

WATER LOG



A Legal Reporter of the
Mississippi-Alabama Sea Grant Consortium

Special Issue: Rigs-to-Reefs

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And More . . .

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WATER LOG

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.

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The Development and Implementation of Louisiana's Artificial Reef Program

by
Rick Kasprzak
Charles A. Wilson
Villere Reggio

INTRODUCTION

In 1947 the oil and gas industry made a significant step towards offshore development when the first well was drilled out of sight of land. This well was in the Ship Shoal area approximately 12 miles south of Terrebonne Parish in approximately 16 feet of water. This was also the beginning of Louisiana's offshore oil and gas boom. Today there are over 4,500 oil and gas structures in the Gulf of Mexico. These structures supply approximately 25 percent of the U.S. annual production of natural gas and about 10 percent of its oil.

In addition to meeting the nation's energy needs, these structures also form one of the world's most extensive artificial reef systems. For over forty years fishermen from Louisiana and neighboring states have recognized the bountiful fishery harvests that exist beneath these structures. These platforms are so popular as fish havens that over seventy-five percent of all offshore recreational fishing trips leaving Louisiana ports are destined for one or more of these structures.

Both recreational and commercial fishermen report larger catches near platforms. Sport divers, whether spearfishing or taking pictures, find a greater variety and number of species when diving beneath these steel structures. Reports indicate that a single petroleum platform naturally harbors twenty to fifty times more fish than do the nearby soft bottom habitats of the Gulf. It has been estimated that the typical oil and gas structure in 150 feet of water provides up to two acres of hard bottom habitat. This hard bottom habitat is particularly important off Louisiana where natural reefs are scarce, and found only in waters 400 to 600 feet deep.

Unfortunately, many fishermen have gone to their favorite rig only to find it missing. Federal regulations and international treaties require platforms to be removed within one year after an oil and gas lease has been terminated. Over 470 platforms had been removed as of 1986 with an estimated 2,500 platforms expected to end their primary life as an oil and gas structure by 1996. The removal of these structures is a major expense to the oil and gas industry, a loss of vital fishery habitat for many marine species, and a loss of favorite fishing spots.

LOUISIANA ARTIFICIAL REEF INITIATIVE

In the mid-1980's several events occurred that would offer a renewed opportunity for Louisiana's "de facto" artificial reef

system. In 1984, United States Senator John Breaux authored the National Fishing Enhancement Act (NFEA) §§U.S.C. §§2101-2106. NFEA provides states with guidelines to establish well-developed, well-organized artificial reef programs. In 1985, some Louisiana citizens formed the Louisiana Artificial Reef initiative (LARI) to halt removal of offshore oil and gas structures and loss of vital reef habitat and associated fishing opportunities. LARI was a unique blend of state, federal and university representatives, members of various recreational and commercial fishing interests, and representatives of Louisiana's oil and gas industry.

Modeling state legislation after NFEA, LARI members developed the Louisiana Fishing Enhancement Act, or Act 100, to provide the authority to develop a comprehensive artificial reef program for Louisiana. Signed into law on June 25, 1986, Act 100 established the Louisiana Artificial Reef Development Program and named and outlined the duties of the three participating agencies. This program was given the responsibility of siting, maintaining, and enhancing artificial reefs in both state and federal waters off the Louisiana coast, utilizing but not limited to retired oil and gas structures.

The program is administered by the Louisiana Department of Wildlife and Fisheries. Technical support for siting and monitoring the reefs is provided by the Center for Wetland Resources' Coastal Fisheries Institute and the Louisiana Geological Survey, both located at Louisiana State University.

The Act also created the Louisiana Artificial Reef Council. The Council is composed of the Secretary of Wildlife and Fisheries, the Dean for the Center for Wetland Resources, and the Director of Louisiana Geological Survey. The Council was established to oversee development and implementation of the program as well as other program components.

The Act established the State of Louisiana as the permittee for the artificial reefs developed under the program's jurisdiction and appointed the Louisiana Department of Wildlife and Fisheries as agent for the state. The state assumes legal and managerial responsibility for the reefs upon placement within the established reef permit area.

Act 100 mandated that a plan be drafted to establish the rationale and operational guidelines for the program, including the criteria for siting artificial reefs in Louisiana's waters. The Louisiana Artificial Reef Plan was drafted during 1987 and approved by the Senate and House Natural Resources Committee in October. A lengthy process identified areas where reef development was inappropriate, such as shipping lanes, pipeline corridors, bottoms traditionally used by the commercial fishing industry, as well as existing live bottoms. After this, public hearings were held across south Louisiana to outline the program and select areas where reefs should be located. As a result of those hearings, eight artificial reef planning areas were selected where specific artificial reef projects could be sited during the first phase of the program (see figure 1). The establishment of the eight planning areas encourages oil and gas industry cooperation

because it facilitates planning for abandonment schedules of their offshore facilities.

Act 100 established the Louisiana Artificial Reef Trust Fund to finance the program because no monies were allocated from the state's general fund. Oil and gas companies are asked to donate a portion of the savings they realize through participation in the program. The donations are deposited into a legislatively protected trust fund, and the program is operated with the interest generated by that fund. It has been estimated that the oil and gas industry can save one million dollars or more per structure, depending on water depth, by converting its obsolete structures into artificial reefs, as opposed to the traditional onshore abandonment. The state's operational expenses include, but are not limited to, program administration, monitoring and research of reef sites, and buoy purchase and maintenance for the artificial reefs.

IMPLEMENTATION OF THE ARTIFICIAL REEF PROGRAM

Since the Louisiana Artificial Reef Program was approved in 1987, three artificial reef sites using the underwater support structures (platform jackets) from five obsolete petroleum platforms have been established offshore Louisiana. The first reef was created in October of 1987 when Oxy Corporation (formerly Cities Service) donated the jacket of a large eight pile structure. Since the 3,500 ton structure was already in one of the eight planning areas selected by the Council, the structure was toppled in place in 238 feet of water south of Marsh Island, Louisiana.

Chevron USA followed ten months later, toppling one of its former production platforms twenty-eight miles off the southeast coast of Louisiana. Again, the structure was in a Council-approved planning area and was toppled in place in 102 feet of water.

Louisiana's third reef was a cooperative effort between Mobile Exploration and Producing and Exxon Corporation. Since the structures scheduled for removal were not in a planning area, the participating companies had to transport the structures from offshore Texas to offshore Louisiana. Exxon towed two of its structures twenty-five miles to the West Cameron Planning Area and placed them on the permitted reef site. Mobile removed and transported its structure over 200 miles from a location off Corpus Christi, Texas to the established artificial reef site. Each company also has an actively producing platform within the state permitted site scheduled to be abandoned within the next few years. Both of these structures will likely be toppled in place once they cease production and are slated for removal.

CONCLUSION

Offshore oil and gas operators continue to express interest in participating in the Louisiana Artificial Reef Program. Negotiations to obtain platforms and associated monetary

donations are done on a case-by-case basis between the operator of the platform and the Department of Wildlife and Fisheries. The size, location, distance from shore, water depth, resale value, and proximity to a reef planning area are a few of the factors that affect the cost of converting a platform into an artificial reef. All factors considered, it is not always economically feasible to convert a platform into a reef.

Currently, the Louisiana Artificial Reef Program is investigating and establishing guidelines for the creation of artificial reefs in Louisiana's state and inshore waters. The first priority is to identify obstructions in Louisiana's coastal waters that are already acting as de facto reefs. To date, over 6,000 wellheads, shell pads, and platforms have already been identified and their locations mapped. Identifying and evaluating these obstructions is necessary to determine their effectiveness as reef materials and to decide whether or not to enhance some or all of these reefs with additional materials. Plans by the Louisiana Department of Wildlife and Fisheries are underway to produce maps of these locations and distribute them to fishermen.

Federal and state governments, the oil and gas industry, as well as commercial and recreational fishermen have already benefitted from Louisiana's artificial reef program. It will take continued cooperation of all the groups involved and support of the Gulf user groups to ensure that Louisiana's program will enjoy continued success in the future.

Rick Kasprzak is Louisiana's Artificial Reef Coordinator. Charles A. Wilson is an Associate Professor at the Coastal Fisheries Institute, Louisiana State University. Villere Reggio is Outdoor Regional Planner at the Minerals Management Service. The views expressed in this article are those of the authors and do not necessarily represent the opinions of the editors or the Mississippi-Alabama Sea Grant Consortium. □

figure 1

Offshore Louisiana Artificial Reef Planning Areas



- 1. West Cameron Planning Area
- 2. East Cameron Planning Area
- 3. South Marsh Island (76) Planning Area
- 4. South Marsh Island (146) Planning Area

- 5. Eugene Island Planning Area
- 6. South Timbalier Planning Area
- 7. West Delta Planning Area
- 8. Main Pass Planning Area

Reef complexes will be sited within each planning area. Reef complexes will not exceed 3/4 mi.² in area.

Development of an Artificial Reef Plan for Texas

by
Brett Dansby

INTRODUCTION

Artificial reefs are structures or systems of structures placed in waters for the purpose of enhancing fishery resources. Man has effectively used artificial reefs to attract aquatic organisms for several centuries, but as coastal populations and worldwide fishing pressure increases, so will the demand for additional sites.

The Texas Parks and Wildlife Department (hereinafter referred to as Department) has been involved in artificial reef construction since 1947. A total of 68 artificial reefs, covering over 1,200 acres of bottom substrate, have been constructed since 1947 in Texas bays and the Gulf of Mexico using various materials such as oyster shell, tires, cars, construction rubble, barges, pipes, drilling rigs, and ships. However, a 1986 Department study of existing artificial reef sites in Texas found that only 50 percent of these reefs remained in existence. The remaining structures were silted over or had been constructed of materials that had rapidly eroded. Availability of reef building material has never been a problem because numerous oil companies, interested user groups, and private individuals have offered the Department an assortment of material that would be difficult to dispose of otherwise.

In addition to intentionally constructed artificial reefs, over 2,000 unintentional reefs exist in Texas waters in the form of piers and docks, jetties, oil and gas well shell pads, offshore petroleum platforms, and open water dredge spoil areas. These unintentional reefs cover over 40,000 acres of bottom area.

LIBERTY SHIPS

The most noteworthy contribution to artificial reef development in Texas began in 1973 with the adoption of Texas Senate Resolution 102 which mandated the acquisition of Liberty Ships for creation of artificial reefs. The Texas Coastal and Marine Council (formerly the Texas Council on Marine Related Affairs), in conjunction with the Department, acquired title to twelve of the forty-two available Liberty Ships. The major impetus for development of Liberty Ship reefs was based on strong historical interest by recreational fishermen, combined with a steady increase in the coastal population of Texas.

Although funding for the Liberty Ship program was limited, salvage from the acquired vessels generated \$432,000. This money allowed the Marine Council to meet federal requirements and to maintain navigational aids on several sites for a short interval. Title, maintenance, and marking respon-

sibilities for the Liberty Ship sites and the proposed Flower Garden site were transferred to the Department in 1985 when the Marine Council was disbanded. The permit for the Liberty Ship reefs is renewable and may be amended to allow petroleum structures to be placed on the reefs, provided that certain size, placement and marking criteria are met.

MANAGEMENT CONSIDERATIONS

The debate among artificial reef authorities continues to center around the question of whether reefs actually increase fish biomass or merely concentrate the already existing biomass. There is evidence that artificial reefs attract fish, but many experts believe that the placement of more of these structures could be detrimental in areas where fish stocks are already overfished. For example, the red snapper - a major reef fish in Texas offshore waters - is currently being overfished. Management efforts that concentrate this species and thereby increase its vulnerability to angling can only serve to harm the population. A promising management strategy may be to require the Gulf of Mexico Fishery Management Council to designate artificial reefs off Texas as special management zones before placement begins. Within these zones, reef managers could impose gear restrictions to target virtually any user group, thus assuring the artificial reef will be compatible with the original intent of the permittee.

TEXAS ARTIFICIAL REEF PLAN

On May 1, 1989 the Texas Legislature enacted Senate Bill 5, which delegated general duties to the Department to create a state artificial reef plan for the purpose of promoting, developing, maintaining and monitoring artificial reef potential in Texas to the limit of the Texas Territorial Sea (out to 9 nautical miles) and in the Exclusive Economic Zone adjacent to Texas waters (out to 200 nautical miles). The Bill mandates that the Department establish an advisory committee; serve as permittee for artificial reefs; plan and review private permit applications; coordinate with state and federal agencies; conduct public hearings; oversee maintenance, construction, and placement requirements; and develop rules and guidelines concerning the collection of fees, grants, and donations to the Artificial Reef Fund.

The final goal of the plan is to establish artificial reefs that enhance and conserve fisheries resources, facilitate use and access by recreational and commercial fishermen, minimize conflicts and risks (e.g. environmental, personal, public health, and property) while also limiting the effects of fishing pressure on overexploited stocks.

As directed by the Legislature, the Texas Parks and Wildlife Commission appointed a nine member Texas Artificial Reef Advisory Committee to advise and make recommendations to the Department on details and specifications of the plan. The committee consists of the following members:

Organization

- 1) a saltwater sports fishing group
- 2) an offshore oil & gas company
- 3) the Texas tourist industry
- 4) the General Land Office
- 5) a shrimping organization
- 6) a Texas diving club
- 7) the Attorney General's Office
- 8) a Texas university
- 9) an environmental group

Member

- Irby Basco
Win Thornton
Eugene Dilbeck
Greg Pollock
Harris Lasseigne
Jim Morrison
Jim Mattox
William Fisher
Sharron Stewart

Senate Bill 5 creates an artificial reef fund and directs the Department, in conjunction with the Artificial Reef Advisory Committee, to develop rules and guidelines for collection of fees, grants, and donations of money or materials to this fund. Although the Department may accept financial assistance from outside sources, the bill stipulates that no state general revenue funds may be expended. Of course, the possibility exists that a donor-funded program may not generate the funds needed to maintain artificial reefs perpetually, and at this time it is unclear how the necessary long-term funding will be provided.

Senate Bill 5 removes liability from the state or a person who has transferred title of construction materials to the state. However, construction materials must meet applicable requirements of the National Fishing Enhancement Act of 1984, the U.S. Department of Interior, and all applicable permits before liability is removed. It is likely that the liability question will ultimately be resolved only in a court of law.

The Department was directed by Senate Bill 5 to complete the artificial reef plan on or before September 1, 1990. Staff began preparation of the plan in June of 1988 in accordance with the Department's six-year plan. It is already clear that the relatively shallow depths in offshore regions along the Texas Gulf coast will create several artificial reef management problems. First, it is difficult to place artificial reefs in locations that can be utilized by all user groups. Marking constraints, bottom composition, storm and wave energies, water clarity, and interference with shipping and national defense may require many reefs to be located beyond the distance most recreational anglers are willing to travel.

CONCLUSION

Senate Bill 5 represents a sound foundation for the development and management of artificial reefs. However, scientific evidence available at this time is mixed on the benefits of artificial reefs to the long-term management of the fisheries for reef fish. There is evidence that introducing additional artificial reefs would tend to concentrate reef fishes and, by making it easier to catch them, would lead to a net decrease in the biomass of the fishery. Further research on artificial reefs is needed to assess their impact on fish populations.

Brett Dansby was one of the original authors assigned to the Texas Artificial Reef Plan and is employed as a biologist in the Coastal Fisheries Branch of the Texas Parks and Wildlife

Department. The views expressed in this article are those of the author and do not necessarily represent the opinions of the editors or the Mississippi-Alabama Sea Grant Consortium. □

Rigs-to-Reefs in Alabama and Mississippi

INTRODUCTION

Platform jackets of offshore oil rigs provide an excellent artificial habitat for a variety of marine species. Over a relatively short period of time, an oil rig will be covered with biofouling organisms which will then provide places of attachment for secondary organisms. This quick proliferation of marine life attracts many invertebrates and fishes. It is believed that the artificial reef provides protection against currents and gives smaller fish shelter before they enter the food chain. Many fishermen, both commercial and recreational, have reported record catches in both size and volume near oil rigs.

According to the Outer Continental Shelf Lands Act, 43 U.S.C. 1331 *et seq.* and Minerals Management Service offshore lease requirements, all offshore oil platforms must be removed when production ceases. However, this removal is expensive and reduces the beneficial ecological aspects of the oil rig and its surrounding marine community. It is with these two considerations — the ecological benefits and the high cost of removal that the rigs-to-reefs idea was born.

This article will examine some of the economic and policy implications associated with creating artificial reefs from obsolete oil rigs. It will then describe the legal structure governing rigs to reefs in the states of Alabama and Mississippi. Neither Alabama nor Mississippi has instituted programs or legislation encouraging the use of obsolete oil rigs as artificial reefs. However, both states have enacted a permit system to be followed by persons interested in constructing an artificial reef that is applicable to petroleum platforms.

DISCUSSION

Recent calculations show that over 4,500 oil and gas platforms are located in the Gulf of Mexico. Of these 4,500 rigs, approximately 90 percent are in waters off Louisiana, with most of the remainder in waters off Texas. In comparison, there are perhaps 20 to 30 platforms off Mississippi and Alabama due to recent natural gas discoveries. Louisiana has an active rigs-to-reefs program — primarily because of the logistical advantages offered by the large number of offshore rigs off its coast.

Logistics play an important role in the establishment of rigs-to-reefs because of the great cost associated with rigs-to-reefs development. When oil companies decide whether to scrap

obsolete oil platforms or donate them for use as artificial reefs the decision is largely one of economics. There are three major cost components to be considered in transforming oil rigs into artificial reefs. These costs are: (1) the dismantling costs; (2) the possible salvage value lost by making the rig into a reef; and (3) the transportation and installation costs. The transportation costs associated with rigs-to-reefs development are usually the largest cost component, unless the rig is toppled in place.

In simple economic terms oil companies will donate petroleum platforms for use as artificial reef only if the dismantling, transportation, and installation costs are less than the dollar value to be gained by selling the platform for scrap. At the present time the conversion of a rig to an artificial reef is usually not profitable. An exception is the toppling of a rig at the site at which it lies. However, this normally cannot be done because many oil rigs are several times larger than the depth of the water in which they are situated. Consequently, economic incentives must be offered to the petroleum companies, and ways must be found to absolve the company of any future liability the sunken rig might pose. If economic incentives are to be offered, then the ecological and environmental benefits of an artificial reef must be quantified into dollars: not an easy task.

It has been widely suggested that petroleum companies be given tax credits and tax deductions for donating oil platforms for use as artificial reefs. This is appealing at first examination; however, removal of the petroleum platform is mandated by law. The offering of tax benefits would simply be a payment to follow existing law. It is also unlikely that such a tax incentive plan would receive substantial support in Congress given the fact that with the exception of California and the Gulf states, no other states would benefit from the sinking of rigs.

Alabama

In 1983, Marathon Oil Company donated an obsolete oil rig to the Alabama State Marine Resources Division of the Department of the Environmental Management. According to the agreement with Marathon, the State of Alabama was responsible for securing the necessary permits from the U.S. Army Corps of Engineers. The State of Alabama would pay no costs, but would assume liability once the structure had been sunk. It was necessary to tow the rig a long distance from Louisiana waters. The oil rig was sunk on June 27, 1983, approximately 55 miles southeast of Mobile Bay in 240 feet of water. It would have been desirable to sink the oil rig in shallower water, but this could not be done because compliance with U.S. Coast Guard Regulations require that there be at least 85 feet of clearance between the highest point of the sunken oil rig and the surface of the water, or a buoy must be put into place marking the location. Alabama could not afford the cost associated with maintaining a buoy, and thus put the oil rig in deeper water.

Since 1985, Alabama has secured from the Corps of Engineers state oversight of artificial reef placement. The Mobile District of the U.S. Army Corps of Engineers issued two permits to the Alabama Department of Conservation and Natural Resources; authorized by Section 10 of the Rivers and Harbors Act of 1899, 33 U.S.C. §403 *et seq.* and Section 404 of the Clean Water Act, 33 U.S.C. §1344 *et seq.* These permits established two areas off of Alabama in which persons using appropriate materials can construct artificial reefs. The first location approved for artificial reefs is the area off of Perdido Pass. The second location is for the area southeast of Dauphin Island.

Once the permit has been filed by persons seeking to construct an artificial reef, it is reviewed by the Alabama Department of Environmental Management. This review is conducted to ensure the artificial reef will comply with state water quality standards. The application for authorizations is circulated to other state agencies for any objections. It clearly indicates on the Alabama application for artificial reef construction that special conditions may include "other restrictions which are requested and appropriate from resource or other agencies." If there are no objections, the Corps will issue an authorization for the reef construction to proceed.

Mississippi

Mississippi has established a permitting program similar to Alabama's. The program has been initiated by the Mobile District of the U.S. Army Corps of Engineers and the Mississippi Bureau of Marine Resources. Covered within the program is the issuance of permits for activities in waters of the United States, within the regulatory boundaries of the Corps' Mobile district. As with Alabama's program, authority is pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. The program requires that any artificial reef constructed by an individual or corporation be conducted in compliance with the state coastal zone management program of the Mississippi Bureau of Marine Resources.

The permits that apply to artificial reef construction state: "any accepted standard fishery management technique except diking and filling in waters of the United States may be authorized under this general permit." Any artificial reef construction application pertaining to the coastal waters would be coordinated between the Mississippi Bureau of Marine Resources and the Corps of Engineers. If a person seeks to construct the artificial reef in outer continental shelf waters, the permitting will also be coordinated with the United States Department of the Interior, Minerals Management Service.

According to a joint public notice issued by the U.S. Army Corps of Engineers and the Mississippi Bureau of Marine Resources dated September 7, 1988, a number of restrictions will be placed upon persons or corporations seeking to sink

petroleum platforms as an artificial reef. The most relevant restrictions include denials for: (1) structures and activities that may interfere with navigation; (2) activities which will adversely impact, or threaten endangered species or their critical habitat; (3) activities which will impact, affect, or otherwise degrade cultural resources such as archaeological sites (primarily historical shipwrecks); and (4) activities that do not meet state-ordered water-quality standards.

CONCLUSION

While Mississippi and Alabama have permitting procedures in place, the permitting system itself will do nothing to encourage the sinking of petroleum rigs for artificial reefs. Oil companies will only donate petroleum platforms for use as artificial reefs if the cost of donating them is less than the amount received from scrap value. It is clear that economic and logistical concerns will remain a major obstacle to an active rigs-to-reefs program in Mississippi and Alabama. Currently, obsolete oil rigs must be towed from areas offshore of Louisiana and Texas. This may change in the future as the natural gas platforms off Mississippi and Alabama become obsolete and need to be disposed. Until then, research should continue to determine what role, if any, the states of Mississippi and Alabama should play in encouraging the conversion of obsolete oil rigs to artificial reefs. □

Robert Grace

Liability Considerations in a Rigs-to-Reefs Project

*by
Al Sage*

INTRODUCTION

Legal liability considerations are a fact of everyday life; this is no less true in an artificial reef project. Liability considerations in a rig-to-reef project are magnified to a certain extent by the size of the materials, but the legal principles are the same. The discussion below is intended to outline the law affecting an artificial reef project, no small task since such a discussion must take into account various statutes, regulations and common law principles. Citation of these sources is avoided except in a few instances. Almost wholly omitted from the discussion is the broad field of environmental law and resulting liability considerations. Instead, the focus is on common law theories of liability, liability under admiralty and maritime law, liability under the National Fishing Enhancement Act (NFEA) 33 U.S.C. §§2101-2106 (the federal law designed to encourage artificial reef development), the liability considerations in the different stages of reef projects, and defenses against liability. As will be noted, this is an

unsettled area of the law. There are no reported cases involving artificial reef liability issues, therefore one must analogize when giving examples or illustrations of the issues.

THEORIES OF LIABILITY

The theory of liability applicable to any particular cause of action depends on the identity of the persons and things involved, the place where an incident takes place, when it takes place and why it occurs. A lawyer begins a legal analysis of liability much the same way a reporter begins to write a story, by applying the five "W's" of the journalist, and perhaps adding an "H" for "how". The identity of the actors, the things involved, and sometimes the place, control the standard of care owed by one to another. The "where" can, but does not always, control the particular law applicable to a case. The "when" and the "why" can determine the defenses available. The "how" may determine the applicable rules and can also make available certain defenses.

Negligence

The term negligence is used to describe a theory of liability that is based on conduct that falls below that which the law requires. It is the failure to do something that a reasonably prudent and careful person would do under like circumstances, or the doing of something that a person of ordinary prudence would not do in a similar situation. For a cause of action in negligence to be maintained several elements must be present. There must be a duty to act or refrain from acting; there must be a breach or violation of that duty; there must be a sufficient causal connection (referred to as proximate cause) between the breach of duty and the resulting injury; and finally there must be actual harm, i.e. actual, measureable harm for which the law allows monetary compensation. It must have also been foreseeable that a breach of any existing duty would result in injury. If a person could not reasonably anticipate that harm would be the likely result of acts or omissions then liability does not attach.

Since negligence is conduct that fails to conform to the legal standard, the care required by the law in a given situation is of great import. Most often the standard required is "reasonable care" under the circumstances. However, there are situations that give rise to a greater degree of care. Those who engage in "inherently dangerous activities" (such as demolition work) are usually called upon to exercise "extraordinary care."

Although the degree of care owed to a party is most often that of reasonable care, there are exceptions based on the status the law has given a particular individual. For instance, trespassers may not be afforded the same degree of care as one who is classified as an "invitee" or "licensee."

The applicable standard of care is most often established by court determination. A court, after reviewing a fact situa-

tion will often state that the conduct involved was or was not negligent. However, legislation provides another important source for dictating the applicable standard of care. Legislation may either expressly, or by implication provide relief for damages caused by a violation.

To illustrate how these principles would apply to artificial reefs, consider the following fact situation. A diver is injured while diving on an artificial reef. The diver's status determines the standard of care which he is owed. If he is given a status similar to an invitee, he at least will be owed a duty of reasonable care. The next question is whether or not the action or failure to act was a breach of the duty to exercise reasonable care. Under the NFEA, the artificial reef developer must acquire a permit from the U.S. Army Corps of Engineers. The statute and the permit both require the developer to maintain the reef in good condition. If the reef developer allows the reef to deteriorate when deterioration could have been avoided or remedied, or fails to warn about existing danger if the deterioration is unavoidable, a breach of the duty to use reasonable care has probably occurred. Consequently, if the developer owed a duty to the diver, and breached that duty by failing to use reasonable care, resulting in an actual injury to the diver that was foreseeable, then all of the elements for a negligence cause of action are present, and the developer is subject to suit.

Strict Liability

Strict liability is a legal theory that imposes liability for injury without consideration of fault. Under a strict liability theory one may be held liable despite exercising reasonable care. This theory is most often applied in products liability cases, where the manufacturer of a product may be held strictly liable for injuries resulting from a defect in a product even though the injured party cannot prove negligence on the part of the manufacturer. The concept is based on the premise that when a manufacturer places his goods in the "stream of commerce", he represents that they are suitable for their intended use.

A possible application of this theory to artificial reefs might involve reef material that is defective at the time the donor of the material passes title to the reef operator or permittee. The NFEA provides that the donor of reef materials is not liable if the material meets the applicable standards of the National Reef Plan and is "not otherwise defective at the time title is transferred." Assume the case of an injury caused by loose material on an obsolete oil platform used as a reef. Even though the donor did not know of the defect and even exercised reasonable care to find defects, an argument could be made that he nevertheless is liable.

Maritime or Admiralty Law

Maritime or admiralty law is a system of law that particularly relates to marine commerce and navigation. Because it

extends to civil actions for personal injuries or damage to property, there may be circumstances surrounding artificial reef development when it would supercede non-maritime theories of liability. This area of law is complex and beyond the scope of this article. However, one must be aware that if an injured party is classified as a "seaman", a completely different set of legal rules may apply.

STAGES OF DEVELOPMENT AND LIABILITY CONSIDERATIONS

Each stage of development of an artificial reef, whether created by the use of an obsolete oil rig or otherwise, may have its own unique risks. The following discussion briefly covers some of the liability considerations that should be made at each stage.

Preparation of Materials

At this stage of reef development a primary concern is the prevention of pollution of the marine environment and the prevention of injuries to persons or property. Therefore, attention should be given to ensure that the materials used are as clean as possible and suitable for use as an artificial reef. Otherwise, a permittee's or operator's concerns about liability at this stage depend on how involved he is in the actual preparation process. If the permittee or operator is directly involved, adequate risk management measures should be taken, including procuring insurance where needed. On the other hand, if the permittee or operator is not directly involved and does not have any control over the process, liability concerns are not as great. For instance, if the actual work and direct control of all actions taken concerning that work is undertaken by another party, the active party most likely will occupy the position of an independent contractor and is usually solely responsible for any injury caused by his action. However, control can include instructions given to the contractor as to how certain actions are taken; therefore, the fact that the actual work is done by another can, but does not always, relieve a permittee or reef operator of liability.

Oil Platform Removal and Preparation

The comments in the previous section are applicable here. It is the oil company's responsibility under the Outer Continental Shelf Lands Act, 43 U.S.C. §§1331-1356 and Minerals Management Service regulations 30 C.F.R., Part 250 (1989) to remove and clean the platform or other material. If the oil company contracts with someone else to do this, its contract should provide that the contractor is solely responsible for carrying out its task. In many cases, even though the contractor will probably be considered an independent contractor, these contracts contain indemnification agreements in case of injury.

Towing Material to Site

Again, the same comments apply. In most cases, an indemnification agreement is entered into by the parties. Moreover, the tow operator is almost always in the legal position of an independent contractor and other parties will not be held liable for his actions because they do not exert a significant degree of control over those actions.

Placement of Material on Bottom

In this stage, the legal lines between the permittee and other parties begin to blur and the permittee may have a duty to see that the material is placed in the proper location by the towing contractor. This duty may be lessened if the permittee contracts with the tow operator to properly place the materials and leaves this in his control. However, the permittee is charged by the permitting authorities (i.e., the U.S. Army Corps of Engineers and the U.S. Coast Guard) with this responsibility and it may not be possible to contract away legal liability. The permittee should work with the tow operator to ensure that the materials are placed in the proper location.

If the tow operator has not assumed or has contracted away responsibility for proper location of the materials, the permittee should be able to prove that the tow operator agreed with the permittee's decision about placement of the materials.

Maintenance

Maintenance of the reef is the responsibility of the permittee, according to the terms of the permit and general theories of liability. Most permits will probably require that the material be maintained in good condition. What that means is unclear, because it necessarily requires predicting judicial interpretation of permit language and statutory and regulatory provisions. It is likely that most artificial reefs will be constructed of materials that will not last permanently in the ocean. "Maintenance in good condition" probably means regular inspections and eliminating dangerous conditions, such as removal of loose materials that cannot be adequately secured. If necessary, warnings of dangerous conditions should be posted on reef buoys or the reef itself.

DEFENSES

A defense is that which is offered by the party proceeded against as a reason in fact or in law why the injured party should not establish or recover what he seeks. Various defenses are available that operate to either diminish an injured party's cause of action or defeat recovery, some of which are described below.

Exercise of the Applicable Standard of Care

The law imposes a standard of care (most often the standard of reasonable care) that must be exercised in given situations. Consequently, proof of the exercise of the appropriate stan-

dard of care is a defense in an action for injuries alleged to have resulted from a breach of that standard.

Compliance with Statutes

Compliance with statutory and regulatory requirements and permit conditions may be used as evidence of adherence to the appropriate standard of care. Additionally, in the case of artificial reefs, compliance with permit conditions may give rise to a kind of "backdoor" immunity from liability under the provisions of the National Fishing Enhancement Act. The Act states that permittees will not be liable "for damages caused by activities required to be undertaken under any terms and conditions of the permit, if the permittee is in compliance with such terms and conditions." This may only be interpreted to cover damages caused by the actual performance of permit conditions, and not to mean that compliance with permit conditions is itself evidence of compliance with the applicable standard of care. A permittee may attempt to maintain a reef in good condition, but may not be able to do so even through the exercise of reasonable care. If the permit is very specific about what "maintain in good condition" means, the permittee can plead compliance with permit conditions and assert immunity under NFEA.

Contributory Negligence

Contributory negligence is negligence of the injured party which contributed to his injuries. In some states, proof of contributory negligence is an absolute bar to an action for injuries caused by the negligence of another. In other states, the proof of contributory negligence causes the award to be reduced proportionately (then more accurately described as comparative negligence or comparative contributory negligence).

Assumption of Risk

This defense is similar to contributory negligence. It is founded on the premise that if the injured party knew the risk involved and proceeded in spite of it, he should be barred from recovery. Assumption of the risk is sparingly applied because it is a complete bar to recovery and because, by definition, it means that the injured party fully appreciated the particular risk involved and ignored it. The theory does not apply to a general risk, such as the dangers of diving, rather the risk must be specific and the danger of that specific risk must be fully appreciated by the injured party.

Immunity

Under the doctrine of immunity a party may be exempted from liability. Two broad types of immunity that may apply in situations involving artificial reef developments are sovereign or governmental immunity and nonprofit organization immunity. Sovereign immunity is a judicially created

doctrine based on the theory that certain functions are exercised by governmental entities because they are not profit-making and therefore won't be exercised by private enterprise. Because these functions are necessary for the public good, they should be conducted without fear of liability. Although the doctrine has been largely diminished in most states by either statute or court decision, where applicable, sovereign immunity is a complete bar.

The same comments generally apply to nonprofit immunity. Often, the activities conducted by a nonprofit organization are those that do not generate substantial profits, and therefore are not conducted by private enterprise. When applicable, it is also a complete bar to recovery. In some situations, public entities or private individuals interested in an artificial reef project might consider the formation of a nonprofit organization.

In addition to these types of immunity, there are also statutes that grant immunity for specific types of actions. These are all important to public entity permittees of artificial reefs because they can be a total bar to suits for damages for personal injury in many cases.

It should be noted that sovereign immunity applies only to the public entity; it does not apply to public officials and employees. Individuals who work for public entities often assume they are covered by sovereign immunity; however, this is not the case. There is a somewhat similar doctrine called public official immunity that applies to individuals in limited circumstances and only in cases involving simple negligence. It does not protect a person who is grossly negligent in the performance of his duties. The individual must be an official operating at a high level in the policy-making area of the entity. He or she must be acting in their official capacity, i.e. performing official duties, and exercising a discretionary function. "Discretionary" means policy-making, planning level types of functions, not tasks of a clerical nature. The privilege of official immunity is a qualified privilege, but once one meets the conditions outlined above, the immunity is as absolute as sovereign immunity.

AN OUNCE OF PREVENTION

If the old saying "an ounce of prevention is worth a pound of cure" was not first coined by a lawyer, it certainly could have been, for in no area of life is it more applicable than when talking about legal liability. The following is intended to describe some of the actions that might be taken to avoid trouble or, in the event that trouble does occur, to protect against the payment of damages.

Waivers or Releases

In many cases, waivers or releases from liability can be employed to eliminate potential liability problems. Some waivers have been deemed to be void as against public policy because they affect substantial public interests or because they

are the result of unequal bargaining power between the parties to the agreement. This should usually not be the case in artificial reef projects since the parties would most likely be dealing from equal bargaining positions.

Indemnification Agreements or Bonds

Indemnification contracts are agreements in which a party agrees to indemnify another for any damages the second party may have to pay because of actions of the first party. Bonding agreements involve a third party, usually an insurance company, who guarantees an indemnification arrangement. Any time an independent contractor performs tasks related to a reef project, and particularly when he is being compensated for those tasks, indemnification agreements or bonding arrangements should be considered by permittees or reef operators.

Since oil companies are responsible under the Outer Continental Shelf Lands Act and MMS regulations for cleaning platforms before they are removed from the bottom, they should provide an indemnification to reef developers for damages resulting from pollution caused by improperly cleaned materials.

Warnings

Warnings serve two purposes: to prevent injuries and to provide evidence of the use of reasonable care in case an injury occurs. Thus, they can serve as true loss prevention devices, as well as establishing a defense if an injury does occur.

Permit Requirements and Maintenance Schedules

As previously mentioned, there exists the possibility that compliance with permit conditions may create an "immunity" from liability, if the actions complained of are specifically required in the permit. While this may be considered a "backdoor" approach to damage avoidance, there is still the strong possibility that a court (and jury) may find compliance with permit conditions to be evidence of the exercise of reasonable care.

Insurance

Finally, one should always consider the use of insurance to cover the risk inherent in reef projects. While governmental entities may be immune, the individuals running the government may not be personally immune. As discussed, reefs projects may not fall within the class of actions protected by governmental immunity. Liability insurance purchased by governmental entities usually covers employees.

If liability insurance is not available through government coffers, an individual should consider personal liability insurance. In many cases, professional pursuits riders on automobile policies or comprehensive dwelling policies

(homeowners policies) are relatively inexpensive and well worth the cost in terms of lawyer's fees alone.

CONCLUSION

As is fairly obvious, the lack of case law on this subject makes it difficult to give specific guidance on all of the problems involved in a rig-to-reef project. Without knowledge of such guidelines as the standard of care to be applied and the protection afforded by compliance with statutory and permit conditions, it is impossible to say that a particular action is the correct one. However, certain general principles apply and a good lawyer can point out the areas in which caution should be exercised. Again, prevention is better than cure, so to invoke another old saying: "plan your work and work your plan!"

Al Sage is the Deputy Director of the Mississippi Law Research Institute, University of Mississippi Law Center. The views expressed in the article are those of the author and do not necessarily represent the opinions Mississippi-Alabama Sea Grant Consortium. □

A Summary of the Recently Adopted IMO Guidelines and Standards for Removing Abandoned Offshore Structures

INTRODUCTION

There has been growing concern in recent years over the international legal status of disused or abandoned offshore installations and structures. Complete removal is mandated by Article 5(5) of the 1958 Continental Shelf Convention which states that "any installations which are abandoned or disused must be entirely removed." The United States is a party to the 1958 Convention and current U.S. law requires that oil and gas operators entirely remove any disused or abandoned structure on the continental shelf unless the structure qualifies as an artificial reef pursuant to the National Fishing Enhancement Act of 1984.

During the negotiations that led to the signing of the 1982 Law of the Sea Convention (LOS Convention), oil industry representatives requested that the removal issue be reexamined. In the Gulf of Mexico alone there are nearly 4500 offshore oil and gas drilling platforms and it has been estimated that production at wells on about half of these platforms will come to an end by the close of the century. Predictions are that it will cost \$2 billion to remove these platforms from the Gulf of Mexico and up to \$30 billion to remove all non-producing platforms worldwide. The oil industry lobbied hard for a provision in the LOS Convention that would grant coastal states the discretion to allow some abandoned

structures to remain on the seabed if they do not pose a risk to navigational safety or to the marine environment.

Despite concerns expressed by a number of delegations regarding the detrimental impact of non-removal or partial removal on navigational safety, commercial fishing interests and the quality of the marine environment, the final text of the LOS Convention contained language that granted more flexibility to coastal states to determine whether or not abandoned structures need be entirely removed. Article 60(3) of the LOS Convention provides:

Any installations or structures which are disused or abandoned must be removed to ensure safety of navigation, taking into account any generally accepted international standards established in this regard by the competent international organization. Such removal shall also have due regard to fishing, the protection of the marine environment and the rights and duties of other states. Appropriate publicity shall be given to the depth, position and dimensions of an installation not entirely removed.

The International Maritime Organization (IMO), headquartered in London, is the competent international organization referred to in Article 60(3). In 1986 IMO began the formidable task of establishing international standards to govern the removal of offshore structures. In October of 1989 a final resolution containing the final guidelines and standards was adopted by the IMO General Assembly. The IMO resolution has no immediate binding effect because the LOS Convention has not yet entered into force. However, it does represent an international consensus and will likely serve as a model for many nations as they enact domestic legislation to regulate the removal of offshore structures in their own waters.

The purpose of this article is to provide an overview of the IMO removal provisions. Each of the major guidelines and standards will be summarized, followed by an examination of possible implications on existing United States removal policy.

SUBSTANTIVE PROVISIONS

General Removal Requirement

The final IMO resolution is divided into three major sections: an introductory section that explains the removal obligations and policies required of coastal states; a section of general guidelines; and a section containing more detailed standards. The introductory section provides that all abandoned or disused structures on any continental shelf or exclusive economic zone will be removed unless specifically exempted. (MSC 57/27/Add.2 ANNEX 31 1.1). Coastal states should ensure that all guidelines and standards are complied with. Removal should be performed as soon as reasonably practicable after abandonment or permanent disuse of any structure. (1.2). The IMO should be notified whenever a structure is not completely removed. (1.3). Finally, it is permissible for coastal

states to enact removal requirements that are more stringent than those called for by the IMO. (1.4).

Guidelines

The second section is made up of a set of fairly broad guidelines that coastal states should take into account during each case-by-case removal determination. Criteria to be evaluated include:

- potential effect on the safety of surface or subsurface navigation
- rate and future effect of structural deterioration
- possible effect on the marine environment
- potential risk that the debris will shift from its present location
- costs, technical feasibility and risks of injury associated with removal
- and the determination of a new use or other reasonable justification for allowing it to remain. (2.1-2.6).

A set of additional criteria are specified to assist in the evaluations of navigational safety and protection of the marine environment. Supplemental safety considerations include the number, type, draught and cargo of vessels expected to transit the area; general oceanographic and climatic conditions; the proximity to designated or traditional sea lanes and commercial fishing area; and whether the structure is located in an approach to or in straits used for international navigation. (2.2). Any determination of the effect on the marine environment should be based on scientific evidence, taking into account water quality; geologic, hydrographic and biological habitat characteristics; the presence of endangered or threatened species; the impact on local fisheries resources; and the potential for pollution caused by deterioration of the offshore structure. (2.4).

Coastal states should officially authorize structures to remain on the seabed after identifying the conditions that would allow such an action. A specific plan should be adopted by the coastal state to monitor the movement of the material left on the seabed and to ensure that there is no subsequent adverse impact on navigation or other uses of the sea. In addition, advance notice should be provided to mariners relative to specific position, depth and markings of the structure. Advance notice should also be provided to the appropriate hydrographic services to allow for timely revision of nautical charts. (2.5).

Standards

Specific standards make up the final section of the removal provisions. Unlike the introductory and guideline sections that are primarily concerned with establishing a general procedural and attitudinal framework, the standards section provides coastal states with the objective criteria upon which to base removal decisions.

The first standard is the foundation upon which all the other

standards are constructed and reads as follows:

All abandoned or disused installations or structures standing in less than 75 meters of water and weighing less than 4,000 tons in air, excluding the deck and superstructure, should be entirely removed. (3.1).

It has been estimated that less than ten percent of all existing offshore platforms are in water depths over 75 meters. Even taking into account the additional structures located in shallower waters that are larger than 4,000 tons and the growing number of structures each year that are being placed in waters deeper than 75 meters, it is clear that most abandoned offshore structures technically fall within the complete removal category stipulated in standard. (3.1).

There are exceptions, however, that allow coastal states to exempt structures that fall within standard 3.1. A structure may be left wholly or partially in place on the seabed if it will serve a new purpose such as enhancement of a living resource. (3.4.1). It may also be left in place if the coastal state determines that entire removal is not technically feasible or would involve extreme cost, or an unacceptable risk to personnel or the marine environment. (3.5). Any structure that does not fall within the constraints of standard 3.1 may be left on the seabed if it does not cause unjustifiable interference with other uses of the sea. (3.4.2).

Any abandoned structure that remains on the seabed and projects above the surface of the sea should be adequately maintained to prevent structural failure. In cases of partial removal not projecting above the surface, an unobstructed water column of not less than 55 meters should be provided. If the structure serves a new use such as an artificial reef, it need not comply with the 55 meter clearance standard. (3.6).

Structures which no longer serve the primary purpose for which they were originally designed or installed must be entirely removed if located in approaches to or in straits used for international navigation or in other customary or archipelagic deep-draught sea lanes. Complete removal without exception is also required for structures immediately adjacent to IMO designated routing systems. (3.7). Removal should be performed in such a way as to cause no significant adverse effects upon navigation or the marine environment. During the removal process, structures should continue to be marked and the position, depth, and dimensions of any remaining debris reported at least 120 days in advance to advise mariners and the appropriate hydrographic charting services. (3.3 & 3.8).

Before giving consent to the non-removal or partial removal of a structure, the coastal state should satisfy itself that any remaining materials will not shift on the seabed thereby causing a hazard to navigation. (3.9). The coastal state should identify the party responsible for maintaining aids to navigation and for monitoring the condition of the remaining material. (3.10). In addition, the coastal state should ensure that legal title to structures that have not been entirely removed is unambiguous and that responsibility for maintenance and

the financial ability to assume liability for future damages are clearly established. (3.11).

Finally, the standards indicate that these provisions should be applied to existing as well as future structures (3.14), and that on or after January 1, 1998, no structure should be placed on any continental shelf or in any exclusive economic zone unless its design and construction makes complete removal upon abandonment feasible. (3.13).

IMPLICATIONS FOR U.S. POLICY

Domestic Waters

Offshore oil and gas operators in U.S. waters should not be immediately affected by the new IMO guidelines. Although the United States played a major role in the IMO negotiations, it is not a signatory party to the LOS Convention. In addition, the IMO resolution clearly grants coastal states the discretion to enact more stringent removal requirements. Moreover, the United States remains a party to the 1958 Continental Shelf Convention and therefore will likely continue to enforce Department of Interior regulations that require offshore lessees, within one year after lease termination, to remove all devices, works and structures from the lease site.

In recent years, the Minerals Management Service, the U.S. Army Corps of Engineers and other federal agencies with regulatory authority over offshore oil and gas development have begun to support the concept of converting abandoned offshore structures into artificial reefs. Moreover, states such as Louisiana and Texas have enacted legislation pursuant to the National Fishing Enhancement Act of 1984 to encourage the "rigs to reefs" concept in federal waters adjacent to their coasts (for a discussion of the Louisiana and Texas artificial reef programs see *supra*). None of these programs should be affected by the actions at the IMO, because the removal provisions specifically exempt artificial reefs from most of the more restrictive requirements, including mandatory removal in waters of less than seventy-five meters and minimum water column clearance of fifty-five meters. Moreover, the national and state artificial reef plans already contain standards that are generally more stringent than those of the IMO.

As offshore rigs are placed farther out on the U.S. continental shelf and therefore become more expensive to remove and less of a danger to navigation and other ocean uses, it is likely that the federal government will come under increasing pressure to liberalize its removal requirements. This will be especially true if the LOS Convention enters into force and a sizable number of other nations begin to apply the IMO provisions. Under these circumstances, international competitive forces for oil and gas production may force the U.S. government to adopt a more flexible removal policy.

will likely have in domestic waters, United States policy and interests may be immediately affected in other nations' offshore areas. Should coastal states interpret the IMO standards loosely and allow a substantial number of abandoned offshore structures to remain on the seabed, U.S. naval vessels may be subject to a significantly more dangerous environment in which to operate. Submarines are especially vulnerable to collisions with bottom debris. Other U.S. interests that may be affected include: losses to commercial fishermen as the result of being excluded from certain fishing grounds and for lost or damaged equipment; navigational hazards and routing inconveniences for merchant vessels; and difficulties in conducting marine scientific research.

CONCLUSION

The recently adopted IMO removal provisions provide substantial, but not unlimited, discretion to coastal states to determine whether or not abandoned structures need be removed from their continental shelves and exclusive economic zones. Only in cases where a structure is located in approaches to or in straits or routes used for international navigation is there a removal requirement without exception. Structures in waters of less than 75 meters and weighing less than 4000 tons should be entirely removed, but may be exempted by the coastal state if any of the following determinations are made: (1) the structure will serve a new use; (2) removal is not technically feasible or would involve extreme cost; or (3) removal would cause an unacceptable risk to personnel or the marine environment. Structures in waters of more than 75 meters or weighing more than 4000 tons may be left in place as long as they do not cause an unjustifiable interference with other uses of the sea.

The true impact of the IMO guidelines and standards on U.S. interests will ultimately depend upon how they are implemented and enforced in various coastal states. It remains to be seen whether the provisions ultimately prove to be a valuable tool for the thoughtful and efficient development of our ocean resources or simply become another method for coastal states to avoid their obligations to clean up the marine environment. □

Richard McLaughlin

TEDs Update Revisited: "TEDs Go! TEDs No!"

INTRODUCTION

Turtle Excluder Devices: their use on shrimping vessels is mandated by Congress under the Endangered Species Act, regulated by the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA), implemented by NOAA's National Marine Fisheries Service (NMFS), and

Foreign Waters

Unlike the minimal impact that the IMO removal provisions

enforced by the United States Coast Guard. Impetus for the requirement is that if shrimp fishermen equip their boats with the cage-like devices that allow sea turtles to swim free from trawl nets, turtle drownings will be reduced. However, since inception of the idea, the concept has been fraught with controversy and confusion. The "final rule" issued by NMFS on June 23, 1987 established October 1, 1987 for the Canaveral Channel off of Cape Canaveral, Florida, and March 1, 1988 for the South Atlantic and the Gulf of Mexico as the effective dates for its requirement that shrimpers install and use TEDs in all trawls when trawling in offshore waters on vessels twenty-five feet in length or longer. Smaller vessels or any vessels trawling in inshore waters were given the option of using TEDs or reducing trawl towing time. However, since the promulgation of the NMFS rule the specifics of the requirements have undergone so many changes that even the government agencies responsible for their implementation and enforcement have at times had difficulty knowing what they were.

WATER LOG has been monitoring the peculiar odyssey of the "TEDs regs" as they travel back and forth through the courts, the Congress, the agencies, and the newspapers to keep our readers abreast of the developments as they occur. In Vol. 4, No. 4 we devoted our entire issue to the TED controversy, with an in-depth discussion by former staff attorney Dan Conner and replies by Tee John Mialjevich of the Concerned Shrimpers of America and Michael Weber of the Center for Marine Conservation (formerly the Center for Environmental Education). In Vol. 8, No. 1 guest contributor Fred Whitrock provided a discussion of then-current TED activity. Now, once again we bring you an update. The following is a chronology of events that have occurred since our last report.

•July 11, 1988 - On this date the United State Court of Appeals for the Fifth Circuit affirmed a lower court ruling that the TEDs regulations were valid. A challenge had been brought by the State of Louisiana and a commercial shrimpers action group called Concerned Shrimpers of America before the U.S. District Court for the Eastern District of Louisiana in August 1987. The district court found the rules to be valid but granted the request made by Louisiana and Concerned Shrimpers for an injunction against enforcement pending final disposition of their appeal to the Fifth Circuit. The Fifth Circuit upheld the rules but continued the suspension of enforcement until September 1.

•August 31, 1988 - Congress was still at work examining the issue of TEDs as it considered amendments to the Endangered Species Act. During the spring and summer of 1988 the House and Senate both addressed sea turtle conservation and adopted separate bills. This meant that the bills had to be sent to a conference committee that included members from each House. Because the committee could not meet before the September 1 deadline, Congress enacted an extension that delayed the effective date for TEDs enforcement until

September 17.

•September 17, 1988 - The conference committee was unable to work quickly enough to meet the September 17 deadline. Consequently, NMFS was forced to announce that the existing law would take effect and that it would begin enforcing TEDs requirements on September 18.

•September 23, 1988 - Both Houses of Congress approved amendments reauthorizing the Endangered Species Act and sent it to the President for his signature. The amendments delayed the effective date of the rules until May 1, 1989 in offshore areas, and May 1, 1990 in inshore areas, except for the Canaveral Channel, where the regulations had been in force since October 1, 1987. The legislation also required the National Academy of Sciences to conduct a study on the need for sea turtle protection in inshore waters. The study must be completed and reviewed before the May 1, 1990 deadline.

•October 7, 1988 - President Reagan signed the legislation and the Endangered Species Act Amendments of 1988 became law.

•May 1, 1989 - This was the effective date for enforcement of the TEDs requirements in offshore waters. Although the U.S. District Court for the Eastern District of Louisiana denied the Louisiana Attorney General's request for a temporary restraining order against TEDs enforcement, Secretary of Commerce Robert Mospbacher instructed federal agents not to fully enforce the regulations, but to issue only warnings during May and June. This sixty-day grace period was intended to give shrimpers a chance to buy and install TEDs.

•July 1, 1989 - The Commerce Secretary received numerous complaints from Gulf Coast shrimpers and their congressional advocates that seagrasses were clogging TEDs and ruining shrimp catches. The Secretary again ordered the Coast Guard to suspend enforcement while NMFS investigated these claims.

•July 22, 1989 - Upon Secretary Mospbacher's announcement that he had to reinstate the rules, Gulf Coast congressional representatives again complained and insisted on a meeting with the Secretary. Meanwhile, the already-heated emotions of the shrimping community escalated. Over the weekend angry shrimpers held protests at several locations across the Gulf, blockaded Gulf channels and ports, rammed ships, and even fired shots at Coast Guard crewmen. The situation became so volatile that the Coast Guard requested assistance from the National Guard.

•July 24, 1989 - Secretary Mospbacher again suspended the rules to allow for a forty-five day "cooling-off period" for angry shrimpers. Instead of pulling TEDs, shrimpers were required to reduce tow times to ninety minutes and to check for captured sea turtles. The temporary rules were to remain in force until September 7.

•July 26, 1989 - The National Wildlife Federation and the Center for Marine Conservation filed suit in U.S. District Court to force the Commerce Secretary to enforce the rules.

•August 3, 1989 - The district court ruled that Secretary Moshbacher had no authority to suspend enforcement of the regulations and gave the Secretary until August 7 to draft interim rules. However, the court did not specify what type of sea turtle preservation measures Moshbacher had to take.

•August 7, 1989 - The temporary rules issued by the Secretary offered the alternative of limiting tow times to 105 minutes instead of pulling a TED. The next day the National Wildlife Federation again filed suit in U.S. District Court to force the Commerce Department to require TEDs.

•August 23, 1989 - U.S. District Court Judge Stanley Harris denied the Federation's request.

•September 5, 1989 - At the instruction of Secretary Moshbacher, new NOAA administrator John Knauss announced that TEDs enforcement would resume beginning September 8. Upon the Knauss statement, NMFS gave notice that it would allow a grace period from the rules. Shrimpers who received a citation between September 8 and September 22 could have their fines rescinded if they could prove to the agency that they installed a TED within fifteen days of the violation. Between September 22 and October 15, they could have their fines reduced if they could show that they installed TEDs "promptly after the citation." Shortly after the NOAA announcement, the White House revealed that it was conducting its own review of the situation.

•October 5, 1989 - During a session on amendments to the Magnuson Fishery Conservation and Management Act, the House Merchant Marine and Fisheries Committee considered an amendment to delay the October 15 implementation date of the TEDs regs. The amendment was defeated by a vote of 14-22; however, the committee adopted an amendment that calls on the President to begin negotiations with foreign nations to promote sea turtle protection internationally.

•October 15, 1989 - Since this date the Coast Guard has been enforcing the TEDs rules as required by federal law. So far compliance has been reported as "excellent" by NMFS and the Coast Guard. An October 18 release from NMFS reported that 320 of the 354 vessels boarded nationally between September 8 and September 22 had TEDs installed. Between October 15 and November 6 NMFS and the Coast Guard reported 35 TED citations. However, these figures may be misleading because they include the East Coast, where compliance has always been good. Most shrimpers working off of the Mississippi Gulf Coast report that for the time being they are taking their chances and going without TEDs. Part of the reason for this may be that in the later part of the fall season, Mississippi Gulf shrimpers fish inshore waters, where TEDs are not yet required. Also, when completely phased

in, the rules call for TEDs use from March 1 to December 1, so many shrimpers may feel they can make it through one more season without a TED.

CONCLUSION

It is safe to say that the TEDs situation has not been handled in the best possible manner, and that confusion over their on-again, off-again status has only added to the problems. Groups on both sides of the issue are frustrated. The shrimpers feel that they are being forced by the federal government to bear the burden of sea turtle conservation to a degree that is out of proportion to their actual role in the demise of sea turtle populations. On the other hand, the conservation community resents the tactics being employed by the shrimpers to avoid using TEDs. They stress that TEDs requirements are unequivocally the law, mandated in no uncertain terms by the Endangered Species Act. Consequently, in addition to the particulars of protecting sea turtles, many conservationists consider the issue an important proving ground for the strength of the Endangered Species Act.

The TEDs saga is a classic example of the conflict that can occur when interests involved in the use of ocean resources collide. Could the situation have been handled better? Probably. However, it is possible that because of the complexity of ocean management, controversies of this nature cannot be avoided. Nevertheless, it is up to lawmakers and the citizens who support them to make their best effort to try. □

Laura Howorth

LAGNIAPPE

A Little Something Extra

Our congratulations to M. Casey Jarman, former Mississippi-Alabama Sea Grant Legal Program Director and Editor of WATER LOG, for being named outstanding teacher of the year at the University of Hawaii Law School.

The cruiseship *Pride of Mississippi* recently moved its operations from Gulfport, Mississippi to Galveston, Texas. The move comes just six months after Mississippi became the first state to pass legislation that expressly allows gambling aboard cruiseships that operate within state shipping channels (See Lagniappe, WATER LOG Vol. 9, No. 1). Last summer Texas passed its own gambling ship legislation, thereby paving the way for the cruiseship's departure. Owners of the 503 foot cruiseship indicated that they would replace the *Pride of Mississippi* with a smaller vessel sometime in the spring. Any replacement vessel would have to be at least 300 feet long to be able to operate its casino within state waters under the recently enacted Mississippi Legislation.

The Minerals Management Service proposed an outer continental shelf oil and gas lease sale for 5,657 unleased blocks covering about 30.3 million acres offshore Louisiana, Mississippi and Alabama. Scheduled for March 1990, the proposed area to be offered is located from 3 to 220 miles offshore in water depths of 4 to 3,200 meters.

The Woods Hole Oceanographic Institution is accepting applications for its 1990-91 Marine Policy and Ocean Management Fellowship Program. Qualified individuals in the social sciences are invited to apply their expertise to the "economic, legal and political issues that arise from uses of the world's oceans." Topics of special interest include: the quality of marine habitat and reserves, marine biological diversity, the impacts of sea-level change, and industrial organization of advanced marine technologies. Details on the program may be obtained from Dean of Graduate Studies, Education Office, Clark Laboratory, Woods Hole Oceanographic Institution, Woods Hole, MA 02543. Telephone: (508) 548-1400.