NOTES

DEEPWATER PORT ACT OF 1974: SOME INTERNATIONAL AND ENVIRONMENTAL IMPLICATIONS

I. INTRODUCTION

On January 4, 1975,1 President Ford's signature transformed HR 10701 into Public Law 93-627, the Deepwater Port Act of 1974,2 "an act to regulate commerce, promote efficiency in transportation and protect the environment, by establishing procedures for the location, construction, and operation of deepwater ports off the coasts of the United States, and for other purposes,"3 (hereinafter referred to as the Act). Legislative considerations specifically involved the legality under international law of authorizing construction of artificial structures on the high seas under domestic jurisdiction, with use of these facilities conditioned upon acceptance of such action and the inherent environmental consequences of encouraging the plying of American waters by supertankers. This Note presents an examination of those issues within the framework of the Deepwater Port Act itself.

II. BACKGROUND

The United States consumes over 18 million barrels of oil per day with only 60 percent of that consumptive appetite met by domestic production. Imported petroleum must satisfy the balance of domestic demands. Projections indicate that national dependence on crude oil imports will increase dramatically within coming years, perhaps rising to the level of 26 million barrels per day by 1985.4 In 1973, 80 percent of those imports arrived via tankers5 and there are no indications that technology will soon replace tankers with more efficient means of moving vast quantities of petroleum on a global scale. Given such facts, one may be justified in assuming that oil tankers will very likely play an integral role in petroleum transportation in coming years.

The average size of tankers now used to bring crude oil to the United States is 30,000 to 35,000 deadweight tons (dwt).6 Vessels of this size

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experience little difficulty in service to United States ports. But as the
volume of crude oil shipments has steadily increased at the global level,
so too have demands for a more economical transport system. Such pres-
sures have resulted in the conclusion that the most efficient method of
moving large quantities of crude oil vast distances involves larger tanker
capacity. This is amply illustrated by the fact that the cost of Persian Gulf
oil transported in 47,000 dwt tankers to Louisiana is $7.30 per ton more
than oil shipped in a 125,000 dwt tanker. As a result of such economic
considerations (and spurred partly by the abrupt closing of the Suez Canal
during the 1967 Middle East Six Day War and the resulting necessity of
routing tanker fleets around Cape Horn), the oil industry looked to the
development of a class of tankers much larger than those previously in
service as a means of reducing costs. These supertankers or Very Large
Crude Carriers (VLCC), ranging in size from 100,000 to 500,000 dwt, may
exceed 1000 feet in length and require drafts of 90 feet or more. Already
plans are underway to construct VLCC in the range of 700,000 dwt, and
tankers of up to 1 million dwt are not unforeseeable.

Large capacity vessels of 100,000 dwt or more presently comprise only
ten percent of the 4,336 tankers operating around the world; however, that
ten percent represents almost 40 percent of total tanker capacity. The "fly
in the ointment" from the petroleum industry's perspective lies in the fact
that VLCC require harbors with deep draft channels. With the exception
of the Puget Sound area on the Pacific Ocean and several inlets on the
coast of Maine, no United States port currently has the draft required to
accommodate VLCC; consequently, the concept of deepwater ports has
emerged as an enticing answer to the problem of providing supertankers
with access to American refinery capacity.

Basically, the concept of deepwater ports consists of a system whereby
VLCC are able to discharge their cargos of crude oil while still at sea by
means of a pipeline hookup to the shore. Taking advantage of ocean depths
in excess of 100 feet, supertankers will dock at a floating buoy or artificial
island and make connections with floating hoses. With the aid of a pump-
ing station located at or near the deepwater port installation, the VLCC is
able to discharge its entire cargo of crude oil without the necessity of a close

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The discharged oil is then either stored at the site of the deepwater port in large storage tanks or immediately piped to shore where it may be processed at either on-site or distant refineries.

Proponents of deepwater ports seek to base their position on two primary factors: economics and environmental concerns. Both theories are based on the assumption that national energy needs can only be met in the future by increasing or, at the very least, maintaining levels of oil shipped to this country. Given that starting point, they maintain that the United States must reconcile its voracious, steadily increasing demand for petroleum products with the most efficient means technologically available for satisfying that demand. Longhaul economics have already demonstrated that increased world-wide use of supertankers is the best method of reducing per-barrel shipping costs. Thus, the United States must either fall in line with current trends or accept the higher cost consequentially inherent in the use of smaller tankers. But, they argue, the latter course would in the long run result in environmental deterioration. The use of supertankers would reduce harbor congestion by cutting down on the number of tankers in service, resulting in lessened chances of oil pollution caused both by tanker collisions and by unintentional (as well as intentional) discharges of oil from ships. Further, any oil spills resulting from supertanker accidents would occur at sea, thus reducing the chances of serious damage to beaches and marsh areas. The Council on Environmental Quality has estimated that use of VLCC and deepwater ports can reduce the risk of spills by 90 percent from levels anticipated if the small tankers currently in use are required to move large volumes of crude oil into small ports. In true environmental impact statement fashion, proponents also point out that the alternatives to deepwater port development are environmentally and/or economically less desirable. These alternatives include transshipment of oil by pipelines from deepwater ports located in Canada, Puerto Rico or Mexico; federal subsidization of a shallow-draft tanker fleet; dredging present harbors to depths enabling them to receive VLCC; or continuing present practices. The argument is completed by noting that implications of these alternatives would involve alternative impacts on the coastal environment of equal or greater proportion, substantial outlays of govern-

11 For detailed operating procedures of one proposed deepwater port (Louisiana Offshore Oil Port) see Louisiana Offshore Port Feasibility Study in Merchant Marine and Fisheries Hearings, supra note 6, at 301.
12 Meltz, supra note 10, at 50043.
13 See text accompanying note 7 supra.
14 Merchant Marine and Fisheries Hearings, supra note 6, at 152-53.
15 Senate Passes, Sends to Conference Bill with Stiff Environmental Control, 5 ENV. REP.—CURRENT DEVELOPMENTS 940 (1974-75).
16 Id. at 143.
17 I.e., the dredging activity required to deepen present channels of 50 foot depth to the 100 feet or more of depth necessary to accommodate VLCC will have far-ranging effects on
ment capital, balance of payments problems, and questions regarding the security of an adequate fuel supply to the United States.18

The opposition to deepwater port development points out that the discharge from only one such supertanker is liable to result in damage equivalent to that likely to be produced by many average sized tankers. They also point to the fact that such accidents are even more likely to occur on a per ship basis if supertankers are pushed into widespread service because such tankers are constructed with few environmental or safety considerations in mind.19 Environmentalists point out such faults as single screw construction, lack of stabilization planes, lack of double hulls, and general economic-minded construction as factors which support this conclusion. The enormous distances required to stop VLCC—as much as 2.5 miles for a relatively small tanker in the 200,000 dwt range—drastically reduce the tolerable margin of error. In fact, it is impossible for giant tankers to operate within the rules set out in Regulations for Preventing Collisions at Sea.20 Once it is realized that oil spill containment is still in its infancy, the incredible seriousness of the problems presented by modern trends in oil transshipment becomes apparent. Economics and the energy crisis, however, gained the upper hand in committee hearings. It should not be surprising that the legislative history of the Deepwater Port Act is concerned much less with questions addressed to whether or not such development is desirable than with how and where such development will occur.

III. AN ANALYSIS OF THE DEEPWATER PORT ACT

The basic thrust of the Deepwater Port Act as seems to translate itself into dual commandments: (1) construction and operation of deepwater port facilities will be strictly planned according to Congressional priorities; and (2) once a permit is issued, the licensee will be subject to continuing scrutiny in order to provide for on-going compliance with these priorities. Such a system can only be geared to function in connection with provisions that allow ample time, means, and expertise for the formulation of detailed plans and also for the means whereby both interested governmental entities and private citizens may monitor these activities and exercise appropriate enforcement measures. The Act attempts to provide this through a permit system with primary responsibility for its administration vested in one existing federal agency rather than a specially created commission. Sufficient input sources are provided in favor of both other interested

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coastal ecosystems, Merchant Marine and Fisheries Hearings, supra note 6, at 208-09; Joint Hearings, supra note 10, at 567-68.


19 Joint Hearings, supra note 10, at 569-70.

20 Kalsi, Oil in Neptune's Kingdom: Problems and Responses to Contain Environmental Degradation of the Oceans by Oil Pollution, 3 ENV. AFFAIRS 79, 93 (1974) [hereinafter cited as Kalsi].
government agencies, federal and local, and the public, to insure that administration of the Act by one agency will not take place in a vacuum.

Primary authority under the Act is given to the Secretary of Transportation (hereinafter referred to as the Secretary). To the Secretary falls the responsibility of formulating appropriate guidelines to carry out the purposes and provisions of the Act. The Secretary also acts as the clearing house for permit applications, to coordinate the input supplied by other interested agencies concerning applications, to conduct hearings, and either to approve or disapprove each application. A permit application filed with the Secretary constitutes an application for all federal authorizations needed, as the Secretary is charged with the forwarding of applications to all federal agencies and departments exercising jurisdiction over any phase of construction, operation, or ownership of deepwater ports. The Secretary also acts for these agencies in preparing a single environmental impact statement which preempts their responsibility in this area. After construction of the facility has reached completion and after consultation with various other divisions of the federal government, the Secretary will designate the limits of a safety zone around the installation and list those activities permitted within that zone. The continued operation of the port is subject to the authority of the Secretary to receive requested information necessary to carry out the provisions of the Act, as well as the power to examine the records and books of the enterprise. On-the-spot investigation is provided for through a provision for reasonable access by United States officials at all times. Once it is determined that a violation of some provision of the Act has occurred or of any regulation, order, or license condition, the Secretary may either issue a compliance order or request the Attorney General to file a civil suit against the miscreant. In addition, functions of the Secretary include promulgation of standards necessary to assure the safe construction and operation of oil pipelines on the outer continental shelf and the authority to halt all activity concerned with the structure should an emergency situation arise. It is also the Secretary's responsibility to submit an annual report to the Congress concerning deepwater port activities, supervisory and regulatory activities, enforcement proceedings, and recommendations as to further legislative authority desired in order to better effectuate the purpose of the Act.

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22 Id. § 1504(e)(1), (g).
23 Id. § 1504(e)(2).
24 Id. § 1504(f).
25 Id. §§ 1590(a), (d)(1); § 1509(d)(2) allows the Secretary to establish a safety zone around the facility during construction.
26 Id. § 1512.
27 Id. § 1511(a).
28 Id. § 1520(a).
29 Id. § 1511(b).
30 Id. § 1519.
One of the Secretary's most important functions under the Act is oversight of permit procedures. The permit process underscores the basic method by which the Act seeks to put decisive control of all port activity in the hands of the federal government. The scheme is simple enough. If someone wishes to build a superport, they must first obtain a permit from the federal government; the permit will not be forthcoming until certain procedural as well as substantive requirements are met. Once the permit is granted it is subject to revocation or suspension for failure to fully comply with the statutory and regulatory scheme. As the cost of constructing a deepwater port has been estimated as high as $575 million, it would seem that few licensees would care to jeopardize an investment of such magnitude by intentionally obstreperous conduct. This rationale is tempered somewhat by the fact that any such action on the Secretary's part would be subject to judicial review. However, the threat of governmental action exists.

Any citizen of the United States meeting the eligibility requirements put forth by the Act is a potential licensee. This includes individuals, partnerships, corporations and governmental entities. Several corporations may join in one cooperative effort, the resulting association being eligible for the issuance of a license. This is in large part a recognition of the enormous financial reserves which will be needed to fund construction and operation of a deepwater port. Section 1506 of the Act specifically deals with antitrust review pursuant to this contingency and attempts to insure that such undertakings will be consistent with the antitrust laws and will not result in the licensee enjoying a privileged status. Not only must the licensee conform to antitrust laws; the terms of the Act specifically respect the rights of the Attorney General and the Federal Trade Commission to challenge any anticompetitive aspect of deepwater port operation. The effect of this section would seem to be directed toward the removal of any prima facie presumptions of antitrust violations arising merely from the fact that two or more corporations choose to direct their energies toward a joint effort in this field.

As noted above, an application filed with the Secretary statutorily constitutes an application for all needed federal authorizations pertaining to ownership, construction, and operation of a deepwater port. The permit procedure becomes operative as soon as the first application for a deepwater port license is made. The Act does not attempt to dictate the location of any port established pursuant to it. That decision is purely one of policy.

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31 Id. §§ 1504(c)(1), 2 (A)-(L).
32 Id. § 1511.
33 Cost of Seadock Project (off Freeport, Texas), Equal Voice Hearings, supra note 8, at 11.
35 Id. § 1503(g).
36 Id. § 1506(b)(2).
and practicality to be decided upon by the applicant. The applicant must submit detailed plans of the project in the application to the Secretary.\textsuperscript{37} The Secretary, upon receipt of the application,\textsuperscript{38} has 21 days in which to determine the completeness of the information detailed in the application. If all items are in order, notice of the application and a summary of the plans will then be published in the \textit{Federal Register}.\textsuperscript{39} Preconstruction testing and site evaluation by the applicants is allowed \textit{sans} permit; however, those activities which adversely affect the environment, interfere with authorized uses of the outer continental shelf or pose a threat to human health and welfare are subject to regulations prescribed by the Secretary.\textsuperscript{40}

An approved license application triggers the exclusivity policy of the Act. Along with the proposed application, the Secretary is required to publish in the \textit{Federal Register} a description of the application area encompassing the proposed site.\textsuperscript{41} Within that zone no other deepwater port will be constructed. The application area consists of any reasonable area within which a deepwater port shall be constructed and operated and shall not exceed a circular zone with center located at the proposed port site and radius extending to the high water mark of the nearest adjacent state.\textsuperscript{42} The publication of such information in the \textit{Federal Register} shall be accompanied by a call for all other applications within the designated area. Persons intending to file an application for a site falling within the designated area must file a notice of intent within 60 days after publication in the \textit{Federal Register} and must submit the completed application within 90 days of said publication. Failure to meet these time limits will foreclose consideration of the application until the application pending with respect to the designated area has been denied.\textsuperscript{43}

\textsuperscript{37} \textit{Id.} § 1504(c)(1).
\textsuperscript{38} The application must contain, but is not limited to, such information as: the identity and addresses of all persons having an ownership interest of more than three percent, to the extent feasible the identity and addresses of any person with whom the applicant has made or proposes to make a significant contract for construction or operation of the deepwater port including a copy of any such contract, identities and associations of affiliates, the proposed location and capacity of the deepwater port, the envisioned design of the deepwater port, a timetable of anticipated dates of completion according to each phase of the port's construction, the location and capacity of pipelines and storage facilities through or from which oil transported through the deepwater port will flow, information as to refinery activity connected with the facility, the financial and technical capabilities of the applicant, any such information required by the Secretary in order to determine the environmental impact of the deepwater port, descriptions of procedures to be used in connection with constructing, maintaining, and operating the deepwater port and other qualifications possessed by the applicant which support his application to hold a license. \textit{Id.} § 1504(c)(2)(A-L).
\textsuperscript{39} \textit{Id.} § 1504(d)(1).
\textsuperscript{40} \textit{Id.} § 1504(d)(2).
\textsuperscript{41} \textit{Id.} § 1504(d)(3).
Interested federal agencies and departments shall be forwarded copies of all applications and based upon legal considerations within their area of responsibility, shall recommend approval or disapproval of the license to the Secretary not later than 45 days after the last public hearing on such proposed license. No license approvals shall be forthcoming until at least one public hearing has been held in each adjacent coastal state. Should the Secretary determine that there exists one or more specific and material factual issues, a formal evidentiary hearing (adjudicatory in character) shall be held in the District of Columbia. The Act calls for the consolidation whenever possible of hearings held pursuant to it with those held by other agencies—again, the streamlined touch. Within 240 days of the initial application in an application area, the hearing process on applications shall be closed out. Note that hearings are to be held concerning individual applications and not on all the applications encompassed within a single application area collectively. Within 90 days of the last public hearing on a proposed license for an area, the Secretary is directed to approve or deny any application for the designated area. The total time elapsed from the start of the application procedure is thus statutorily defined as 356 days, or just under one year.

The Secretary is not given absolute discretion in determining among competing applicants which will receive the authorization to proceed within each application area. Among the declared purposes of the Act is included, "to . . . protect the interests of the United States and those of adjacent coastal States in the location, construction, and operation of deepwater ports. . . ." Section 1503(c)(3) provides that no license will be forthcoming unless "the construction and operation of the deepwater port will be in the national interest and consistent with national security and other national policy goals and objectives. . . ." It may be true, as has been noted by at least one commentator, that the phrase "in the national interest" can have little meaning in a nation with no coordinated port policy; however, once the Secretary has determined that any given applicant would "clearly best serve the national interest," issuance of a license to that applicant is sanctioned. Thus, it would seem to appear that the Secretary's first responsibility would be to determine whether any proposed port would best serve the national interest. Although the settled meaning of the phrase may yet be developed by judicial determinations, section 1504(i)(3) gives the Secretary three factors to consider in making his decision. In determining whether any one proposed deepwater port clearly serves the national interest, consideration is to be given to the

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11 Id. § 1504(c)(2).
12 Id. § 1504(g).
13 Id. § 1504(i)(1).
14 Id. § 1501(a)(3).
17 Meltz, supra note 10, at 50046.
degree to which the proposed deepwater ports affect the environment, any significant differences between anticipated completion dates for the proposed installations and any differences in construction and operation costs which may ultimately have a significant effect on the cost of oil to the consumer. If no applicant satisfies these criteria, priority in obtaining a license falls then to the adjacent coastal state, any political subdivision thereof, or any state agency or instrumentality. States, like corporations, may combine their programs and act in cooperation with each other.50 Priority is given next to persons neither engaged in producing, refining, or marketing oil nor affiliated with any person involved in such activity. Lowest priority is given to any other person, the oil industry included. Senator James L. Buckley (NY) noted that such priority scheme discriminations in favor of a government applicant or a non-oil related applicant do little to insure that the deepwater port will be constructed in a manner which "clearly best serves the national interest." Rather, he urged that each application for a given area be considered on its own merits, without arbitrary or artificial constraints.51

A further limitation on the Secretary's power over application approval was imposed by Congress in order to protect the interests of states with pending plans for construction of a deep draft channel and harbor located adjacent to a proposed deepwater port. If an application is submitted for a license to construct a deepwater port off the coast of such a state the Secretary is prevented from issuing the license pending the results of a comparison of the deep draft channel plan with the deepwater port application. Relevant factors in this comparison are the economic, social, and environmental impacts of each plan. The project best serving the national interest shall then receive approval; this provision, however, does not preclude a determination that both developments are warranted and thus subject to approval.52

Issuance of the license may be subject to any conditions which are deemed necessary to give effect to the provisions of the Act.53 This includes the authority of the Secretary to establish bonding requirements in order to ensure that removal of all components of the deepwater port will be accomplished in the event of revocation or termination of the license.54 Permits are to be issued for a maximum period of 20 years and are subject to renewal for a period not to exceed 10 years, with preferential rights of renewal given to the licensee.55 Licenses are subject to transferral if the Secretary approves, pursuant to all relevant provisions of the Act.56 Opera-

50 Id. § 1508(d).
53 Id. § 1503(e)(1).
54 Id. § 1503(e)(3).
55 Id. § 1503(h).
56 Id. § 1503(b).
tion of the port is subject to regulation as a common carrier in accordance with the Interstate Commerce Act. This will presumptively result in yet another opportunity for the government to supervise license operations.

One of the main concerns recognized by the Congress during consideration of the Act and especially articulated by representatives of coastal states was the assurance of effective input by affected states. This concern crystallized in efforts to include a state veto over proposed deepwater port development offshore of interested states. The administration bill represented quite another viewpoint from that displayed by the bill which finally received the approval of Congress. The administration bill fell short of actually empowering a state to halt deepwater port programs; the Act as passed, however, provides that applications for such facilities be forwarded to the governor of each adjacent coastal state for his approval. The Secretary shall not issue a license without the approval of the governor of each adjacent coastal state. State procedures for determining application approval or disapproval are not dealt with by the Act, thus giving the states discretion in this matter. "Adjacent coastal states" under the Act are defined as states which border upon either the Atlantic, Pacific, or Arctic Oceans or the Gulf of Mexico, and fall into one of three classes: (1) a state directly connected to the deepwater port by pipeline; or, (2) a state located within 15 miles of the proposed deepwater port; or, (3) any state to which the risk of coastal environment damage is equal to or greater than the risk posed to a state directly connected by pipeline to the proposed deepwater port.

States are favored in other areas as well, particularly in the first priority given under § 1504(i)(2)(A) to states seeking a permit to operate their own deepwater port. The Act further attempted to insure that interested states would not be entirely left out of the decision making process, as evidenced by § 1508(b)(2) providing that any interested state "shall have the opportunity to make its views known to, and shall be given full consideration by, the Secretary regarding the location, construction, and operation of a deepwater port," and § 1504(a) which seeks to insure that any regulation issued by the Secretary regarding licensing procedures will provide for "full consultation and cooperation" with any potentially affected coastal state. This last provision is subject to an interpretation as expansive as the Secretary desires to make. Certainly the argument can be made that the operation of a deepwater port situated off the coast of Georgia will have possible environmental implications for other areas of the East coast as well. Any oil resulting from a discharge might find its way into the Gulf

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57 Id. § 1507.
58 See generally, Equal Voice Hearings, supra note 8.
59 Introduced as S. 1751, 93d Cong., 1st Sess. (April 18, 1974).
61 Id. § 1508(a)(1)-(2).
Stream, conceivably having far-reaching effects. However, as a counterbalance to such possibilities the committees expressed the desire for confirmation by the National Atmospheric and Oceanic Administration that a state is an adjacent coastal state within the meaning of the Act based upon a determination that a substantial risk would confront the state. The criteria for determining the risk would be a comparison of the volume of spills now occurring from offshore lightering and other methods of oil transfer with the potential risk from the proposed deepwater port. It would appear, however, that neither quantum would be readily assessable for an area presently not engaged in the transshipment of oil. Both figures would of necessity be applied by analogy from other areas: the risk accompanying the deepwater port from a previously operational deepwater port in some other geographical locale, and the amount of oil loss now resulting from off-shore lightering from yet another location. Such artificial contrivances would do little to provide an accurate estimate of the environmental effects which could be anticipated.

The remedy sections of the Act include a large arsenal of enforcement techniques. Responsibility in this area is vested in the Secretary but the Act also contemplates civilian participation by its broad citizen suit provisions. Under § 1514, willful violators of any provision of the Act, or any rule, order or regulation issued pursuant thereto, are subject upon conviction to a maximum fine of $25,000 for each day of violation, each violation being regarded as a separate offense. In addition, available relief includes equitable relief and in rem liability of vessels used in violation of the Act for any civil or criminal fine imposed as a result. This provision is restricted to those cases in which the owners or charterers were consenting parties to the violation or privy to such violation. The statute provides jurisdiction and venue in the district courts, with jurisdiction in any district where the defendant resides or is doing business. The Attorney General may file an action for license revocation or suspension or equitable relief to redress a violation in the district court nearest to the deepwater port.

Citizen suit provisions establish the right of citizen participation in the enforcement of control requirements and regulations created under the Act. Section 1515 authorizes citizens to bring civil actions for equitable relief against any person in violation of the Act, including a government agency, and against the Secretary in case of an alleged failure to perform a nondiscretionary act. This relieves the plaintiff of the necessity of relying on agency actions as a basis upon which to bring suit, claiming agency...
abuse of authority or violation of explicit statutory authority. The district courts are given jurisdiction over citizen suits regardless of the amount in controversy or the citizenship of the parties. Final awards to citizen plaintiffs may include the costs of litigation (including reasonable attorney fees and expert witness fees) whenever such awards are appropriate. The right to maintain a citizen suit is restricted to situations in which the Secretary or Attorney General is not diligently prosecuting such a suit (although intervention as a matter of right in such cases is allowed). Also, no action is maintainable prior to 60 days after the plaintiff has given notice of the suit to the Secretary and the alleged violator. Problems often encountered in litigation of this sort involving lack of information necessary to maintain the suit are remedied by § 1513 providing for public access to a wide variety of documents and communications.

The class action provisions of the Act, granting a means of relief to all those suffering damage resulting from an oil spill, are particularly noteworthy. In case of such injury the Attorney General is granted the authority to act for any such class of injured plaintiffs; if within 90 days he has not done so, a class action may then be maintained by any member of the group. A major obstruction to maintainance of a class action of this sort was erected by the Supreme Court in Eisen v. Carlisle & Jacquelin in which it was held that a class action employing only publication notice to its members could not stand in light of Rule 23(a)(2) of the Federal Rules of Civil Procedure requiring "individual notice." Few public interest groups have the funds to personally notify each party plaintiff. In order to insure a meaningful class action provision, § 1517(i)(2) allows notice by publication in local newspapers serving the areas in which the damaged parties reside. The provisions of the Act barring a citizen suit if the appropriate agency is diligently pursuing the action and requiring 60 days notice prior to the filing of suit clearly indicate that citizen action should only be undertaken pursuant to the primary enforcement responsibility vested in the Secretary. But the citizen suit provisions are not stringent as regards the concerned citizen plaintiff and do compare favorably with such provisions found in the Clean Air Act and Water Pollution Control Act Amendments. In fact, excluding the class action notice provisions, the section was probably modeled after the citizen suit provisions in those acts. The comprehensive nature of the remedies and liabilities section of the Act underscores the concern the Congress felt towards the environmental issues involved. Such provisions, coupled with their rigid enforcement, represents the environmentalists' best hope of realizing the goal of a clean

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67 Id. § 1517(i).
70 Id. at 413.
environment. The Deepwater Port Act, with its provisions for full disclosure provides only a starting point for this effort; however, it is a starting point of substantial girth.

IV. JURISDICTIONAL BASIS

The proponents of the Deepwater Port Act expressly recognized the problems presented by the establishment of fixed structures on the high seas purportedly included within the jurisdictional ambit of the United States Government. Although it was at no time suggested that the United States was attempting to extend its exclusive sovereign jurisdiction over any area of the high seas, the practical effects of the Act dictate the formulation of a clearly defined federal posture concerning the status of deepwater port installations vis-à-vis the law of the United States.

Once such a deepwater port is constructed, be it a monobuoy or a fixed installation, the immediate effect will be the subjection of a portion of the high seas to exclusive United States control. Not only does the physical presence of the structure itself deny the use of that portion of the sea to another user, but the Act further provides that the licensee shall not permit a vessel flying the flag of a foreign state to call at or utilize the deepwater port unless, "... the foreign state involved, by specific agreement with the United States, has agreed to recognize the jurisdiction of the United States over the vessel and its personnel ... while the vessel is located within the safety zone. ... " A second requirement compels the foreign state to appoint an agent for service of process within the United States.

The result of these requirements is the subjection of foreign vessels to the jurisdiction of the United States district courts in the event of an accident or violation of the Act's provisions, even though the ship may have approached no closer than 20 miles or more of the territorial sea.

The fact that such strange possibilities exist is a manifestation of the flux which the concept of freedom of the high seas finds itself in at the present time. The constant rate of scientific progress experienced in this century has opened to man's view the exciting possibilities of exploiting the ocean floor itself. This rapid rate of scientific advancement has resulted, some believe, in a lacuna in the law. The possibility of erecting structures on the high seas miles beyond any land or territorial limits has

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17 [1974] U.S. CODE NEWS, supra note 3, at 7535-36; 33 U.S.C. § 1521 (Supp. IV, 1974) authorizing and requesting the President to enter into negotiations with Canada and Mexico in order to determine the need for intergovernmental understandings regarding deepwater port activity and to eliminate any legal and regulatory uncertainty, in order to assure that the interests of the people of Canada, Mexico, and the United States are adequately met.

72 Id. § 1518(c)(1).

73 Id. § 1518(c)(2).

only achieved viability in recent years. International law has recognized
the advent of this new technology, but in a piecemeal manner.\textsuperscript{75} This has
led, in situations confronting a state with a problem of first impression, to
a response involving unilateral action in order to provide an immediate
resolution of the difficulty.\textsuperscript{76} Deepwater ports present that type of situa-
tion. There is no rule of customary international law, nor any provision of
an international convention dealing specifically with the concept of a deep-
water port. The development of man's technical expertise has outpaced
that of his social structures; the task then, is to discover an acceptable
principle of international law which will embrace the deepwater port con-
cept by analogy.

As stated above, the concept of freedom of the seas is in a state of flux.
The speed with which this conceptual evolution is proceeding varies some-
what depending upon which part of the sea is under discussion. Recent
developments have indicated a movement towards allowing states to exer-
cise greater control than previously allowed over both the contiguous zone
and the continental shelf.\textsuperscript{77} Future developments of the law of the sea will
likely deal mainly with uses connected with the continental shelf and its
superadjacent waters.\textsuperscript{78} Thus, the development of deepwater port capabili-
ties can hardly be seen to present an issue which frustrates valid law of
the sea objectives. Furthermore, in this context it may be contended that
any principles of law dealing with such artificial installations and formu-
lated prior to an international consensus on the subject could be used as a
positive foundation upon which to base a customary rule of international
law, or at the least, provide a starting point for discussion. Whether or not
the resulting theory is regarded as "bootstrapping" will depend largely
upon its relation to precepts of codified international law.\textsuperscript{79}

\textsuperscript{75} Convention on the Continental Shelf, April 29, 1958, 15 U.S.T. 471, T.I.A.S. No. 5578,
499 U.N.T.S. 311 (effective for United States June 10, 1964). In article 2, this Convention
recognizes permissible uses involving the continental shelf for purposes related to exploitation
only. Article 9 of the Convention on the Territorial Sea and Contiguous Zone recognizes the
legality of the use of roadsteads while limiting such expansion to only that concept. Convention

\textsuperscript{76} \textit{E.g.}, in the situations presented by offshore pirate broadcasting, Panhuys and Boas,
\textit{supra} note 74; and also the establishment by the United States in the Atlantic Ocean of
"Texas Tower" radar installations up to 100 miles off the coast. Dorshaw, \textit{The International
[hereinafter cited as Dorshaw].

\textsuperscript{77} \textit{E.g.}, recent developments of the United Nations Conference on the Law of the Sea
concerning such concepts as the "Economic Zone."

\textsuperscript{78} \textit{See generally}, 69 Am. J. Int'l L. 1-76 (1975), concerned mainly with the Third Law of
the Sea Conference; State Dept. Informal Single Negotiating Text, Office of Law of the
Sea Negotiations, A/Conf. 62/WP.8/pt.II (May 9, 1975) [hereinafter cited as Informal Single
Negotiating Text].

\textsuperscript{79} Lawrence, \textit{Superports, Airports, and Other Fixed Installations on the High Seas}, 6 J.
Maritime L. and Commerce 575, 588 (1975) [hereinafter cited as Lawrence].
Two additional factors should be kept in mind. First, past understandings concerning freedom of the seas tended to deal more with those activities which could not be carried on in international waters. It thus presented a negative view concerned mostly with prohibited uses. Present trends, however, seem to emphasize permitted uses. This is a positivist oriented view dealing with an ever expanding panoply of activities which nations are recognizing as advantageous, a development probably in direct response to technological advancements. Also, United States policy in the area of the law of the sea has been directed towards claiming a narrow territorial sea while seeking to extend jurisdiction to contiguous zones for special purposes, including enforcement of customs and other laws and objectives of national security. This view envisions a case-by-case analysis to determine whether or not the extension of jurisdiction in any given case would be deemed to be within the national interest. The distinction between assertion of jurisdiction and a claim to territory bears importantly upon this point.

Traditional concepts of freedom of the seas hold that the high seas constitute a region free to all and that no nation may validly subject any portion of it to exclusive jurisdiction. This general concept has resulted in two prevailing views of what this principle entails; one view holds that the high seas are a thing that belongs to everyone (res communes). Because the high seas are a common resource subject to exclusive control by no nation it follows that no nation may utilize any portion of the high seas for other than permitted uses. These uses would presumably include all uses permitted by tradition (shipping, hot pursuit, and uses recognized by treaty, such as continental shelf exploitation, laying of pipelines, establishment of navigational aids, etc.) Res communes is a concept embodying a negative approach to the problem, an approach which is less attuned to contemporary notions of what freedom of the seas should entail as a practical matter. The opposing view contends that the high seas belong to no one in particular (res nullius); thus, all uses are permitted which do not conflict with the rights of any other user. This view then, is essentially the positivist answer to the first.

J. Colombos, in The International Law of the Sea suggests as the inevitable compromise of the alternative lines of reasoning that the high seas are common and open to all nations. If this view is taken to mean that all uses are permitted on the high seas by any nation some standard of delineation must be devised in order to limit the principle in some rational
manner. This necessity arises as a response to the overly broad ramifications presented by such a comprehensive view. Clearly, all uses cannot be permitted, for exercise of exclusive sovereignty would then be a permitted use. If this were so, freedom of the seas as both a concept and a practical matter would cease to exist—a victim of its own definition. Thus, the doctrine of reasonableness ("... in the absence of any international rules that are agreed, the obligation of any state when using the high seas is to use it with reasonable regard to other people's rights to use the high seas.") finds its justification. It is a standard by which the validity of uses permitted by Columbo's theory may be judged. Res nullius as a concept permits all uses of the sea which do not conflict with the uses by other nations. If a use does not conflict with another use, such non-conflicting use must be reasonable. Thus Columbo's theory is, as a practical matter, more in line with the res nullius concept of what freedom of the seas entails. The result of this line of inquiry leads to a conclusion that should the doctrine of res communes be adopted, the construction and operation of deepwater ports on the high seas would be an invalid exercise of sovereignty, as international law has yet to deal with the issue. On the other hand, res nullius would permit the construction and operation of such ports provided that such activity constituted a reasonable use of the sea and did not conflict with the rights of other nations. This latter view comports substantially with the doctrine of reasonableness which was used as the primary justification for the power of the United States government to regulate and permit operation of deepwater ports on the high seas.

This theory of "reasonable use" finds its justification not only in such abstract principles as res nullius but also in interpretation of Article 2 of the Convention on the High Seas which reads as follows:

The high seas being open to all nations, no State may validly purport to subject any part of them to its sovereignty. Freedom of the high seas is exercised under the conditions laid down by these articles and by the other rules of international law. It comprises, inter alia, both for coastal and non-coastal States:

(1) Freedom of navigation;
(2) Freedom of fishing;
(3) Freedom to lay submarine cables and pipelines;
(4) Freedom to fly over the high seas.

These freedoms, and others which are recognized by the general principles of international law, shall be exercised by all States with reasonable regard to the interests of other States in their exercise of the freedom of the high seas.

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84 Lawrence, supra note 79, at 583.
85 Env., supra note 4, at 139.
As interpreted, this section indicates that its authors foresaw the need to permit a broader range of uses than those four specifically listed. This analysis can comfortably coexist with the counter-argument that although the construction of a deepwater port may be seen as reasonable, the extension of federal jurisdiction and control over such areas does not clearly fall within the purview of what is reasonable. The answer to this proposition is that if it is reasonable to place such a structure on the high seas, it is reasonable to provide for its protection. Failure to allow for such protection would violate generally accepted principles of property law.

Although the deepwater ports issue provides a new application of reasonableness, the theory has gained acceptance in other areas of international law. Probably the most famous application of the doctrine occurred in the Trail Smelter Case. The case arose as a result of damage suffered in the state of Washington caused by sulfur dioxide fumes produced by the Trail Smelter located across the border in Canada. The decision, holding that Trail Smelter should be held liable for the damage it caused, recognizes the principle that a sovereign state has no carte blanche to use its territory in such an unreasonable manner as to cause injury without its borders. The tribunal stated that,

... under the principles of international law, as well as the law of the United States, no state has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties of persons therein, when the case is of serious consequences and the injury is established by clear and convincing evidence.

A state then must assume responsibility for its actions and those actions should be reasonable. Applied to the deepwater port issue, if the United States has indicated an acceptance of the responsibility for actions in this area by the passage of the Deepwater Port Act, then it may operate such ports in a reasonable manner subject to the right of a foreign state to object to such use. The reasonableness approach finds further support in the Legal Vacuum Theory. The crux of this doctrine concerns occurrences not covered by international law. It recognizes that the absence of territorial sovereignty over the high seas does not mean that international law should tolerate a vacuum of legal authority. Thus, as modern technology has created the need for and the ability to construct a deepwater port, in the absence of any generally recognized principles of law governing such activi-

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90 [1974] U.S. CODE NEWS, supra note 3, at 7535-36; Lawrence, supra note 79, at 582-84; Soons, Artificial Islands and Installations in International Law 8 (1974) [hereinafter cited as Soons]; Merchant Marine Hearings, supra note 6, at 72-73.
91 Id. at 74, 84; Soons, supra note 90, at 21.
93 Id. at 716.
94 Panhuys and Boas, supra note 74, at 332-33.
ties, a state engaged in such activity is free to extend its jurisdiction to such installations in order to prevent a vacuum of law and to prevent the inevitable damage from uncontrolled acts resulting from the complete absence of authority. This principle addresses itself to the fact that it is reasonable to regulate human activity if lack of regulation would result in anarchy. However, this would seem to be an attenuated line of reasoning, and in light of existing criticisms of the "Vacuum Theory," it may be disregarded as a justification in itself. Its value is that it suggests that states should not be compelled to await the lengthy processes inherent in the formulation of international law when confronted by a problem which demands speedy resolution.

The reasonableness approach satisfies both trends previously recognized in this section, namely (1) the trend towards denoting positive uses (what may be done rather than what may not be done) and (2) the interest of the United States in maintaining a flexible definition of those activities permitted on the high seas in order to prevent dramatic expansion of that concept. This last consideration represents a very real fear that broad assertions of jurisdiction over the high seas might lead to the demise of a free ocean should the trend gain international acceptance. Therein lies the objection to analogizing from article two of the Convention of the Continental Shelf (hereinafter referred to as the Convention). The article in section 1 provides, "[t]he coastal State exercises over the continental shelf sovereign rights for the purpose of exploring it and exploiting its natural resources." It was recognized that although this section might provide a legal basis by analogy for asserting jurisdictional control over structures connected to the continental shelf, it would be unwise to do so. Deepwater ports clearly are not devices for exploiting the continental shelf and to make such an analogy would open the door to similar extravagant claims by other nations until freedom of the seas over the continental shelf would cease to exist.

It is clear from the legislative history of the Act that Congress considered the reasonableness doctrine to be in itself sufficient grounds upon which to base extension of federal authority over deepwater ports located in international waters. Yet there are other bases upon which such jurisdiction might have been predicated. The "Protective Theory" is another viable justification for the extension of federal jurisdiction over the high seas largely ignored in legislative considerations. The theory recognizes that states have the obligation to protect both their citizens and their sovereign territories, and to accomplish this, states occasionally must deal with threats located outside their borders. The most dramatic recent example of this was Dutch action regarding "pirate" broadcasting stations located

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95 Id.
96 Merchant Marine Hearings, supra note 6, at 70.
97 See note 75 supra.
beyond Dutch sovereignty transmitting to points within the country. In justifica-
tion of their actions taken against the pirate broadcasters the gov-
ernment contended that under international law a state might validly
exercise jurisdiction on the high seas in order to protect certain legal inter-
ests. Another example is presented by the Arctic Waters Pollution Pre-
vention Act enacted by Canada. This act sets up rules concerning oil
pollution in a designated prevention zone which extends beyond Canadian
territorial seas. In response to United States criticism of such actions the
Canadian government replied that the act was "a lawful extension of a
limited form of jurisdiction to meet particular dangers. ..."100

This principle also provided the basis for United States actions during
prohibition against smugglers operating just beyond the three mile limit.
The case of The Grace and Ruby101 concerned a schooner carrying liquor
intended for smuggling into the United States. The "Grace and Ruby"
anchored ten miles off the coast and sent ashore small boats to land its
contraband spirits. The smuggling attempt was thwarted however, and
two days later a Coast Guard cutter found the Grace and Ruby, then
situated some four miles from land, and seized her. In its determination
that the act of smuggling began outside the three mile limit and continued
to shore, the Massachusetts District Court examined the legality of the
vessel's seizure on the high seas and found:

The high seas are territory of no nation; no nation can extend its laws
over them; they are free to the vessels of all countries. But this has been
thought not to mean that a nation is powerless against vessels offending
against its laws which remain just outside the three mile limit.102

The court then went on to quote Chief Justice Marshall's opinion in the
1804 case of Church v. Hubbart:103

... its [a nation's] power to secure itself from injury may certainly
be exercised beyond the limits of its territory. ... These means do not
appear to be limited within any certain marked boundaries which remain
the same at all times and in all situations. If they are such as unnecessarily
to vex and harass foreign lawful commerce, foreign nations will resist their
exercise. If they are such as are reasonable and necessary to secure their
laws from violation, they will be submitted to.104

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100 Panhuys and Boas, supra note 74, at 333; see also, North Sea Installations Act, Staats-
blad 1964, no. 447 (Neth.) reprinted in Panhuys and Boas, supra at 340-41, whose introduc-
tion reads in part, "Whereas we have deemed it desirable to make provision for protection of
legal interests. ..."


102 Marin, The Quiet Revolution: Canadian Approaches to the Law of the Sea, in THE
[hereinafter cited as Marin].

103 283 F. 475 (D.C. Mass. 1922).

104 Id. at 477.

105 6 U.S. (2 Cranch) 187 (1804).

106 Id. at 234.
The *Grace and Ruby* court went on to note that although these views have been questioned, *Church v. Hubbart* has never been expressly overruled. That remains true today.105

One objection to the "Protective Theory" is that it requires a unilateral action. Although the Executive Department maintains the position that such unilateral self-help is not a desirable precedent,106 it has seldom refused to utilize the concept when such action was found to be in the national interest.107 Another point to be made is that the "Protective Theory" requires as a prerequisite for its application the existence of an external threat or risk which must be guarded against. In the absence of any applicable treaties furnishing protection to the coastal environment from the potential effects of a deepwater port it could be maintained that the theory's application in this instance is desirable as a means of providing such protection.

The Convention on the Continental Shelf,108 while approaching the jurisdictional problem by extrapolation, fails to lead to the formulation of a theory which would effectively justify the establishment of a safety zone surrounding a deepwater port. The Act provides for the establishment of such a zone for the purpose of navigational safety subject to recognized principles of international law.109 Article three of the Convention, however, states that, "[t]he rights of the coastal state over the continental shelf do not affect the status of the superadjacent waters or high seas." It has been suggested that such a qualification renders the Convention useless as a basis of jurisdiction.110 This, of course, is in addition to the problems presented by the Convention's restrictive nature already mentioned.111 The creation of a safety zone is, however, capable of peaceful coexistence with the "Reasonableness Theory." Such difficulties illustrate the need to analogize for solutions to such problems since existing international conventions were not enacted with deepwater ports in mind.

Regardless of whether unilateral action in this area constitutes little more than a bootstrap argument, such actions are in line with the recognized trends of present international law. The Third United Nations Conference on the Law of the Sea has placed the problem of artificial islands on its agenda. The Second Committee will likely deal with artificial islands and other structures not related to resource exploration by allowing coastal control over such activities. The intention would be to provide a legal basis for such installations while insuring their operation in a reasonable

105 Prohibition's liquor-smuggling problems are discussed in Note, *Foreign Liquor—Ships Outside the Territorial Belt*, 36 HARV. L. REV. 609 (1922-23).
106 *Equal Voice Hearings*, supra note 8, at 42-43.
107 Marin, supra note 100, at 29.
108 See note 75 supra.
110 Lawrence, supra note 79, at 580.
111 Dorshaw, supra note 76, at 214-15.
manner. The position of the United States as represented by its working paper would allow coastal states the exclusive right to regulate artificial islands and other structures within its exclusive Economic Zone.

V. ENVIRONMENTAL IMPLICATIONS: OIL FEVER UNLEASHED

The construction of deepwater ports in the coastal waters of the United States and the resulting use of these waters by supertankers of 200,000 dwt or more pose tremendous environmental hazards. It has been estimated that the damage caused by a major accident involving a supertanker off the East coast could run into the billions of dollars. Twenty-four percent of the 1971 total world production of shrimp was taken from the Gulf of Mexico; consequently, a major accident in this area would involve awesome implications for its thriving seafood industry. As it is, the environmental outlook for the oceans is presently none too bright. Marine pollution may have caused the death or destruction of 30 to 50 percent of oceanic life in the last twenty years, laments oceanographer Jacques Costeau. Others foresee the possible death of life in all oceans by the turn of the century. Such predictions are steadily becoming more frequent.

In 1970, five million tons of oil found its way into the ocean, and oil either deliberately or accidentally discharged from vessels represented 47 percent of that total. There are presently 428 ships, including 100 tankers, resting on the ocean floor off the east coast containing five million barrels of oil in their tanks. Tankers deliberately pump one million tons of oil into the sea each year. Because such a great deal of oil pollution occurs on the high seas, reasonableness would seem to indicate that the most expedient method of containing this pollution would lie in efforts directed through international channels. But such efforts have in reality had little or no effect on the problem. There are at least two reasons for this. Because ocean pollution has only recently received recognition as a problem, international law has not been able to maintain pace with technological advancements to the degree necessary to provide adequate legal protection against the consequential environmental harm. There also exists the problem of perfecting and utilizing adequate supervisory capabilities in order to monitor the activities of ships far out on the high seas.

There are currently a great many international conventions which pur-

114 Meltz, supra note 10, at 50044.
115 Env., supra note 4, at 97.
117 Statistics gleaned from Joint Hearings, supra note 10, at 128-31; Kalsi, supra note 20, at 79-81.
118 Lanctot, supra note 116, at 76.
port to deal with the problem of pollution of the sea by oil. Most of them attempt to achieve effectiveness through flag and coastal state jurisdiction over offending vessels depending upon the area of the sea in which the violation occurs. The effectiveness of such techniques should be judged in light of the prediction that present rates of oil discharge (the end result of over 30 years of oil shipping activity) may well double in only five years. The problem, then, has approached exponential rates of growth under existing regimes of control. Effective action in this area will depend upon such factors as adequate antipollution regulations concerning hull design, manning requirements and permissible discharge rates, as well as agreements on effective enforcement procedure. One solution to the problem is the zonal approach whereby states would be given jurisdiction beyond their territorial seas either in a specific pollution zone or an economic zone within which states would maintain control over most, if not all, activities connected with the "economic" uses of the area. This plan would supplement the exclusive jurisdiction of the flag state outside areas of national jurisdiction. The impediment presented by the lack of effective enforcement capability on the high seas would thus be overcome.

Although the world order prefers a multilateral solution to the environmental problems caused by oil pollution, at least one commentator has advanced a thesis contending that that same world order would not condemn unilateral solutions having the necessary effects of extending coastal state interference with navigation and trade on the high seas. The Canadian Arctic Waters Pollution Prevention Act is an example. The Deepwater Port Act may well be another. The latter's starting point for dealing with the problem of the possibility of environmental damage is recognition that the problem has a twofold nature, in that both the existence of the deepwater port installation and its landbased supporting facilities pose threats to the environment. This differentiation is absolutely necessary because both operations involve a complex array of considerations meriting individual attention.

The Act begins this process by including exhaustive definitions of both the coastal environment and the marine environment in order to pro-

120 Kalsi, supra note 20, at 80.
122 Id. at 627.
125 Id. § 1502(13).
provide a basis for comprehensive coverage of all relevant components of each. The Act provides for immediate compliance with environmental standards at the time of licensing rather than at the commencement of construction.^{126} Applicants are required to demonstrate that the deepwater port will be constructed and operated using the best available technology.^{127} As a "new source,"^{128} deepwater ports will be subject to existing control strategies to attain or to maintain the national standard. The Act specifically provides\(^{129}\) for review of applications by the Administrator of the Environmental Protection Agency in order to ensure that the proposed deepwater port will conform with all applicable provisions of the Clean Air Act,\(^{130}\) the Federal Water Pollution Control Act,\(^{131}\) and the Marine Protection, Research and Sanctuaries Act.\(^{132}\) In addition, applications will be reviewed according to criteria established by the Secretary in accordance with the recommendations of the administrator of the Environmental Protection Agency and the administrator of the National Oceanic and Atmospheric Administration and after consultation with any other federal agency or department having jurisdiction over any aspect of the construction or operation of the deepwater port.\(^{133}\) Designated criteria cover both land and sea-based operations. While states must at least comply with federal standards, they are not preempted from issuing and enforcing regulations even more stringent than those provided.\(^{134}\) Of course, the state's ultimate weapon reposes in the form of its veto power. Because the Act includes its own pollution liability mechanism\(^{135}\) it may be regarded as a patch-work measure, apparently in response to recognition that both state and federal law have failed thus far to provide adequate compensation for oil pollution damage. Such piecemeal measures exacerbate the inconsistencies of civil liability coverage under United States law.\(^{136}\)

The ultimate environmental consequences to the ocean likely to be produced by deepwater ports can be roughly categorized as stemming from two phases: construction and operation. Aspiring licensees presently have three technological choices as to what type of facility to construct: (1) the monobuoy, which is an offshore mooring anchored to the ocean floor. (The

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126 Id. §§ 1504(c)(1), (f), 1505.
127 Id. § 1503(c)(5).
134 Id. § 1517(k)(1); Comments, Environmental Legislation, supra note 128, at 10021.
136 Wood, Toward Compatible International and Domestic Regimes of Civil Liability for Oil Pollution of Navigable Waters, 5 Env. L. Rep. 50116, 50120, 50145 (1975) [hereinafter cited as Wood].
tanker would be free to rotate around the buoy while discharging its cargo, thus taking advantage of prevailing winds and currents. The monobuoy is generally conceded to be the simplest and cheapest alternative, and is favored by United States planners.\(^\text{137}\) (2) The sea island, which is fastened by piles to the ocean floor and protected by a breakwater. (The tanker would be tethered alongside at bow and stern.); (3) The artificial island, which is constructed with fill and protected by a natural or man-made breakwater. The primary advantage of the artificial island over a sea island or monobuoy, would be its storage facilities. However, the artificial island is the most expensive proposal. As the amount of environmental damage to be expected varies directly with the amount of dredge and fill necessary,\(^\text{138}\) the monobuoy would be the most desirable choice from an environmental point of view. One disadvantage of the monobuoy is that in calm seas the tanker tends to drift towards it, thus running the risk of fouling the hoses and mooring lines. Proposed Coast Guard regulations to deal with environmental problems related to construction would require the submission of relevant soil data collected throughout the marine site and along the pipeline path to shore in order to determine whether such soil is capable of supporting the anticipated design load and to determine whether forces associated with storm conditions will affect the sea bed.\(^\text{139}\)

Once construction is completed and the deepwater port becomes operational, the major dangers to the environment are weather conditions, tanker accidents, discharges occurring from transfer operations, normal effluent discharges such as sewage, failure of monitoring systems, and ocean floor pipeline ruptures.\(^\text{140}\) These threats are dealt with in two ways: (1) Operation of the deepwater port will be subject to adherence to all provisions of the Act and all conditions imposed by the Secretary. Such conditions will take into account environmental criteria. Also, a right of entry is granted\(^\text{141}\) to all United States officials in order to ensure compliance. (2) A comprehensive civil liability plan\(^\text{142}\) encompassing both damages and cleanup costs is provided for in addition to other civil and criminal penalties related to license suspension and revocation. The oil spill liability provisions are patterned after the Federal Water Pollution Control Act\(^\text{143}\) and are especially strict.\(^\text{144}\) Owners and operators of a vessel which

\(^{137}\) Meltz, supra note 10, at 50044.

\(^{138}\) Merchant Marine and Fisheries Hearings, supra note 6, at 138-39.

\(^{139}\) Coast Guard Proposes Regulations to Protect Marine, Coastal Environment, 6 Env. Rep.—Current Developments 81 (1975).

\(^{140}\) Environmental Impact of Proposed Law to Vary with Location of Each Terminal, 5 Env. Rep.—Current Developments 142-43 (1974-75).

\(^{141}\) 33 U.S.C. § 1512(b) (Supp. IV, 1974).

\(^{142}\) Id. § 1517.


\(^{144}\) Meltz, supra note 10, at 50045.
discharges oil into the safety zone around the facility are strictly liable for cleanup costs and damages up to $150 per gross ton or $20 million, whichever is less, for each discharge. Should the discharge be found to result from gross negligence or willful misconduct such liability is unlimited. Should the discharge occur while the tanker is moored at the deepwater port the licensee is similarly held strictly liable to the maximum extent of $50 million unless the discharge is found to be the result of gross negligence or willful misconduct, in which case liability is unlimited. Vessel and port operators are required to report all such discharges. Failure to do so, however, incurs a fine of only $10,000 and/or one year imprisonment. Intended for use in situations involving damages and cleanup costs in excess of liability ceilings, the Act establishes a $100 million Deepwater Port Liability Fund to be funded by a fee of two cents on each barrel of oil passing through the port. Should cleanup costs and damages exceed the amount of money in the fund, the fund may borrow the balance required from the federal treasury. The fund is liable without fault for such charges. Defenses available under the Act permit the vessel or licensee to avoid liability by proving that an oil discharge was the result of an act of war or negligence on the part of the federal government in establishing and maintaining aids to navigation. If one of these defenses is established, under § 18(h)(5) the vessel or licensee may recover all cleanup costs from the fund. States are not preempted and may set even higher liabilities.

The establishment of the Deepwater Port Liability Fund (patterned after the Trans-Alaska Liability Fund) and the provisions for damages compensation constitute an attempt to internalize the present external costs of oil pollution. There are several reasons why this might be desirable. (1) The interests of justice are served when oil pollution victims, especially innocent third parties, are fully compensated. (2) Full liability for all pollution damage is necessary to deter unnecessarily dangerous or negligent conduct and to encourage a socially optimal level of precautions for the industry as a whole. (3) All costs of oil pollution should be internalized so that the market system will favor the most economical among several alternate sources of energy and methods of oil transportation. (4) A system of liability insurance coverage for unavoidable oil spills could readily be made the responsibility of the oil and shipping interests while oil pollution victims could not readily purchase such coverage. This is explained in part by the random nature of such damage. The Act further

134 Id. § 1517(e).
135 Id. § 1517(b).
136 Id. § 1517(f).
137 Id. § 1517(h)(5).
138 Id. § 1517(k)(1).
139 Comments, Environmental Legislation, supra note 128, at 10021.
140 Wood, supra note 136, at 50126.
attempts to internalize such social costs by allowing adjacent states the right to set fees in compensation for the environmental and administrative costs attributable to the construction and operation of deepwater ports, including land based facilities.\textsuperscript{153}

Establishment of a deepwater port in an area will entail substantial landside effects. Pipelines from the port to either refineries or major distribution pipelines will disturb the coastal environment, with marshlands and estuary currents likely to suffer the brunt of this activity. But aside from such results, the major effects will relate to the petrochemical industries likely to become established in nearby areas as well as the support systems, such as tank farms, which will service the ports. Natural laws of economics will tend to increase crude oil throughput once the terminal facility has been constructed. As crude processing and its directly associated industries increase, the need for service industries would increase, as would the economic justification for locating them in proximity to the petroleum processes. Economics favor petrochemical complexes which are in close proximity to refineries engaged in the production of a full range of products.\textsuperscript{154} This translates into massive investments. For instance, the total cost of the Seadock proposal (off Freeport, Texas) is estimated at $545 million. Three hundred and ten million dollars are earmarked for construction of the monobuoy and pipeline to shore. The land-based terminal will cost $80 million and the distribution system to the refineries will cost $155 million; $235 million will thus be spent on land-based development. The LOOP (Louisiana Offshore Oil Port) proposal is estimated to cost $460 million. Of that total, 67 percent will be used for onshore construction, with an additional $88 million required to connect the facility with an existing pipeline distribution system.\textsuperscript{155} An expenditure of such magnitude will have far reaching effects. The drain on the coastal resources will be tremendous. Estimates of resources which will be required by the LOOP proposal include 36,869 acres of land for refinery-related activities, an additional drain of 29.5 million gallons of fresh water daily, and daily discharges of 1.3 million pounds of industrial effluents and 27.5 million pounds of particulate matter.\textsuperscript{156} Such industrial-related growth would require new housing, increased transportation services, more schools, increased electrical demand and increased demand on existing recreational facilities.\textsuperscript{157} In other words, superport development translates into an ever-expanding spectrum of related development, all of which will further tax the region’s ecosystem. Sparsely developed regions may desire such

\begin{footnotes}
\item[154] 1 Arthur D. Little, Inc., Potential On Shore Effects of Deepwater Oil Terminal-Related Industrial Development 8 (Executive Summary 1974).
\item[155] Merchant Marine and Fisheries Hearings, supra note 6, at 45-46.
\item[156] Joint Hearings, supra note 10, at 552.
\end{footnotes}
activity. Many well-developed regions will not.\footnote{Witness the virtual abandonment of the deepwater port project in Delaware.} Nondegradation issues may be raised.\footnote{Sierra Club v. Ruckelshaus, 344 F. Supp. 253 (D.D.C. 1972).}

In any event, the Act's provisions for dealing with such possibilities are astoundingly brief given the magnitude of the problem. Aside from requiring the Secretary to judge license applications on the basis of certain aforementioned environmental standards, the main thrust of the Act in this area is set out in § 1508(c). The Secretary is prohibited from issuing a license unless the adjacent coastal state to which the deepwater port is to be connected by pipeline has developed, or is making reasonable progress toward developing, an approved management program pursuant to the Coastal Zone Management Act of 1972\footnote{16 U.S.C. §§ 1451-64 (1972).} for the area to be directly and primarily impacted by land and water development in the coastal zone resulting from such deepwater port. By thus tying the Deepwater Port Act into an existing land use program it was hoped that landside development might proceed in a socially optimal manner. The wisdom of that choice is still to be proven.

Basically, the primary thrust of the Coastal Zone Management Act is to establish a federal granting program to assist states in developing and operating land management programs for their coastal land and water resources.\footnote{\textit{FEDERAL ENVIRONMENTAL LAW} 831 (E. Dolgin and T. Guibent eds. 1974).} The legislation does not require state participation but the incentives to such action are the desire for federal funds and possibly the desire to develop a deepwater port. If the state desires to participate, the federal government will give them a planning grant, used to formulate a management program over coastal development. Once a program is approved by the Secretary of Commerce the state becomes eligible for continuing federal assistance grants of up to 66.6 percent of the program's cost. In order to obtain federal approval the state management program must contain certain substantive elements such as: (1) definition of what shall constitute permissible land and water uses within the coastal zone which have a direct and significant impact on coastal waters, (2) an inventory and designation of areas of particular concern (which might include areas such as marshlands or an area especially suited for development as a deepwater port), and (3) identification of the means by which the state proposes to exert control over land and water uses (which is probably the real thrust of the act).

The Coastal Zone Management Act is an integral part of the legal and institutional framework which will govern development on the outer continental shelf.\footnote{Id. at 832.} The National Environmental Policy Act (NEPA)\footnote{42 U.S.C. §§ 4321, 4331-35, 4341-47 (1968).} is an indispensible adjunct to the Act in that it provides a mechanism by which
to balance the benefits of resource development against the costs involved.\textsuperscript{144} For the NEPA process to be effective in performing this analysis for outer continental shelf development the costs considered must include not only possible or expected environmental harms, but also probable social and economic impacts on the coastal zone, such as increased population, cultural disruption, loss of aesthetic amenities and the need for expanded public services.\textsuperscript{145} If this process is used, onshore deepwater port-related development will certainly provide adequate means with which to effect it.

Two considerations should be noted. First section 306(c)(8) of the Coastal Zone Management Act provides that in approving a state coastal zone management program the Secretary of Commerce must determine that "the management program provides for adequate consideration of the national interest involved in the siting of facilities necessary to meet requirements which are other than local in nature." What does this less than slightly cryptic remark forbode? A representative of the Department of Commerce stated the following:

Thus, we believe that the provisions of the proposed deep water facilities bill and those of the Coastal Zone Management Act of 1972 reflect the same intent. That is, deep water port facilities and their attendant onshore development should be consistent with state planning and programs. Conversely, State plans to receive Federal approval should make provision for facilities which are required in the broader national interest. We believe that these objectives can be met through careful planning and program coordination.\textsuperscript{146}

Of course, the states retain a veto over such facilities if undesired. But such statements provide adumbration of federal coercion. Secondly, the idea of controlling land-based development through state management programs will only be as effective as the officials who implement it. The siting of facilities is a highly complex process involving developers, interest groups and numerous authorities at all levels of government. Measured in terms of environmental quality indicators the process is largely ineffective in insuring appropriate siting and design decisions.\textsuperscript{147} Development-oriented coastal zone management programs will ensure the continuation of such trends and afford small protection to those most affected.

\textsuperscript{144} Comments, The Rush for Offshore Oil and Gas: Where Things Stand on the Outer Continental Shelf, 5 ENV. L. REP. 10026, 10028 (1975).
\textsuperscript{145} Id.
\textsuperscript{146} Honorable Howard W. Pollock, Deputy Administrator, National Oceanic and Atmospheric Administration, Merchant Marine and Fisheries Hearings, supra note 6, at 200.
\textsuperscript{147} Baram, Environmental Decision-Making and the Siting of Facilities, 5 ENV. L. REP. 50089 (1975).
VI. Conclusion

The Deepwater Port Act is primarily a response to the contemporary economics of oil transshipment; yet it also recognizes that United States extension of jurisdiction over areas of the high seas must be contained within a comprehensive definition of the purposes and limits of such action. The Act is also a response to environmental problems inherent in activities of this sort.

The Act foresees deepwater port development in conjunction with permits issued by the Secretary of Transportation. Because operation of deepwater ports depends on federal approval of permit applications and continuing compliance with federal regulations, licensees are expected to conduct their operations in compliance with federal standards. Input from other sources is provided by liberal provisions regarding state authority over deepwater port development and viable citizen suit provisions.

Currently recognized tenets of the “Law of the Sea” do not specifically provide mechanisms for justifying deepwater port development beyond existing territorial boundaries. The United States chooses to justify deepwater port activity on the high seas through application of the “Doctrine of Reasonable Use,” a generally recognized principle in international law derived from article 2 of the Convention on the Continental Shelf. Other theories exist which could be applied to the problem; however, the “Reasonable Use Doctrine” best serves United States interests in this regard in as much as the application of the doctrine results in a concept of limited extension of jurisdiction beyond coastal boundaries. United States action in this regard is in line with current “Law of the Sea” trends.

Implications for the environment stemming from deepwater port development consist of possible oil pollution and other environmental dangers resulting from offshore operations as well as possible damages to coastal ecosystems resulting from landside support activity development. Continual federal and state surveillance coupled with comprehensive civil liability for oil pollution provisions are the cornerstones of efforts to ensure against overwhelming damage resulting from actual tanker and port operations. Landside development is tied into guidelines provided by the states in their plans formulated pursuant to the Coastal Zone Management Act of 1972.

Overall, the Deepwater Port Act is an ambitious attempt to grapple with a wide range of anticipated problems through a format which places heavy emphasis on the value of pre-planning. In such a relatively novel area of man’s endeavor as that dealt with by the Act, little more can be done. Faced with the need to implement some type of viable response to an impending national energy crisis, the Congress has shown an admirable desire to strike a balance between contemporary needs and the needs of future generations. Whether the two can comfortably coexist will only be determined once the actual machinery of the Act and of the deepwater ports themselves becomes operational.

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