

Recent Developments

Recent Developments in the Law of the Sea: A Synopsis

INTRODUCTION

Each year, as an integral part of its symposium on the law of the sea, the *San Diego Law Review* presents a synopsis of the major events in the field. This year's precis covers the period from January 1, 1974, to December 31, 1974. The scope of the article prohibits extended scrutiny of the subject matter. However, the manner in which it is presented exposes the reader to a broad spectrum of recent events and allows familiarization with increasingly important facets of a rapidly expanding area. As an added ingredient, this year's synopsis contains coverage of the United Nations Conference on the Law of the Sea. The conference was held in Caracas, Venezuela during 1974 and although its immediate effects may not be substantial, its potential for implementation of multifarious long-range developments remains unimpaired. The principal sources of information included the *Congressional Record*, the *Environmental Reporter*, *International Legal Materials*, the *Los Angeles Times*, the *New York Times*, the *United Nations Chronicle*, and the *United States Code Congressional and Administrative News*.

CARACAS

On June 20, 1974, the ten-week working sessions of the third United Nations Conference on the Law of the Sea began in Caracas, Venezuela. Some 5,000 governmental delegates and observers representing most of the world's populace attended, bringing with them a variety of multinational strategic and economic hopes for the use of the world's oceans. Among the 100 items on the conference agenda, the participants faced the complicated issue of ownership of the oceans and the use of their vast biological and mineral resources.

Most of the conference's disputes focused on issues involving the conflicting interests of developing and developed nations, landlocked and coastal countries, as well as environmental and economic groups. Out of these confrontations came divergent positions and a wealth of ideas which formed a basis for further negotiations and compromise on issues of freedom of navigation, fishing, pollution control, scientific research, the extent of coastal hegemony, and the distribution of seabed resources.

Although the conference did not produce a formal treaty, most nations were confident that a comprehensive document based upon the Caracas discussions would be obtainable by the end of 1975. In order to keep the spirit of Caracas alive, the delegates have scheduled further talks for Geneva in March, 1975 and tentatively in Vienna later in the year.

Of the specific issues debated, none was more divisive than the proposals for exploitation of the deep seabed minerals. Rich and poor nations advanced rival programs for an agency to administer the mining of huge deposits of nickel, copper and cobalt contained in ferromanganese nodules at ocean depths of about 16,000 feet.

These small mineral-bearing rocks, believed to amount to several billion tons, are a principal economic prize of the conference. Companies from the United States, Japan, France, and West Germany have already invested some \$1.5 billion to develop sophisticated nodule mining techniques. The most spirited debate centered around the structure and power of any international agency proposed to supervise the underwater mining. The two nations with the heaviest economic investment, Japan and the United States, proposed that a weak and loosely structured international authority be established with power to impartially grant mining licenses and concessions to qualified bidders.

On the other hand, many of the smaller underdeveloped nations feared that the major powers would exploit and exhaust the under-

sea resources, which, in their minds, represent a part of mankind's collective wealth not belonging to any particular nation. To insure that the ocean's mineral wealth is equally distributed, these smaller nations countered with a proposal for a strong United Nations authority with broad powers to directly exploit the resources rather than merely issue licenses to multinational firms. Such an agency, they hope, would eventually be able to earn enough to provide development aid to poorer nations.

With regard to ocean pollution, the Caracas session broadened the basis of understanding the difficult problems involved in drafting new legal obligations for the protection of the marine environment. The texts of the conference provided for global and regional cooperation, and technical assistance in curing and preventing marine pollution. The basic political issues that remain to be resolved concern the jurisdiction of port and coastal States with respect to vessel-source pollution and the feasibility of varying obligations for states depending upon their stage of economic development. In any event, there is some indication that all States were prepared to re-evaluate their environmental policies in detail.

On the scientific research issue, the various proposals were reduced to four basic alternatives regarding scientific research within the areas of national jurisdiction. Some States advocated a procedure requiring coastal nation consent for all research. Others supported a modified consent procedure. The United States proposed a regimen with the burden on the researching nation to notify the coastal State to provide for its participation and to insure sharing and interpretation of the data. Other States proposed complete freedom of scientific research.

The inclusion in the proposed treaty of a 12-mile territorial sea and a 200-mile economic zone was all but formally agreed, subject to acceptable resolution of other issues, including unimpeded transit of straits. Accordingly, expanded coastal State jurisdiction over living and non-living resources appears certain as part of the comprehensive treaty.

The extension of coastal hegemony is good news to fishermen of the eastern United States and a disappointment to west coast fishermen. The tuna fleets off the western United States will be forced to make new arrangements for fishing near many South American

countries. Fishermen on the east coast will now be able to exclude foreign ships from the rich fish beds off the New England coast.

John R. Stevenson, the United States ambassador to the conference, looks with optimism on the possibility of obtaining a comprehensive treaty governing the oceans which will, for the first time in history, provide structure and purpose to man's development of earth's last frontier.

CONSERVATION

United Nations Earthwatch Monitoring System Approved: During its March 11-22, 1974, meeting in Nairobi, the governing council of the United Nations Environment Program approved an Earthwatch Monitoring System. The purpose of the system is to furnish not only early warnings of environmental hazards, but also the knowledge and technology required to deal with them. The various functions of the system include human health and natural disaster warnings, evaluation of the significance and ramifications of pollution in the air, oceans, and biological systems, the appraisal of the consequences of environmental changes and the review of the problems of land and water use. The various scientific observations would be made by a system of networks comprised of global, regional, and local monitoring stations.¹

Soviet and Japanese Refusal to Honor Whaling Quotas Prompts Audubon Boycott: On May 7, 1974, the National Audubon Society urged its members and the entire public to boycott Japanese and Soviet products due to those nations' refusal to abide by the whaling quotas established by the International Whaling Commission. The quotas resulted from the passage by the Commission in 1973 of limitations on the killing of three particular species of whales. The only two votes in opposition were cast by the Soviet Union and Japan. Later, Japan announced that it would not honor any of the three limitations, as the Soviet Union followed by refusing to obey two of them.²

Further, Elvis J. Stahr, Audubon Society President, said that all Society publications will no longer carry advertisements for Japanese and Soviet merchandise and indicated that it will take additional measures in the future.³

Selective Whaling Moratorium Approved: On June 25, 1974, the International Whaling Commission in London approved measures

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1. 4 ENV. REP. 2106 (April 19, 1974).
 2. 5 ENV. REP. 92 (May 17, 1974).
 3. *Id.*

for a selective moratorium on endangered species of whales. After the U.S. Proposal of a 10-year moratorium on commercial whaling had failed to be approved for a third year, the selective moratorium was passed by a vote of 13 to 2. Significantly, the dissenting votes were cast by Japan and the Soviet Union, which together account for approximately 85 percent of the annual whale catch.⁴

Even though the Commission is without enforcement powers, Dr. Robert M. White, Administrator of the National Oceanic and Atmospheric Administration and leader of the U.S. delegation, was nevertheless optimistic by the passage of the selective moratorium. He noted that it was a major gain in the attempt to control the declining whale stocks. Further, he indicated that the measures constituted an open, rather than a timebound, moratorium.⁵

It should be noted that the four species of whales nearing extinction are presently fully protected. They include the blue, gray, humpback and right whale species. Further, the fin, sperm, sei and minke species are presently hunted under annual quotas.⁶

Plankton Explored As Food Source: In August, 1974, it was reported that a number of Japanese fishing companies have been studying the feasibility of exploiting ocean plankton as a substitute for whales as a source of food. This study is a result of the demands by conservationists that the whaling industry be terminated since the systematic killing of whales threatens the entire stock within the near future.

Plankton are plants and tiny animal organisms which exist in most of the world's oceans and seas at depths penetrable by sunlight. They are the food source of whales and other species of fish. Japanese fishing companies are particularly interested in the shrimp-like plankton that thrive in the Antarctic Ocean. A U.N. fishery survey has estimated that over 200 million tons of plankton assemble in the Antarctic annually. Japanese chemical labs have reported the Antarctic plankton to be rich in Tryptophsm, an amino acid that forms an important nutrient. They claim the basic protein content of this plankton is richer than beef. Problems as yet unsolved involve appropriate catching devices and processing techniques.

4. 5 ENV. REP. 262 (June 28, 1974).

5. *Id.*

6. *Id.*

NMFS Issues Special Porpoise Permits: On October 21, 1974, the National Marine Fisheries Service (NMFS) granted special permits to the U.S. Tuna fleet that will allow the seizing of porpoises "incidental to commercial fishing operations." The issuance of the exemptions was pursuant to the Marine Mammal Protection Act of 1972 which forbids the taking of marine mammals by any individual unless given permission by the NMFS.

However, the commercial tuna fishermen are, nevertheless, bound by certain restrictions promulgated in order to decrease the loss of porpoises while fishing yellowfin tuna. Among such mandatory restrictions on all U.S. tunaboats is the Medina panel of netting that enables a captured propoise the opportunity to make an easier escape. Further, each fishing vessel is required to follow a "backing down" procedure which allows propoises caught in the net to escape. Even though the enforcement of these procedures for the protection of porpoises are primarily on the "honor system," there does exist a system for violation reporting. With regard to foreign fishing fleets, the law provides that if it can be established that foreign fishermen have failed to comply with these protective procedures, then the NMFS can terminate the U.S. importation of that particular fleet's tuna.

Eastern Pacific Ocean Tuna Quota for 1975 Unchanged: On November 5, 1974, Dr. James Joseph, director of the Inter-American Tropical Tuna Conservation Commission (IATTC), announced that the 1975 tuna fishing quota for the Eastern Pacific Ocean has been set at the same level as that of 1974. During a meeting in Ottawa, Canada, the eight-nation IATTC set the limit at 175,000 tons of yellowfin tuna with provisions for increasing the limit to 195,000 tons if advisable. However, due to scientific concern over the possibility that the conservation zone is threatened by overfishing, all fishing could be halted March 1, 1975, if the IATTC at its scheduled, extraordinary meeting in La Jolla, California, determines that the zone has been overfished. Joseph indicated that if the IATTC considers the zone in danger of having the yellowfin stocks fished down to its minimum, the area could be closed for the remainder of 1975 regardless of the quota. This alarm was caused by the presence in the 1973 and 1974 yellowfin catches of a higher-than-average number of small fish. The IATTC scientific staff is trying to determine whether the presence of these younger fish was due to an unusually large spawning in 1971 and 1972 or an unusually high availability in 1973 and 1974.

FISHING

Ecuador Increases Tuna Fees: Ecuador has more than tripled the

charge for tuna fishing licenses and doubled the registration fee for foreign tunaboats, the U.S. National Marine Fisheries Service has said. A license to look for the migratory tuna within 200 miles of the coasts of Ecuador has risen in price from \$22,000 in February, 1974, to \$77,000 in April, 1974. The registration fee has been increased from \$350 to \$700 for each tunaboat.

United States tuna fishermen are discouraged from purchasing the licenses by the U.S. government because it would indicate recognition of Ecuador's claim to a 200-mile coastal limit. Currently, the federal government reimburses the fishermen for any penalties involved in seizures of the tunaboats.

World Court Backs British Fishing Off Iceland: On July 25, 1974, the World Court in The Hague ruled that Iceland's decision to extend exclusive fishing rights to 50 nautical miles from the coast could not apply to Britain. The Court reached its decision by a 10-4 majority after having heard arguments by Britain and West Germany, who had filed suits against Iceland's decision. Iceland refused to even plead her case, maintaining that the Court could not properly exercise jurisdiction. The Court found that Iceland is not entitled, unilaterally, to exclude British fishing vessels from areas between the 12-mile and 50-mile limits, or unilaterally to impose restrictions on their activities in such areas.

Foreign Fishing Off the United States Put Under Tight Control: On September 5, 1974, John N. Moore, Chairman of the National Security Council Inter-Agency Task Force on the Law of the Sea, reported to the Senate Foreign Relations Committee that the U.S. had imposed tighter controls on foreign fishing over the continental shelf. Effective December 5, 1974, the new regulations provide for more liberal boarding procedures in order to examine vessels fishing with trawling or bottom gear likely to catch lobsters and other continental-shelf species. In essence, the new measures will enable the Coast Guard to board any vessel which is bottom trawling on the U.S. continental shelf and to arrest offending crews. Further, nations with fishing fleets operating over the U.S. continental shelf will be required to consummate bilateral agreements with the U.S. for the modification of gear and the implementation of other practices for the protection of continental shelf resources.

As a result of the imposition of these controls, the U.S. expects an increase in ocean incidents along the U.S. continental

shelf, since these measures constitute a prohibition of foreigners from catching lobsters, crabs, and other continental shelf creatures. The purpose behind this prohibition is to terminate the exploitation of continental shelf food resources through bottom trawling by the fishing fleets of the Soviet Union, Japan, West and East Germany, South Korea, Bulgaria, Spain and to a lesser extent Romania, Italy and France.

Tunaboat Seizure Decline Explained: On November 2, 1974, an official of the American Tunaboat Association explained that the absence of tunaboat seizures by Ecuador and Peru since February 10, 1973, is not the result of any known policy changes. A.T.A. Executive Vice President Ed Silva indicated that due to the lack of tuna off the South American coast, the U.S. vessels have not been fishing in that vicinity.

Since 1961, 203 U.S. tunaboats have been seized and fined in excess of \$6 million on charges stemming from their fishing without a license. During January and the first ten days of February, 1973, Ecuador and Peru seized 28 U.S. vessels off their shores and fined them in total over \$1.2 million. However, Silva stated that there exists no indication that Ecuador or Peru have softened their claims of a 200-mile coastal zone.⁷

Dr. R. Michael Laurs, a National Marine Fisheries Services research oceanographer, explained that the migration of the tuna from the South American Coast was caused by the strengthening of the Southeast trade winds which created current changes that brought about upwelling. Upwelling is a condition whereby the deeper, colder waters of the ocean are forced toward the surface. Hence, as the tuna migrated, they ran into these colder waters and were forced to alter their direction in order to seek out warmer currents.

With regard to the Peruvian anchovy fishery which had been negligible in the early 1970's because of the presence of warm coastal waters, the strengthening of the Peruvian current has brought in colder waters since late 1973 and throughout 1974. This condition has thus aided the restoration to some extent of the overall population of the rich Peruvian anchovy stocks.

200-Mile Offshore Fishing Zone Bill Clears Senate But Faces Probable Doom: On December 12, 1974, the Senate voted to extend

7. The validity of Silva's comment is evident for on December 17, 1974, Ecuador seized a U.S. tunaboat, the *Day Island*. After purchasing a \$24,000 license to fish within 200 miles of the Ecuadorean coast, the vessel was released the following day.

United States fishing rights from 12 to 200 miles offshore,⁸ but the bill is apparently doomed in the House of Representatives. Not only is the Ford administration in opposition to it, but also Representative John D. Dingell, chairman of the House Fisheries subcommittee, has indicated that he would not call it up for action during 1974.

Senator Warren G. Magnuson, chairman of the Senate Commerce Committee and sponsor of the bill, argued that such legislation is urgently needed to protect seriously depleted coastal fish stocks. The proposal has also been strongly supported by New England and West Coast fishermen dependent upon coastal species of fish. They face stiff competition from Russian and Japanese fishing vessels using highly sophisticated equipment in waters less than 200 miles from United States coastlines.

President Ford, however, contends that extension of the present 12-mile fishing zone could damage relations with other countries. The measure is also opposed by many tuna and shrimp fishermen who fear further retaliation against their own operations in waters off the shores of other countries. A large percentage of their catch is made off foreign shores.

The bill would extend United States fishing jurisdiction from the present 12 miles to 200 nautical miles until the Law of the Sea Conference produces an agreement. It would also provide payment of compensation to United States fishermen whose gear was damaged or lost in incidents involving foreign fleets.

Oregon Votes Extension of Jurisdiction: Oregon extended its jurisdiction over coastal fishing activities to 50 miles offshore on February 12, 1974. The law took effect when the state's House and Senate voted to override Governor McCall's veto of a 1973 bill establishing a 50-mile fisheries conservation zone. The measure was initiated by coastal legislators who believe that foreign fishing fleets were threatening to deplete Oregon's offshore fish resources. The means of enforcing the law have not been decided upon.

Japan and the U.S. Initial Fishing Agreement: On December 13, 1974, Japan and the U.S. initialled a 1975-76 fishing agreement that was the product of the biennial fishery talks that ended on Decem-

8. S. 1988, 93d Cong., 2d Sess. (1974).

ber 7, 1974. The agreement was initialled by chief American delegate Thomas A. Clingor and Hiroshi Fukada, deputy director-general of the Foreign Ministry's American affairs bureau. The accord provides for a Japanese cut in annual fishing catch in the East Bering Sea and the Northeast Pacific by 25 percent to 1.5 million tons.

*Foreign Flags Tempt U.S. Tuna Fleet:*⁹ On December 16, 1974, a group of tunaboat captains and industry leaders held a press conference to attract attention to the international fishing situation. Their message was that the entire U.S. tuna fleet may be forced to defect to other nations within two years unless the U.S. Government takes the required actions to enforce international conservation regulations on foreign fishermen.

Citing that at least 22 former U.S. tuna seiners and six new U.S.-built tunaboats have been registered under foreign flags, the group indicated that the whole fleet may soon be under foreign flag in Latin America since the U.S. is the only member nation of the Inter-American Tropical Tuna Commission which has established a system of enforcement and strenuously applied it. Noting several violations of the 5-million-square-mile IATTC conservation zone as well as the presence of the 12 competing foreign fleets fishing in the eastern Pacific Ocean without the burden of enforcement machinery, August Felando, general manager of the American Tunaboat Association, said that the U.S. tuna fishing industry "appears to be doomed to failure" due to the apathy of the Commerce and State Departments.

It should be noted that under the IATTC regulations, the U.S. Government can either terminate enforcement of the IATTC restrictions against U.S. fishermen or place an embargo on the importation of fish caught by offending nations. The government has not pursued either course. Thus, U.S. fishermen presently are regulated by an enforcement machinery that is not only unique, but also includes stiff fines, catch forfeiture, and constant, close radio check and aerial surveillance by the U.S. Coast Guard.

POLLUTION AND POLLUTION CONTROL

INTERNATIONAL

New Technique Estimates Size of Oil Spills: It has been thought that when oil spills on a river, harbor, or bay, it spreads evenly and consistently in all directions. However, the Naval Research Lab-

9. See *Recent Developments in the Law of the Sea V: A Synopsis*, 11 SAN DIEGO L. REV. 691, 699 (1974).

oratory (NRL) has discovered that this is not true. In research sponsored by the Coast Guard, NRL scientists found that most of the volume of oil in any slick remains in thick globs that occupy less than 10 percent of the surface covered by the spill. It has been extremely difficult, because of this "camouflage effect," to assess the real threat of an oil spill and how best to combat and clean it.

NRL scientists discovered the trait while pursuing development of their multifrequency passive microwave technique for measuring oil slicks at sea. They believe that it is now possible, with the new technique, to fly above a developing spill at sea and obtain oil thickness and volume data on all-weather, day-or-night and real-time basis. The NRL system would provide detailed continuous documentation of the oil location and volume. Knowledge of the volume would be essential for litigation and damage claims resulting from major spills, as well as for assessing the impact on marine life and environment.

Baltic Sea Pollution Pact Signed: Ministers from all seven nations bordering the Baltic Sea signed a treaty on March 22, 1974, banning solid waste dumping, and providing strict controls on DDT and mercury pollution. Countries bordering the Baltic have been dumping solid wastes, chemicals, and oils into it for years. The treaty, the first of its kind in the world, was signed by ministers from Denmark, Finland, Poland, Sweden, East Germany, West Germany, and the Soviet Union.

Sea Proves Poor Place for Dumping: Most of the proposals to dump garbage and other wastes on the ocean floor have presumed that the discards will eventually be consumed by marine life. The results of a recent experiment on the ocean bottom off San Diego, however, suggest that dumping wastes into deep water would be like putting an accumulating mountain of garbage into cold storage.

Dr. Robert Hessler, associate professor of oceanography at Scripps Institution of Oceanography, together with Dr. Kenneth L. Smith, Jr. of Woods Hole Oceanographic Institution, conducted experiments 14 miles west of Coronado, California. Using a tractor-like vehicle called RUM (Remote Underwater Manipulator), the scientists trapped hagfish and rattail fish in devices attached to the vehicle at depths of more than 3,500 feet. Holding the fish for periods up to three and one-half hours, the scientists measured the chang-

ing content of oxygen in the water within a box in which the fish were confined. Thus, they were able to determine the rates at which the deep-water fish were using oxygen, a measure of their metabolic rate. They found that the fish had respiration rates up to two times lower than those of comparable shallow-water species. The results tend to confirm the findings of other investigators, namely that all kinds of sea-life in the deep ocean have markedly slower rates of metabolism and, therefore, decomposition of organic matter at such depths takes place slowly.

United States and West Germany Sign Environmental Control Pact: In early May, 1974, the U.S. and West Germany entered into a five-year accord under which information relating to environmental control will be exchanged. The agreement provides for cooperative projects, including environmental quality management, pollution control, training, exchange of data, and joint research.

United States, Canada Adopt Pollution Cleanup Agreement: On June 20, 1974, the U.S. and Canada signed an agreement that ensured in the future a coordinated effort in the cleanup of spilled oil and other pollutants which endanger the waters and coastal areas of the cited countries. The joint contingency plan provides that the on-scene commander of cleanup operations will be furnished by the country where the spill occurs, as the other country will provide a deputy. The cleanup personnel will be representative of both countries. The scheme will be activated whenever pollution endangers the waters and coastal areas of both countries, or where upon agreement a pollution disaster is severe enough to warrant application.¹⁰

Oil Spills Traced By Fingerprints: On August 11, 1974, it was announced that the Stanford Research Institute (SRI) was developing a computerized method for tracing oil spills back to their source for the U.S. Coast Guard. Designated as "oil fingerprinting," SRI indicates that it is as reliable for the identification of polluters as fingerprints are for people since no two oil samples are alike. SRI uses a device called a Field Ionization Mass Spectrometer, which allows a specialist to determine the molecular weight profile of any oil sample.

DOMESTIC-FEDERAL

Maritime Commission Adopts Stricter Oil Pollution Cleanup Regulations: On March 12, 1974, the Federal Maritime Commission (FMC) adopted amendments to the regulation on financial respon-

10. 5 ENV. REP. 259 (June 28, 1974).

sibility for oil pollution cleanup.¹¹ The measures had been proposed on January 17, 1974, by the FMC.¹² The amendments add a new subsection 542.10 to Title 46, Part 542 of the Code of Federal Regulations. It provides for the levying of a \$10,000 fine against any vessel owner or operator who fails to comply with the enforcement provisions of the Federal Water Pollution Act.¹³ Further, it denies violators clearance from or entry into U.S. ports.¹⁴

Waste Volume Disposed in Oceans Exceeds Estimation: On May 22, 1974, John R. Quarles, Jr., E.P.A. Deputy Administrator, announced that the amount of waste presently dumped in the oceans is far greater than the estimates made a few years ago. Quarles made this statement before the House Merchant Marine Subcommittees on Oceanography and the Environment. He indicated that there was a definite increase in sewage sludge; however, he was uncertain of whether there had been an increase in industrial waste.¹⁵

At the hearing, Quarles cited the desirability for limiting all ocean dumping "to the extent feasible" and the preference of having a limited number of monitored dumping sites, since the outright proscription of ocean dumping would probably lead to disposal in waters of a more dangerous location. He further noted that during the first year of the E.P.A. ocean dumping permit program, the Agency had established criteria for permit application evaluation, as well as prepared procedural regulations. As of the date of testimony, the E.P.A. had selected 110 interim disposal sites and had issued 55 permits.¹⁶

New View of Oil Spills Places Burden on Municipalities: In June, 1974, a new legal interpretation of the Federal Water Pollution Control Act was announced. Under this view, municipalities would be responsible for oil spills coming from their storm drains regardless where the spills originate. Civil penalties of up to \$5,000 a spill can be levied and \$10,000 in criminal fines can be assessed for failing to report a spill. According to a high level Coast Guard official, the whole tenor of the Federal Water Pollution Control Act is to eliminate any relationship to the concept of fault. Apparently, the removal of the word "knowingly" from section 1321 of the Act

11. 4 ENV. REP. 1894 (Mar. 15, 1974).

12. 4 ENV. REP. 1594 (Jan. 25, 1974).

13. 46 C.F.R. § 542.10(a); 4 ENV. REP. 1598, 1599 (Jan. 25, 1974).

14. 46 C.F.R. § 542.10(c); 4 ENV. REP. 1598, 1599 (Jan. 25, 1974).

15. 5 ENV. REP. 144 (May 31, 1974).

16. *Id.* at 144-45.

paved the way for the no fault concept with respect to oil discharges.

Greenwich, Connecticut, was notified on May 16, 1974, that it would be assessed \$100 for an oil spill which originated from an unknown source unless the town could provide the name of the actual culprit. Town officials have notified the Coast Guard that they will protest at the hearing against enforcement of any penalties.

Suits Filed Charging Firms With Polluting San Francisco Bay: On July 9, 1974, the Department of Justice filed suits in the U.S. District Court for the Northern District of California charging four California firms with polluting San Francisco Bay and its tributaries. The defendants included the Allied Chemical Corporation (Pittsburgh), General American Transportation Corporation (Oakland), Imperial West Chemical (Antioch) and Willard Schoenfeld, Inc. (Redwood City). The federal complaints alleged that Allied Chemical had dumped acid waste into Suisun Bay in April, 1973, and that General American had disposed of alkaline waste into San Francisco Bay in February, 1973. Imperial West and Schoenfeld were charged with dumping acid industrial waste in the San Joaquin River in April, 1973, and into Red Wood Creek in 1973, respectively.¹⁷

Navy Probes Weapons for Ecology War: In August, 1974, it was announced that the Navy, in their Civil Engineering laboratory at Port Hueneme, California, is conducting experiments with bacteria capable of consuming petroleum. The Navy has discovered 62 species of bacteria which consume different types of oil. The objective of this research is to produce communities of trillions of these bacteria to combat ocean oil spills. The bacteria, after consuming up to ten times their weight in oil, die, and then are the source of nutrients for other marine life. Capable of being freeze-dried and used as needed,⁴ one pound of freeze-dried bacteria contains about seven trillion bacteria. The life span of the bacteria is only 72 hours; however, in that time they reproduce eight to ten times. It is hoped that the bacteria can be used to mop up the residue of oil spills after mechanical devices have cleaned up as much as possible.

The oil-consuming bacteria were discovered by scientists several years ago when they wondered what was happening to the 50 barrels a day that leaked out of the natural sea floor fissures in the Santa Barbara Channel. The leaks had been occurring long before men came to California, and yet there had been no evidence of oil deposits on the beaches.

17. 5 ENV. REP. 370 (July 19, 1974).

Artificial Sea Utilized in Fight Against Oil Spills: On October 2, 1974, John R. Quarles, Jr., Deputy Administrator of the E.P.A., dedicated a 2.6 million gallon test tank on Raritan Bay, Leonardo, New Jersey. Citing the occurrence of as many as 14,000 potentially damaging spills a year, Quarles stressed in his dedication speech the necessity of seeking improved technology and cleanup procedures in order to prevent and/or control this drastic number of oil spills. Described as the "largest and among the most advanced of its kind," this artificial sea is an attempt by the E.P.A. to secure more advanced scientific data for the combating of oil spills, by showing, in essence, what can be employed to efficiently do the job. Costing approximately \$3 million, the tank is 670 feet long by 65 feet wide and eight feet deep. It can generate successive or wandering waves up to two feet high and currents to six knots, sufficient to duplicate the majority of marine environments short of the open ocean.

Chemical Waste Burned Off U.S. Coast: On October 29, 1974, the Shell Oil Company announced that the Dutch incinerator ship, *Vulcanus*, has successfully burned approximately 4,200 metric tons of poisonous chemical wastes in the Gulf of Mexico. During a nine-day period, the industrial waste was disposed of at a site about 130 miles south of Galveston, Texas. Authorized by the E.P.A. over the protest of Louisiana and Texas officials, the incineration marked the first time that wastes have been burned aboard a ship off the U.S. coast. Predicated on the outcome of the E.P.A. studies to determine whether the test burning involved any environmental hazards and harmful effects to marine life, this operation will probably set a precedent on whether such incineration will occur in the future off U.S. coasts. Initial findings by Shell scientists were favorable, as the incineration averaged above 99.9 percent, with no reported change in the acidity of the water.

Illegal Dumping Charged In Gulf Of Mexico: On November 29, 1974, the Justice Department filed a criminal suit against Exxon Corporation and Texaco, Inc. in the U.S. District Court for the Eastern District of Louisiana (*U.S. v. Exxon*, Case No. 74-572, Section-H). The criminal charges allege illegal dumping of oil wastes into the Gulf of Mexico. In particular, Texaco was indicted on 12 counts of dumping in violation of the Outer Continental Shelf Lands Act, each of which is punishable by a maximum fine of \$2,000.¹⁸

18. 5 ENV. REP. 1236 (Dec. 6, 1974).

The Sludge: Nature Fights Back: The story from New York has the sound of science fiction and the smell of doom. A growing, manmade "dead sea" of waste matter has seemingly risen from the dead off the Atlantic Coast and is moving to rejoin the civilization which created it. At the center of this water contamination, no ocean creatures survive. On its fringes, diseased and rotten fish have been found. Within it, coliform bacteria and the hepatitis and encephalitis viruses thrive.

How could something like this occur in the modern, technological-ly-advanced world of today? It began quite innocently. About four decades ago New York and other nearby cities starting dumping sludge from their sewage plants 12 miles offshore, a distance thought to be sufficiently far removed so that the environment would not be polluted. The dumping continued at a rate of 5 million cubic yards annually. This was done in the belief that the ocean could absorb or recycle the waste matter. For years, that is more or less what happened; or at least the toxic, foul-smelling dump stayed contained. It covered more than 20 square miles of the seabed and created a wasteland for sealife, but presented no hazard to humans. Suddenly, about five years ago, it was discovered that the seemingly stable mass had begun to move toward the beaches of Long Island. Silently, steadily, inexorably, that movement continues. Four years ago the forward edge of the mass was approximately 8 miles offshore. Today it may be no more than 2 miles away.

Scientists have offered different opinions on the question of whether the ooze will continue to progress toward the Long Island area. Some are speculating that the sludge mass will return to its old position before it reaches the shore. Others think it will begin spreading over the beaches within two years and believe that there is nothing which can be done at this time to delay or prevent its arrival.

1969 Santa Barbara Oil Spill Litigation Developments: On January 21, 1974, the U.S. Supreme Court declined to review *Oppen v. Aetna Insurance*.¹⁹ In that decision, the U.S. Court of Appeals for the Ninth Circuit held that neither federal maritime law nor California public nuisance law enabled private pleasure boat owners to recover damages for interference with navigational rights in the Santa Barbara Channel caused by the 1969 oil spill.²⁰

19. See *Recent Developments in the Law of the Sea V: A Synopsis*, 11 SAN DIEGO L. REV. 691, 704 (1974).

20. 4 ENV. REP. 1587 (Jan. 25, 1974).

On June 7, 1974, the U.S. Court of Appeals for the Ninth Circuit held in *Union Oil v. Oppen* that a loss of profits to commercial fishermen followed the 1969 Santa Barbara oil spill establishes a legally cognizable injury for which defendants may be held liable.²¹ The appeal concerned a stipulation within which the defendant oil companies agreed to compensate those who suffered "legally compensable damages arising from a legally cognizable injury" caused by the spill, "provided however, that the payment assumed hereby will not exceed such amount and such claim as said defendants . . . would be responsible for in the case of negligence."²² Arguing that neither long-term ecological damage nor loss of economic advantage is compensable under the law, the defendants attempted to delete any element of damages comprised of a loss of profits due to the diminution of the aquatic life in the Santa Barbara Channel.²³

In affirming the district court's decision, Judge Joseph T. Sneed responded to the issue of whether the defendants could have reasonably foreseen the ramifications of their negligence upon the aquatic life and the business livelihood of the commercial fishermen, by stating:

To assert that the defendants were unable to foresee that negligent conduct resulting in a substantial oil spill could diminish aquatic life and thus injure the plaintiffs is to suppose a degree of general ignorance of the effects of oil pollution not in accord with good sense.²⁴

On July 23, 1974, a \$9 million out-of-court settlement was reached in a suit brought against four major oil companies for damages caused by the Santa Barbara oil spill. Those who participated in the litigation as plaintiffs included the State of California, the City and County of Santa Barbara, and the City of Carpinteria. The oil companies involved were Gulf Oil Corporation, Mobil Oil Corporation, Texaco and Union Oil Company. The settlement provided that the cited companies agreed to pay \$4.5 million in damages to the State, \$4 million to the City of Santa Barbara, \$775,000 to the County of Santa Barbara, and \$200,000 to the City of Carpinteria.²⁵

21. 5 ENV. REP. 248 (June 28, 1974).

22. 6 ERC 1748, 1749 (1974).

23. 5 ENV. REP. 148 (June 28, 1974).

24. 6 ERC 1748, 1756 (1974).

25. 5 ENV. REP. 400 (July 26, 1974).

It should be noted that the U.S. Government was originally named a defendant in this suit. However, the defendant oil companies agreed on April 9, 1974, to represent the U.S. in litigation involving this disaster, as well as to assume any pecuniary damages imposed against the U.S. in this particular suit.²⁶ Consequently, this settlement will result in dismissal of the action pending against the government.²⁷

Alaska Receives Compensation from Shipping Firm for Ecological Harm Caused by Oil Spill: The Alaska Department of Environmental Conservation collected \$25,000 in compensation from the Chevron Shipping Company in satisfaction for damages to the environment caused by a March, 1973 oil spill. The incident took place when the tanker *Hillyer Brown* ran aground near Gold Bay and leaked an estimated 2,000 barrels of diesel oil. In order to check similar spills in the future, the Company agreed to have its tankers travel through Gold Bay only during daylight hours, as well as to schedule oil shipments in avoidance of periods of peak migratory waterfowl populations.²⁸

California Adopts Strict Policy for Protection of Bay, Estuary Waters: On May 17, 1974, the California Water Resources Control Board announced the adoption of a policy forbidding the discharge of harmful pollutants into the bays and estuaries of California. In essence, the policy constitutes a prohibition of the discharge of garbage, dirt, petroleum and toxic materials into the bays and estuaries. Further, with regard to waste water, the policy institutes strict regulations on discharges into San Francisco Bay, bans all new discharges into the bays and estuaries of California, and provides that all existing discharges must be phased out.²⁹

Illegal Discharge of Ammonia into Alaska's Cook Inlet Brings Substantial Fine: On July 30, 1974, Collier Carbon and Chemical Corporation, a subsidiary of Union Oil Company of California, agreed to pay Alaska \$429,000 in civil and criminal fines for its excessive discharge of ammonia into Cook Inlet in violation of its state waste material discharge permit. Alaska had charged the firm with not only violating the daily discharge limitation by approximately 19 percent, but also willfully submitting false monthly discharge reports.³⁰ Under the provisions of the settlement, Collier Carbon agreed to compensate Alaska with \$300,000 in full settlement of the

26. 4 ENV. REP. 2090 (April 19, 1974).

27. 5 ENV. REP. 400 (July 26, 1974).

28. 4 ENV. REP. 1655 (Feb. 9, 1974).

29. 5 ENV. REP. 235 (June 21, 1974).

30. 5 ENV. REP. 479 (Aug. 16, 1974).

state's civil damages; however, it stipulated that the settlement was not an admission to any of the state's allegations. Further, in regard to the criminal charges, the firm agreed to pay a total criminal penalty of \$129,000 comprised of the payment of fines of \$1,000 for each of 110 counts of violating its permit and each of 19 counts of false reporting.³¹

Florida Amends Its Oil Spill Prevention and Pollution Control Act: Florida's Department of Natural Resources approved various amendments to its Oil Spill Prevention and Pollution Control Act on August 20, 1974. Among the newly enacted regulations is the requirement that potential oil polluters prepare contingency plans for cleanup operations which demonstrate that they have sufficient equipment and manpower. Further, the regulations provide procedures for determining civil penalties for oil spills that take into consideration the offender's previous oil spill record, as well as the financial impact of it upon him. Also, the enactments create an arbitration process for disputes over damage claims. With regard to financial liability, the new amendments delete the controversial unlimited liability provision and replace it with the federal maximums of \$14 million or \$100 per registered gross ton. Finally, the regulations create a fund for cleanup operations of spills from unknown sources which is financed by a two cents per barrel fee on transfer operations. Another purpose of the fund is to pay off damage claims against the offender, who must reimburse it, and thus to relieve the claimant of the burden of pursuing a court action.³²

Maine Oil Damage Suit Settled: In early October, 1974, a \$1.5 million settlement was reached in an action brought by Maine after a severe 1972 oil spill.³³ The incident occurred when the Norwegian tanker *Tamano* struck a submerged outcropping causing a leak of 100,000 gallons of bunker C fuel oil into Casco Bay. Under the provisions of the settlement reached in the U.S. district court in Portland, the state will receive \$750,000. Commercial clam diggers who participated in the suit will share \$475,000, and commercial boat and real estate owners will share \$275,000. Prior to

31. *Id.* at 480.

32. 5 ENV. REP. 562 (Aug. 30, 1974).

33. See *Recent Developments in the Law of the Sea V: A Synopsis*, 11 SAN DIEGO L. REV. 691, 706 (1974), and *Recent Developments in the Law of the Sea IV: A Synopsis*, 10 SAN DIEGO L. REV. 559, 578 (1973).

this settlement, Willhelmsen, Inc. of Oslo, the owners of the *Tamano*, had already paid approximately \$2 million for clean-up costs.

In an earlier development regarding this suit (*Burgess v. Tamano*), the U.S. District Court for the District of Maine declared on March 22, 1974, that the U.S. can be held liable for its negligent clean-up of the *Tamano's* oil spill. The issue arose when the *Tamano* impleaded the U.S. as a third-party defendant, as well as filing directly against the government. The plaintiffs' contention was that the Coast Guard's negligent conduct in pursuing its containment and clean-up activities was the proximate cause for the escape and spread of the oil. The U.S. responded that any liability arising from the oil spill must run to the *Tamano*. However, the court held that by attempting any effort like pollution abatement, the U.S. is liable in tort for the ramifications of its negligence, similar to the liability of a private individual for his negligent conduct. Further, while rejecting the plaintiffs' argument for indemnification from the U.S., the Court held that the *Tamano* may attempt to secure contribution from the U.S. for any liability found by the court against her. The court also dismissed *Tamano's* actions against the U.S. under the Refuse Act and the Water Quality Improvement Act, since neither piece of legislation establishes a private cause of action against the U.S.³⁴

The settlement applies only to the claims pending against the *Tamano*, but does not apply to the claims against Texaco, Inc., which chartered the vessel, for failure to contain the oil slick. In addition, the settlement does not affect the counterclaims by Texaco and the *Tamano* against the government for negligent cleanup operations.

SEABED RESOURCES

United States Looks To Sea For Minerals: U.S. industry is beginning to cast an eye toward the sea as a possible source of minerals which are in short supply in this country.

The hazards of the United States depending on foreign nations is readily apparent after the recent Arab oil boycott. Significantly, that dependence extends to many hard minerals as well. To mitigate this dependence, some companies are developing techniques to mine the ocean floors for manganese nodules (small metallic lumps which vary in size from pebbles to rocks five inches or more in diameter). These nodules—which contain manganese, copper, nickel, and cobalt—are so abundant that only the roughest estimates are being made as to their value. At the present time, the United

34. 6 ERC 1380 (1974).

States imports 95 percent of its manganese, 98 percent of its cobalt, 74 percent of its nickel, and 18 percent of its copper. Manganese is mainly used in the production of steel; nickel is used for making stainless steel; and cobalt is an important component of super alloys which must resist high temperatures and stresses.

Three U.S. companies are developing techniques to vacuum the nodules off the ocean floor by means of a hydraulic dredge and a pipe hung over the side of a ship. The three are Kennecott Copper Corp., Tenneco, Inc., and Summa Corp. Most of the exploration for the nodules is in the North Pacific, where industry estimates of the amount vary from 90 billion to 1.6 trillion tons. The nodules are most abundant in the deepest areas of the oceans, often under 2 to 4 miles of water, which means they are usually far offshore in international waters.

The major problem at this time in mining the deep seas is not the lack of technology, but the uncertain legal status of doing so in international waters. The United Nations adopted a resolution in 1969 calling for a moratorium on seabed mining in international waters until the nations of the world could agree on how development will take place and how revenues will be distributed. The United States voted against the non-binding resolution because it believed that a moratorium would only delay development of technology.

Offshore Oil Awaiting Discovery: Billions of tons of undiscovered oil may be brewing off the coasts of the continents a mile or more under the oceans. If the theory is correct, the ancient geologic processes that created the petroleum now being tapped are forming new pools on the ocean floor. At the present time there is no method for recovering this oil. However, it is thought that if the petroleum reservoirs are found, the technology necessary to tap them will be developed.

The conditions for brewing oil are likely to exist where the continental slopes meet the ocean floor. The slopes are formed by the dropoff of the continental shelves—extensions of continental land masses past the coastline and into the ocean. At the bottom of the continental slopes is a large accumulation of sediment, or eroded material swept from the continental surfaces by rivers draining into the ocean. The sediment contains organic matter from which oil is formed. The proper conditions must be present—that is, the ma-

terial must accumulate and be buried under thick sediments rapidly to keep it from being decomposed by oxygen in the sea water. It then must be subjected to the mild heat so as to change the residual organic mass into the complex hydrocarbons, or petroleum. The heat is supplied by the earth's natural accumulated warmth under thousands of feet of sediment.

If petroleum formation has taken place as outlined, and if the underlying rock in some places is of the kind necessary to capture and hold petroleum, the ocean at the bases of the continents will offer vast reservoirs of billions of tons of petroleum. A conservative estimate of the recoverable oil produced in this manner is ten billion tons.

CEQ Report on the Environmental Impact of Oil and Gas Production on Atlantic, Alaska Outer Continental Shelves: The Council on Environmental Quality (CEQ) released on April 18, 1974, a report on the environmental impact of oil and gas development on the Atlantic Outer Continental Shelf and the Gulf of Alaska. In response to a Presidential request, the report evaluates the environmental suitability of 23 hypothetical locations of potential oil and gas fields.³⁵ However, the CEQ refused to endorse such development, as CEQ Chairman Russell Peterson explained that it was not the purpose of the CEQ report to decide if Outer Continental Shelf development should occur.³⁶ Nevertheless, the report does rank the eight most encouraging fields in order of potential environmental risk. These evaluations were based on the likelihood of whether oil spills would reach coastal shorelines due to the presence of prevailing winds and currents in the particular area of development.³⁷ Ranking the fields of the least to the most environmental risk, the list includes the Eastern Georges Bank off the Massachusetts coast, the Southern Baltimore Canyon off the Chesapeake Bay, the Western Georges Bank off the Cape Code coast, the Central Baltimore Canyon off the New Jersey coast, the Northern Baltimore Canyon off Long Island, the Southeast Georgia Embayment off the Georgia and Florida coast, the Western Gulf of Alaska, and the Eastern Gulf of Alaska.³⁸

The report estimated the oil production potential of the Atlantic Outer Continental Shelf and the Gulf of Alaska at approximately 13 to 26 billion barrels, exceeding the present U.S. annual consumption by two to four times. With regard to natural gas, the CEQ

35. 4 ENV. REP. 2093 (April 19, 1974).

36. 4 ENV. REP. 2129 (April 26, 1974).

37. *Id.* at 2130.

38. *Id.* at 2129.

estimated the potential at 70 to 140 trillion cubic feet, approximately three to six times the present U.S. annual consumption.³⁹

Among its recommendations to minimize the environmental risk involved in this development, the CEQ suggested requirements of environmentally protective technology and improved operating practices, the postponement of leasing of areas where the production and transportation of oil to the market is unsafe, the development by the E.P.A. and the Interior Department of detailed guidelines for disposal of drilling muds and cuttings, and the strengthening of state coastal zone management programs to regulate the on-shore ramifications of Outer Continental Shelf development.⁴⁰

Further, the report advised that the development of the Outer Continental Shelf should be regulated by several principles in order to lessen environmental risk. The CEQ recommended the placement of a high priority on environmental protection, the application of the most advanced commercially available technology, the complete implementation and uncompromising enforcement of federal regulations, the close cooperation between state and federal governments, and the encouragement of public participation.⁴¹

U.S. Jurisdiction Over Domestic Outer Continental Shelf Reaffirmed: In June, 1974, the U.S. Supreme Court refused to review the decision of the Court of Appeals for the Ninth Circuit in *Lowe v. Union Oil Company of California*.⁴²

In that decision, the Ninth Circuit affirmed the district court's holding that the plaintiffs' claims to fossil fuel deposits underlying the California Outer Continental Shelf, allegedly established by the filing of placer mining locations pursuant to the General Mining Laws, were invalid. The Court premised its decision on the Outer Continental Shelf Lands Act, enacted by Congress in 1953.⁴³ It ruled that the U.S. by the enactment of the Outer Continental Shelf Lands Act had asserted its ownership of and jurisdiction over the seabed resources of the Outer Continental Shelf, as well as provided for the establishment of an exclusive system of leasing for the ac-

39. *Id.* at 2130.

40. 4 ENV. REP. 2093 (April 19, 1974).

41. 4 ENV. REP. 2130 (April 26, 1974).

42. 487 F.2d 477 (9th Cir. 1973), *petition for cert. denied*, 42 U.S.L.W. 3663, 3666 (U.S. June 3, 1974) (No. 73-1429).

43. 43 U.S.C. § 1331 *et seq.*

quisition of mineral interests.⁴⁴

Outer Continental Shelf Leasing Held In Accord With NEPA: On July 15, 1974, the U.S. District Court for the Middle District of Florida ruled in *Sierra Club v. Morton* that the Department of Interior's issuance of oil and gas drilling leases off the coasts of Alabama, Florida and Mississippi were not violative of the National Environmental Policy Act. It had been alleged by the Sierra Club that the environmental impact statement drafted on the leases were severely inadequate and that the Interior Department had thus violated NEPA by approving it and proceeding with the leasing.⁴⁵

Oil Company's Drilling Operations in Santa Barbara Channel Exempted from Permit Requirements: On July 10, 1974, Standard Oil of California's drilling activities in the Santa Barbara Channel were exempted by the California Coastal Zone Commission from the permit requirements of the California Coastal Zone Conservation Act. The Commission explained its decision by stating that the firm had a vested right to drill from four specific platforms prior to the adoption of the Act and its permit regulations.⁴⁶

Sea Oil Income Voted For States: On September 18, 1974, the Senate passed and sent to the House legislation which gives coastal states a share of federal offshore oil revenue.⁴⁷ Senators from coastal states argued that the states were entitled to compensation for expenses arising from drilling in federal waters. Senator J. Bennett Johnston said that in 1972 the costs to Louisiana exceeded \$38 million in providing governmental services to oil companies drilling in federal waters.

Under federal law, the states may claim a share of revenue from oil extracted up to three miles offshore. However, beyond that limit, the states are not entitled to any revenue collected from oil companies by the federal government. The courts have consistently ruled against the states in their attempts to share in oil revenue from federal waters.

The legislation, sponsored by Johnston, marks the first attempt to mandate a share of the revenue for coastal states by congressional action. The bill would establish a \$200 million fund the federal government could draw upon to compensate states for adverse environmental, social, and economic effects of drilling in federal waters. At present, Louisiana would receive the major portion of

44. 487 F.2d 477, 479-80.

45. 5 ENV. REP. 400 (July 26, 1974).

46. *Id.* at 404.

47. S. 3221, 93d Congress, 2d Sess. (1974).

the money because more drilling is being done in federal waters off its coast than the coasts of other states.

Developments in the U.S. Outer Continental Shelf Leasing Controversy: In January, 1974, former President Nixon ordered an increase by tenfold, or to a rate of approximately 10 million acres a year, the leasing of Outer Continental Shelf oil lands. The purpose behind the order was to move closer to achieving national self-sufficiency in energy fuel and thus secure independence from foreign oil sources. In response, four development offshore areas were placed under consideration for exploration by the Department of Interior. The proposed areas included the Outer Continental Shelf off the Southern California coast between Santa Barbara and San Clemente, the Georges Bank off New England, the Baltimore Canyon of the Mid-Atlantic states and the Gulf of Alaska.⁴⁸ The Interior Department's effort to secure its goal of the sale of offshore oil leases covering 10 million acres during 1975 alone has caused a great deal of public clamor and controversy because states, congressional members and environmentalists are applying heavy pressures to control this "hasty" exploration and development.

With regard to the proposed California development area, the State of California on August 15, 1974, filed suit in the U.S. District Court for the Central District of California to block the anticipated mid-1975 sale of the 1.6 million acres off the Southern California coast.⁴⁹ Brought on behalf of the California Coastal Zone Commission, the suit charges that the Interior Department violated the National Environmental Policy Act by failing to adequately assess the environmental impact of the drilling. Furthermore, the federal court complaint contains the argument that the Interior Department should complete environmental and production investigations of alternative sources prior to making the decision of whether to lease off the California coast.⁵⁰

During two days of hearings in late September, 1974, before a Senate Commerce subcommittee chaired by Senator John V. Tunney, federal officials met a barrage of opposition, including

48. Presently, nearly all offshore oil production has been in the Gulf of Mexico, where since 1953 approximately 15,000 square miles have been leased.

49. *California v. Morton*, No. 74-2374 AAH.

50. 5 ENV. REP. 566 (Aug. 30, 1974).

Labor Day petitions signed by over 200,000 individuals. Senator Tunney urged that the federal government establish a moratorium on leasing offshore oil lands effective until the passage by Congress of legislation that would assure state and local governments of a greater role in policy and decision making. At the hearings, the insufficiency of federal consultation with state and local interests was the basis of the opposition to the coastal development.

In addition, David E. Lindgren, deputy solicitor of the Interior Department, testified that the leases would not be awarded in May, 1975, as previously announced. He assured the subcommittee that the decision to proceed with California offshore oil leasing would not occur until after July, 1975, when both environmental impact assessments and the California Citizen Commission's draft of the California Coastal Development plan would be completed.

The Department of Interior has encountered similar opposition in its effort to push the development of the other potential offshore oil deposits. Concerning the Atlantic Ocean development areas, any leasing has been tentatively blocked by a suit by the State of Maine against the federal government in which case the U.S. Supreme Court will have to decide whether Atlantic offshore areas are owned by the federal government or the coastal states. In regard to the Gulf of Alaska, offshore oil exploration has been considered a low-ranking possibility due to ecological and climate problems.

Notwithstanding this opposition, an Interior Department internal memorandum, which became public in early October, 1974, unveiled a request by Interior Undersecretary John C. Whitaker that the Bureau of Land Management prepare "a firm leasing schedule" aimed at leasing 10 million offshore acres in the Atlantic, the Gulf of Alaska and other areas by 1975. In response to this memorandum, the Interior Department, as well as President Ford, encountered a barrage of protest.

In a telegram to Secretary of Interior Morton, former Governor Wilson of New York called for a halt in the preparation of offshore drilling plans and requested a meeting with the Interior Department to determine the latter's intentions. Wilson indicated that New York would not condone oil drilling off the New York Coast unless it is fully satisfied that the state's coastal areas would not be threatened. Further, he noted his concern that the Interior Department had apparently disregarded the mandate of the National Environmental Policy Act of 1969 which requires a full analysis in consultation with the states affected prior to any offshore oil development.

Expressing the same sentiment, Governor Byrne of New Jersey, protested the Interior Department action, as he sought assurances that no action endangering the New Jersey coastline would be taken without first proper consultation with and approval by New Jersey authorities.

On October 7, 1974, twenty U.S. senators urged President Ford to modify the Department of Interior's plans to lease 10 million acres of offshore oil drilling rights in 1975. The senators, including Senators Cranston, Kennedy, Pastore and Tunney, premised their request on doubts as to the financial and technical capability of the oil and gas industry in the development of such a great number of acres within a year. Criticizing the decision for giving no attention to the environmental impact of any drilling, the senators protested the program "at a time when environmental baseline studies and state coastal zone management efforts are at a very early stage."⁵¹ The senators also indicated their concern that

the Interior Department is moving ahead with apparent disregard for the inter-agency effort to gather environmental baseline data on the proposed new areas, and similar disregard for state efforts to develop coastal zone management programs in accordance with the Coastal Zone Management Act of 1972.⁵²

In essence, the protest of the coastal states is based on the fact that the states share none of the revenue from far offshore drilling operations since the outward jurisdiction of the majority of coastal states to the offshore seabed is limited to three miles.⁵³ Therefore, when it comes to financing the environmental plans to counter the substantial environmental risks brought upon by the leasing, the coastal states are left carrying the cost burden, unaided by any mechanism to reduce it.

On October 21, 1974, the Interior Department admitted the expectation that the proposed leasing of 10 million offshore acres for oil and gas development would inevitably entail at least one major and thousands of minor oil spills. The draft environmental impact statement based this prediction on past performance in potential oil deposit areas where there existed significant development of off-

51. 5 ENV. REP. 891, 892 (Oct. 11, 1974).

52. *Id.*

53. Texas is an exception, as it has seabed control outward to a nine-mile limit.

shore exploration and production.⁵⁴ In regard to the environmental effects of the offshore development, the document repeatedly stressed the lack of sufficient scientific data. However, it did endorse the findings of Dr. James I. Jones, research coordinator of Coastal Coordinating Council, Florida Department of Natural Resources. Jones' research indicated that "in areas where the ecosystem is already stressed, a single catastrophic spill could well create effects that are far beyond the natural recuperative powers of the ecosystem."⁵⁵

The statement also offered a tentative schedule for leasing 10 million acres in 1975. To begin with, the plans call for the leasing of approximately 3 million acres in the Gulf of Mexico off south Texas, to be followed by 2 to 3 million acres in the Central Gulf. Then, it is feasible that the leasing of 1.5 million acres off Southern California, and approximately 2.5 million acres in the Cook Inlet of Alaska will occur.

On November 13, 1974, President Ford and Interior Secretary Rogers C.B. Morton announced at a White House meeting with the coastal state governors and governors-elect the intent of the administration to pursue a tentative plan to speed up offshore leasing. The decision was rationalized by the argument that the Outer Continental Shelf was "the best hope" for increasing national energy supplies at a time of critical need, as such development would involve less environmental damage and less financial impact to the U.S. economy than any other alternative. Further, President Ford promised close cooperation between the federal government and the coastal states in handling the environmental and financial ramifications of offshore oil development, as well as requesting coastal state cooperation with the administration's effort to secure both rigorous conservation controls and domestically required fuels.

Developments in Oil Exploration and Exploitation: In response to the rising western demand for oil, and the spectre of another Arab boycott, worldwide search for new oil sources has proliferated. During 1974, many potentially rich deposits of crude oil have been discovered in the oceans, both deep at sea and on the continental shelves. These ocean discoveries have spanned the globe and brought the excitement of oil exploration to many countries poor by Western standards.

In the Arabian Sea about 115 miles northwest of Bombay centered on a geological lump called the Bombay High, oil has been

54. 5 ENV. REP. 1003 (Oct. 25, 1974).

55. *Id.*

discovered. This reservoir has boosted Indian hopes that oil from the offshore site will increase oil production from 50,000 barrels to nearly 84 million barrels within the next five years. However, Indian estimates have been overly optimistic according to some foreign experts who want more time to prove the commercial value of the discovery.

Not far away, in the South China Sea, Shell and Cities Service Companies have begun exploitations off the coast of South Vietnam. These offshore tracts covering more than 5.6 million acres are presently producing at a daily rate of 1,514 barrels of oil and 5.8 million cubic feet of natural gas. The test sites, according to drilling experts, need further evaluation before massive drilling is begun.

Oil and natural gas have also been found in the Gulf of Panama where the isthmus arches before joining the South American continent. Drilling on the first two wells began in mid-January, 1974, on concessions granted by the Republic of Panama. The first well is to be located 41 miles offshore at a depth of about 325 feet and the second well about 12 miles offshore at a depth of about 250 feet. At this time there are no reliable estimates as to the quantity or quality of the find.

Farther north, off the coast of Southern California, new sites are being readied for both oil and natural gas exploration. On January 2, 1974, the U.S. Interior Department announced that it had taken the first step in opening the Pacific Ocean tracts. Prime targets of the exploration will most likely be along Huntington Beach, Seal Beach, Long Beach, and the Channel Islands. Approximately 7.7 million acres are involved with each tract containing about 3,700 acres.

At present, geologists estimate that the area has about 70 billion barrels of crude oil under the ocean floor. In contrast, the Alaskan North Slope is expected to supply about 10 billion barrels. Various spokesmen indicate that production will not begin before 1980 due to the extensive public hearings and environmental impact reports which will be required along the way. This discovery should do much to alleviate the critical American oil shortage and push the nation towards energy self-sufficiency.

Western Europe has suffered more severely from the Arab oil monopoly than the United States. Consequently, it has redoubled

its efforts to transform the North Sea and Scotland's bordering shores into what oil experts say will be the "Texas of Europe." Geologists estimate that beneath the North Sea lies a vast basin of oil with commercially recoverable reserves of at least one billion tons. It is estimated that by 1985 the North Sea will supply at least 44 percent of western Europe's total energy needs.

The British sector alone is expected to yield an annual 103 million tons by 1980, rendering Britain nearly self-sufficient.

Another potentially rich European find in October, 1974, was announced when a sample of high quality oil was extracted from the ocean floor in the Norwegian Sea. The sample was taken from mile-thick accumulations of sediment in about 4,800 feet of water. It now appears that this oil basin is an extension of the North Sea fields which are also rich in oil and natural gas. The drilling team is not yet certain of the quantity of oil contained in the basin, but further drilling is expected soon.

In the Western Hemisphere, Mexican oil exploration crews are preparing to drill into promising oil-yielding formations in Baja California Sur about 500 miles south of the California-Mexico border. Most Mexican officials are optimistic that substantial quantities of oil exists on the Continental Shelf west of the Baja peninsula. The first test wells are expected soon at about 12,000 feet where seismographic studies indicate both land and sea deposits.

A test well in the Gulf of Thailand recently yielded 1,438 barrels of oil and 37 million cubic feet of gas a day. The discovery is centered in a 4.7 million acre concession granted by the Thai government. There are no present estimates of the size of the deposit or its commercial potential.

Although the Chinese have never released reports on their offshore oil, many experts believe they have massive untapped potential along their continental shelf. At the present time, the Chinese are mainly occupied in maximizing their offshore production, but future demand will, no doubt, require further exploitation of its more than 900 mile-long coastline.

As long as oil continues to be the prime energy source in an expanding industrial world, deep sea exploration will continue at a rapid pace. Despite the protests of world environmentalists that a rapid depletion of the earth's fossil fuels will result in an ecological imbalance, there are beneficial side effects from the massive exploration efforts. For example, since 1971, there has been a virtual revolution in earth science thinking as a result of the informa-

tion gained from deep sea drilling. New theories about the formation of the earth's crust, continental drifting, earthquake control and an expanding ocean floor have been gained from the drilling activities.

SHIPPING

Proposed Superport Off Texas Studied for Ecological Impact: Supporters of a \$440-million superport off Galveston's Pelican Island believe that the economic benefits will outweigh possible environmental damage, if the project is ever approved. The supporters of an alternative plan—one that would locate the superport about 30 miles offshore—are convinced that such an offshore facility would be the safest from the environmental point of view. The Texas Offshore Terminal Commission, appointed to study the problems of constructing a superport, will decide what will be done and the method of financing to be used.

Morro Bay May Be Supertanker Port: Plans by Standard Oil of California could make tiny Morro Bay the first supertanker port in the United States by 1977. The project calls for a singlepoint mooring buoy approximately three miles off Estero Point. This area was selected because of water depth, weather, and location. At the 3-mile mark, the water level is about 150 feet, sufficient for the huge ships.

The plan would have the mammoth tankers, capable of handling up to almost two million barrels of oil, move to within 300 feet of the buoy and hook up to a pair of hoses that will carry the oil to undersea pipelines attached to the buoy. From there, the oil will be pumped to a tank farm to be constructed near this central coast community. The oil will be piped from the 6.4 million-barrel farm across the coast range and up the west side of the San Joaquin Valley to refineries at Richmond, California.

Standard must still obtain permits from San Luis Obispo County, the California Coastal Commission, the Army Corps of Engineers, and the state Air Quality and Water Pollution boards.

United States Vessels Operate Under Liberian Flag: During late 1974, the Senate debated a bill to channel more oil-tanker trade to U.S. flag ships. It has become apparent that a great many merchant vessels carrying U.S. cargo are registered in the small African nation of Liberia, as well as in Panama and Honduras.

The debates have shown that the rationale behind flying the flag of Liberia or any other foreign country is simply financial; for it costs the U.S. shipper much less to operate under, for instance, the Liberian flag, than to employ a ship registered in the U.S. In comparison, over 1,000 oil tankers are registered in Liberia, while only 242 are flying the U.S. flag. The cost inducement which Liberia offers include lower cargo space charges, lower annual tonnage taxes, and more liberal requirements relating to minimum size of crew. Further, U.S. crews are more expensive due to the labor unions, as a U.S. seaman often earns twice that of his foreign counterpart.

Bill To Permit Sea Superports Clears Senate: On October 9, 1974, the Senate approved a bill authorizing construction of open-sea superports to handle oil brought to the U.S. in large tankers.⁵⁶ The bill, which the House has passed in slightly different form, is on the Ford administration's priority list of energy legislation.

The superport question has been pending in Congress for three years. Oil importers want to cut costs by avoiding the nation's relatively small natural harbors and instead transferring the oil ashore through mooring stations 20 miles or so at sea. Large tankers would discharge oil through submerged pipelines running to tank farms on land. Some environmental groups, fearing big oil spills at sea, had resisted the idea. The bill authorizes the Department of Transportation to issue licenses for superports after environmental standards are satisfied.

However, one sharply disputed point was whether oil companies should be allowed to group together to own and operate superports. Joint oil company ventures already are planned in Louisiana and Texas to operate two superports in the Gulf. Opponents of this approach argue that oil consortia might engage in monopolistic practices. The opponents want state governments or non-oil companies to get the licenses instead. The bill passed by the Senate grants priority to state governments for obtaining superport licenses, with non-oil companies having second priority. However, if there were not any such applications forthcoming, oil companies would be allowed to seek the license.

Suez Canal to Open by Mid-1975: In early November, 1974, Mashour Ahmed Mashour, the Suez Canal Authority chairman, predicted that the Suez Canal will be reopened to international shipping during the first half of 1975. Mashour indicated that the effort of clearing the Canal of sunken ships and thousands of mines and

56. S. 4076, 93d Congress, 2d Sess. (1974).

unexploded shells left from the Arab-Israeli conflict was near completion. The nations which have participated in the cleanup include Egypt, France, the Soviet Union and the United States. Mashour also stated that the exact date of reopening will depend upon the arrival and fitting of imported navigational aids from Europe and America required for replacement purposes.

SOVEREIGNTY

Oil Drilling Rights Disputed: A territorial dispute between Greece and Turkey over oil drilling in the Aegean Sea erupted on February 23, 1974. The Greek government said Turkey granted permission for oil prospecting in the area without considering Greek sovereignty over an ocean shelf of a nearby island chain. The islands involved are Lemnos, Chios, Lesbos, Samothrace, Psara, Antipsara, and Aghios Efstratios.

Turkey allegedly gave the Turkish State Petroleum Company permission to explore and exploit existing oil deposits at 27 points of that underwater area.

Alaska Held to Have Historic Title of Cook Inlet: On March 19, 1974, the U.S. Court of Appeals for the Ninth Circuit affirmed a lower court decision that held that the lower part of Cook Inlet was an inland bay over which the State of Alaska, not the U.S. government, had jurisdiction.⁵⁷

Alaska's Cook Inlet is approximately 47 miles in width at its mouth, diminishing inland to a 24-mile width at Kalgin Island. Alaska proposed to offer for sale oil and gas leases between the two cited measurements. In response, the U.S. sued to quiet title to the lower part of the inlet and to enjoin Alaska from leasing in that particular area. The district court's finding that the inlet was inland water and its subsurface resources belonged to Alaska was affirmed by the Ninth Circuit. The court acknowledged that the lower part of Cook Inlet, which was 47 miles wide, was not an "inland bay" as defined in the Convention on the Territorial Sea and the Contiguous Zone, because the Convention requires a distance of no more than 24 miles between natural entrance points.⁵⁸ However, the court held that the trial court's finding that

57. U.S. v. Alaska, 497 F.2d 1155 (9th Cir. 1974).

58. *Id.* at 1156.

the inlet was a historical bay was not clearly erroneous, since it correctly adopted and applied the three-pronged test recommended by the International Law Commission of the United Nations.⁶⁰ In determining whether a state has historical title to a maritime area, the factors to be considered in this test are the state's exercising of authority over the particular area, the continuity of the exercise of authority, and the attitude of foreign states to the exercise of such authority.⁶⁰

The U.S. filed a petition for certiorari to the U.S. Supreme Court on July 17, 1974,⁶¹ which review was granted on December 9, 1974.⁶²

Judge Favors U.S. in Seabed Dispute: On September 3, 1974, a Special Master appointed by the Supreme Court recommended that the Court rule in favor of the federal government in a dispute between the U.S. and 12 states over ownership of submerged land off the Atlantic coast. The Master suggested that the U.S. be declared the owner of the seabed between a line three miles from the coastline of 12 states and the edge of the continental shelf.

The government instituted suit in 1969 after Maine, one of the states, granted exclusive oil and gas rights in approximately 3.3 million acres of submerged land more than three miles from the coast. The states contended they were entitled to the natural resources of the seabed as successors to grantees of the British and Dutch crowns. The Master claims that former claims of the crown to exclusive fishery rights did not extend to claims for ownership of the seabed.

Norway's Fishing Limits To Be Extended: In late 1974, Norway announced its intention to extend control in three phases to waters 200 miles from shore and thus bar foreign fleets from commercial fishing waters off the Norwegian coast. The first stage provides for the proscription of trawling in an area totalling 5,000 square miles, primarily off the northern coast. This phase would extend the internationally recognized 12-mile limit in particularly important areas by up to 42 miles. The target date for the completion of this phase is late December, 1974. The second phase of the Norwegian plan is to establish a 50-mile limit that would be restricted to the Norwegian fleet and subject to Norwegian conservation measures. The third and final stage is the creation of a 200-mile economic zone under Norwegian control.

59. *Id.* at 1157.

60. *Id.*

61. 43 U.S.L.W. 3036 (No. 73-1888).

62. *Id.* at 3325.

As indicated by the substantial Norwegian diplomatic effort in an attempt to minimize international resistance, the Norwegian government has rationalized this extension of its fishing limits because of foreign overfishing. Norway contends that cod and other species of fish in the Barents Sea and bordering waters are threatened with extinction due to overfishing. Norwegian experts have indicated that a maximum of 57,000 tons ought to be taken, which is a sharp decrease from the expected international catch for 1974 of approximately a million tons. The severity of the problem is increased in light of the fact that fishing has always been one of Norway's most important industries, as a large portion of the Norwegian population derive their livelihood from fishing or processing. Thus, as evident from the primary phase, it is the intention of the Norwegian government to protect local fishermen by extending the 12-mile limit.

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