This reasoning would be very important for boats operating out of locations such as south Florida.

Another factor to be recognized is the case of the owner/operator, a common situation in the fishing fleet. According to the court in *U.S. v. One* (1) 1950 Burger Yacht, 395 ESupp. 802 (S.D. Fla. 1975), it would be difficult to meet the burden of proving innocence of the owner sufficient to defeat forfeiture proceedings, where the claimant was on board the vessel when the contraband was seized. *Id.* at 803.

One Department of Justice attorney noted that if a boat owner knew of a crew member who used any drugs while off duty, then it would be reasonable to anticipate that he might bring them on board. The attorney stated that the owner would have to, at a minimum, clearly tell the user not to bring any drugs onto the boat. Using all methods that were "reasonable" might even mean firing the employee.

For a larger fishing fleet, where the owner had a number of employees which he was not able to personally supervise, "reasonable" might include a drug testing program. The Justice Department attorney also said that, in some circumstances, searching the personal effects of crew members might be necessary for doing all that is reasonable to see that drugs do not get on board the vessel.

One thing is clear. The owners of fishing boats are going to have to take concrete steps to prevent the possession of drugs aboard their vessels, or risk losing them. An official with the Forfeiture Unit of the U.S. Department of Justice recently stated that the department is still committed to seeking the forfeiture of boats on which even small quantities of drugs have been found, if the owner hasn't clearly fulfilled his burden of doing "all that could reasonably be expected" to prevent onboard drug possession.

The courts have recognized the potential harshness of these forfeiture proceedings but claim they have little discretion. U.S. v. One 1973 Dodge Van, 416 F.Supp. 43, 45 (E. D. Mich. 1976); U.S. v. One Clipper Bow Ketch Nisku, 548 F.2d 8, 12 (1st Cir. 1977). These cases note that the statutes permit the U.S. Attorney General to "remit or mitigate [the forfeiture] upon such terms and conditions as he deems reasonable and just." 19 U.S.C. § 1618 (1983); See also 21 U.S.C. § 881 (1986). "By long-standing, judge-made rule, the

Attorney General's decision is unreviewable". U.S. v. One 1973 Dodge Van, at 45.

One serious problem for fishing boat owners whose vessels have been seized is that there is sometimes a considerable delay before forfeiture proceedings are begun, or a remission decision is handed down. Like many government entities, the staff designated for handling forfeitures is rather small compared to the volume of work. (No statistics are kept on how many seizures and forfeitures have taken place under the zero tolerance policy, but the total of seizures and forfeitures for all causes can run into the hundreds monthly. The Justice Department's forfeiture staff has only nine attorneys.)

Congress has provided a remedy to the problem of delays in the newly enacted Omnibus Drug Initiative Act of 1988—a series of amendments to existing drug laws. The wide-ranging law, which provides for everything from funding for addiction and AIDS research, to giving the Coast Guard permission to fire into vessels which refuse to heave-to after a warning shot, sets up a series of administrative timetables for the processing of forfeiture actions. After the owner of a conveyance files the claim and bond required in a response to a forfeiture action under the Tariff Act of 1930, he may petition the Attorney General to regain the use of his vessel pending forfeiture. This petition must be granted or denied within twenty days, or the vessel is automatically returned to the owner, pending further proceedings.

Once the owner of a conveyance seized for a drug-related offense files his claim and bond, the Attorney General must institute forfeiture proceedings within thirty days, unless the court extends the time limit "for good cause shown or on agreement of the parties." If the Attorney General does not meet the thirty day limit or receive an extension from the court, the appropriate district court will "order the return of conveyance to the owner and the forfeiture may not take place." The legislation also provides that the owner of a conveyance seized for a drug-related cause may have the vessel promptly returned by putting up a bond equal to its value, unless the Attorney General "determines that the conveyance should be retained (1) as contraband, (2) as evidence of a violation of law, or (3) because, by reason of design or other characteristic, the conveyance is particularly suited for use in illegal activities." H.R. Rep. No. 5210, 100th Cong., 2nd Sess. 6159 (1988).

Thus an innocent owner whose vessel has not been modified in some way to facilitate drug trafficking (eg. secret compartments built into the hull) should be able to get his boat back for immediate use during the fishing season. This should go a long way towards mitigating the harshness of present seizure and forfeiture procedures.

Conclusion

The future of zero tolerance after the Reagan administration is unclear, although every indicator points to a continuation of the policy under President-elect Bush. There is certainly a statutory basis for zero tolerance, and the courts are slow to find constitutional barriers when the stakes are so high. Commercial fishermen are caught in the crossfire of the war on drugs, and will have to begin taking careful measures to insure their own survival.

Luke Fisher

KOKECHIK FISHERMAN'S ASSOCIATION V. SECRETARY OF COMMERCE, 839 F.2d 795 (D.C.Cir. 1988)

Secretary of Commerce may not issue an incidental take permit to commercial fishermen for protected marine mammals without first ascertaining whether or not the protected marine mammals are at their optimum sustainable population level.

Introduction

On February 16, 1988, the U.S. Court of Appeals of the District of Columbia affirmed a lower court's decision to grant a preliminary injuction against the Secretary of Commerce from issuing an incidental take permit to the Federation of Japan Salmon Fisheries Cooperative Association (Federation). This permit, pursuant to the Marine Mammal Protection Act of 1972 (MMPA), 16 U.S.C. §§ 1361-1407 (1982 & Supp. 1985), would have allowed the Federation to take a total of 6,039 Dall's porpoise incidental to commercial fishing for salmon in the United States' 200 mile fishery conservation zone.

Every year 129 Federation catcherboats enter the waters of the U.S. fishery conservation zone in the area of the Bering Sea and the north Pacific Ocean which surrounds the western end of the Aleutian Islands off the coast of Alaska. At dusk each night during the two months of fishing season, each catcherboat sets a nylon monofilament gillnet approximately 9.3 miles long and 26 feet deep. A total of 1,200 miles of net length is set. Although the Federation seeks only to catch salmon, the nets entangle marine mammals protected by the MMPA which include Dall's porpoise and the depleted population of northern fur seals.

The permit was greatly opposed by environmentalists, specifically the Center for Environmental Education (CEE) and by a group of Alaskan commercial fishermen, known as Kokechik Fisherman's Association (Kokechik). After Federation's permit was issued by the Secretary of Commerce, CEE and Kokechik filed petitions for review claiming that the permit violated the Marine Mammal Protection Act for the primary reason that an unauthorized taking of other protected marine mammals would occur for which no permit was issued. The District Court consolidated these cases and found that the permit violated the MMPA. It stated that permitting the Federation to gillnet fish for salmon in the U.S. conservation zone would irreparably harm the stocks of several marine mammal populations and thus a preliminary injunction was warranted against the issuance of the permit. It further found that harm to the Japanese fishermen would be purely economic and the interests of the marine mammal populations at stake outweighed the economic interests of the Federation. Upon this decision the Federation and the Secretary of Commerce appealed to the Court of Appeals for the District of Columbia.

Analysis

The MMPA was enacted by Congress to protect in waters under U.S. jurisdiction, marine mammals that are in danger of depletion or extinction. Section 1361 of the MMPA specifically states, "certain species and population

stocks of marine mammals are, or may be, in danger of extinction or depletion as a result of man's activities. . . [S]uch species and population stocks should not be permitted to diminish beyond the point at which they cease to be a significant functioning element in the ecosystem of which they are a part, and consistent with this major objective, they should not be permitted to diminish below their optimum sustainable population (OSP)."

Section 1371 of the MMPA imposes a moratorium on the "take" of all marine mammals in waters subject to the jurisdiction of the U.S., including the Bering Sea and north Pacific Ocean. Section 1362 (7) of the MMPA defines moratorium as "a complete cessation of the taking of marine mammals".

Because marine mammals may frequently be unintentionally taken, the MMPA in Section 1371(a)(2) makes a limited exception and authorizes the Secretary of Commerce to waive the moratorium and allow marine mammals to be taken incidentally in the course of commercial fishing operations. Before such a taking can occur, two statutory requirements must be met: the taking must be authorized by regulations promulgated through formal rulemaking proceedings and a permit issued by the Secretary of Commerce, and the taking must meet the requirements of the MMPA and be consistent with the primary goal of protecting marine mammals. The MMPA states in Section 1373(a) that permits may be granted if it is shown that the taking will not be to the disadvantage of the stocks involved and will be consistent with the purposes and policies of the MMPA. As the Court of Appeals explained, this means the Secretary must first determine that the requested taking will not be to the disadvantage of the affected species and population stocks and pursuant to this determination must publish statements on population levels and the expected impact of the proposed regulations on the optimum sustainable population (OSP) of the affected marine mammal species.

In July 1986 before the Federation's previous permit expired, they applied for a new permit to allow its members to take 5,500 Dall's porpoise, 450 fur seals, and 25 sea lions during each of the next five years. No requests have been made for other marine mammals likely to be taken. The Secretary of Commerce issued a permit that would allow the Federation to take a specified quota of Dall's porpoise incidental to commercial gillnet salmon fishing. No other marine mammal species was included within the permit, although it was foreseeable that other protected mammal species would be taken such as the northern fur seals, northern sea lions, harbor porpoise, and

Pacific white-side dolphins.

The Secretary of Commerce had interpreted the MMPA to allow a permit to be issued to the Federation for only one species of mammal. The permit was issued though the Secretary had knowledge that other marine mammals would certainly be taken. No required findings of optimum sustainable population were made as to these other species. In his final decision, the Secretary concluded that he could not determine if the northern fur seal at Commander Island was within the optimum sustainable population level. It was found, however, that the Pribilof Island northern fur seal population was depleted. The Secretary of Commerce justified the issuance of the permit by stating that where a neglible number of nonpermited takings would occur,

a permit will be issued even though the statutory provisions to issue a permit for those species had not been met and penalities would be imposed upon

those who are caught taking the mammals.

The Court of Appeals agreed with the District Court and strongly rejected this reasoning, finding that it was clearly contrary to the MMPA. It held that the Secretary had not made the findings as to the OSP of the northern fur seals, which is an absolute requirement for the issuance of a permit and a waiver of the MMPA. The Court asserted that the practical effect of the permit was to allow the Federation to take protected marine mammals for a price in the form of civil penalties imposed for such takings. It stated that the MMPA does not provide for a "neglible impact" exception to its permitting requirements where incidental takings are not merely a remote possibility but a certainty.

Section 1371(a)(4) creates a narrow exception for citizens of the United States who are engaged in commercial fishing for incidental, but not intentional, takings having a negligible impact on the species. The Court of Appeals stated that the Secretary of Commerce is not authorized to extend this flexibility to the Japanese. Any change in this policy by the Secretary

would require amendments by Congress.

The Court also made note of one other statutory exception to the MMPA's strict moratorium, Section 1371(a)(2) that allows for the incidential takings of marine mammals in the course of seine fishing for yellowfin tuna. Because Congress did not place similar language in the 1982 amendment of section 1034 that gave the Federation its permit for 1984-1987, the court found that it must not have intended to loosen MMPA requirements for the Federation as it did for the tuna industry.

Conclusion

The Court of Appeals concluded that the permit as it stood was contrary to the requirements of the MMPA because it allowed incidental takings of various species of protected marine mammals without first ascertaining as to each such species whether or not the population was at the OSP level. The MMPA was not intended to be a balancing act between the interests of the fishing industry and the animals. The interests of marine mammals come first and the Secretary cannot ignore the fur seal populations. If it is appropriate to grant foreign commercial fishermen some leeway to take marine mammals incidentally in carrying out their commercial fishing operations for salmon, it is for Congress, not the Secretary, to decide.

Kokechik has sent a clear message that general permits for incidental takings are not permissible in the absence of scientific information on the status of marine mammal populations and stocks. As a consequence, commercial fishermen may find it more difficult to obtain necessary permits

for the incidental capture of certain marine mammal species.

Vicci McReynolds

LAGNIAPPE (A Little Something Extra)

We would like to congratulate Laura Howorth on being selected staff attorney of the Mississippi-Alabama Sea Grant Legal Program. Laura has served as temporary staff attorney and associate editor of WATER LOG for the past six months. We are pleased that Laura will be able to continue her excellent work with our program.

In its continuing effort to develop a plan for implementing the ruling of the Mississippi Supreme Court in Cinque Bambini Partnership v. Mississippi, 491 So.2d 508 (1986), the Mississippi Secretary of State's Blue Ribbon Commission on Public Trust Tidelands has adopted an interim final report, containing specific recommendations which address the issues of boundaries, conservation and development, lease program management, littoral/riparian rights and taxation. The Commission plans to present a final report to Secretary of State Dick Molpus by the end of the year, but will first seek the public's opinion concerning the report. The WATER IOG will continue to monitor the progress of the Commission and its final recommendations.

The Europa Star, a casino cruiseship operating from the port of Biloxi (See WATER LOG Vol. 7, No. 2, April-June 1988, p. 10-12) recently moved its operations from the Mississippi Coast to the port of St. Petersburg, Florida. The vessel departed only days after its owners were informed by Circuit Judge James Thomas, that the vessel would no longer be able to operate its gambling activities within the confines of the Mississippi Sound and instead would have to sail beyond the barrier islands before opening its casino. A spokesperson for Europa Cruiseline Ltd. stated that the cruiseship would only return to Biloxi if the state legislature adopts legislation allowing the cruiseship to open its casino and serve alcoholic beverages in the Sound.

New legislation signed by President Reagan on November 7, 1988 is designed to increase the pace of new marine sanctuary site designations by the National Oceanic and Atmospheric Administration. The Marine Sanctuaries Act amendments require NOAA to designate four new sanctuaries over the next three years: Cordell Banks off northern California; Flower Garden Banks off Texas; Monterey Bay, CA; and the outer coast of western Washington. Additionally, four other sites will be studied to determine whether they should be elevated to active sanctuary candidate status: Alligator Reef, American Shoal and Sombrero Key in the Florida Keys and Santa Monica Bay, CA.