

OUTER CONTINENTAL SHELF LANDS ACT AMENDMENTS AND COASTAL ZONE MANAGEMENT ACT AMENDMENTS

JOINT HEARINGS BEFORE THE COMMITTEES ON INTERIOR AND INSULAR AFFAIRS AND COMMERCE UNITED STATES SENATE

**Pursuant to S. Res. 45
The National Fuels and Energy Policy Study**

AND

S. Res. 222

The National Ocean Policy Study

NINETY-FOURTH CONGRESS

FIRST SESSION

ON

**OUTER CONTINENTAL SHELF LANDS ACT AMENDMENTS AND
COASTAL ZONE MANAGEMENT ACT AMENDMENTS**

MARCH 14, 17, AND 18, 1975

Serial No. 94-14 (92-104)

PART 1



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Committee on Interior and Insular Affairs**

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WASHINGTON : 1975

SENATE RESOLUTION 45

NATIONAL FUELS AND ENERGY POLICY STUDY

This publication is printed for the use of Senators participating in the National Fuels and Energy Policy Study, authorized by Senate Resolution 45 of the 92d Congress.

Senate Resolution 45, introduced by Senators Jennings Randolph and Henry M. Jackson, was amended and agreed to by the Senate on May 3, 1971. The resolution authorized the Senate Committee on Interior and Insular Affairs and ex-officio members of the Committees on Commerce and Public Works and the Joint Committee on Atomic Energy to make a comprehensive study of programs and policies required to meet national energy needs.

Subsequently, the Senate approved the addition of ex-officio members from the Committees on Aeronautical and Space Sciences, on Finance, on Foreign Relations, on Government Operations, and on Labor and Public Welfare.

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OCS LANDS ACT AMENDMENTS AND COASTAL ZONE MANAGEMENT ACT AMENDMENTS

FRIDAY, MARCH 14, 1975

U.S. SENATE,
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
AND THE COMMITTEE ON COMMERCE,
Washington, D.C.

The committees met, pursuant to notice, at 10 a.m., in room 1202, Dirksen Office Building, Hon. Ernest F. Hollings, presiding.

Present: Senators Jackson, Metcalf, Johnston, Stone, Bumpers, Fannin, Bartlett, Hollings, Mathias, and Tunney.

Also present for Interior Committee; Grenville Garside, special counsel and staff director; Daniel A. Dreyfus, deputy staff director for legislation; William J. Van Ness, chief counsel; James Barnes and Richard Grundy, professional staff for the majority; Harrison Loesch, minority counsel; and David P. Stang, deputy director for the minority; for Commerce Committee; John Hussey, director, NOPS; and Pamela Baldwin, professional staff member.

Senator HOLLINGS. The committees will please come to order.

OPENING STATEMENT OF HON. ERNEST F. HOLLINGS, A U.S. SENATOR FROM THE STATE OF SOUTH CAROLINA

Our chairman, Senator Jackson, is now chairing the ERDA hearings. We are all pressed to take action on the economic recovery program of the Government. We are temporarily setting aside the emergency bill, until it comes up for a vote, which will be momentarily. Senator Jackson and I have opening statements which I will file for the record.

[The prepared statements of Senators Jackson and Hollings follow:]

STATEMENT OF HON. HENRY M. JACKSON, A U.S. SENATOR FROM THE STATE OF WASHINGTON

This is a joint hearing of the Committee on Interior and Insular Affairs and the Committee on Commerce on pending bills dealing with Federal Outer Continental Shelf oil and gas development and its impact on the coastal zone. Because of the widespread interest in these issues we have invited all the members of the National Fuels and Energy Policy Study and the National Ocean Policy Study to participate.

During the next decade, development of conventional oil and gas from the U.S. Outer Continental Shelf may well provide the largest single source of increased domestic energy. Despite the intense and justified concern of many people over the potential economic, social and environmental impacts of OCS oil and gas development, both on the ocean and its resources, and, probably even more, onshore, there is an increasing feeling that, if done properly, OCS development may well be more acceptable environmentally than other potential domestic energy resources such as massive strip mining for coal and oil shale.

Because the OCS represents such a large and promising area for oil and gas exploration, the Congress must update the Outer Continental Shelf Lands Act of 1953, which has never been amended, to provide adequate authority and guidelines for the kind of development activity that probably will take place in the next few years. The law must be revised before any large-scale expansion of OCS leasing, particularly in "frontier areas."

Outer Continental Shelf oil and gas is owned by all the people of the United States, and the Federal Government has a responsibility to assure that it is developed in a manner which benefits all the people. At the same time, I believe the Federal Government must recognize the special impacts of Outer Continental Shelf development on those citizens living in the coastal zone.

The need for better working relationships between the Federal Government and the coastal States and for Federal assistance to coastal States impacted by Federal decisions to develop the Outer Continental Shelf are two of the major reasons why I introduced the Energy Supply Act of 1974 (S. 3221) a year ago.

Despite intense opposition from the Administration and the oil and gas industry, the Senate passed S. 3221 by a 64-23 vote.

In addition to Federal-State relationships, the other major policy issues involved are:

(1) methods of separating OCS oil and gas exploration activities from decisions to develop and produce the oil and gas;

(2) alternative leasing systems or other methods of allowing private industry to develop OCS oil and gas;

(3) improvements in the planning and execution of environmental baseline studies, monitoring studies, and preparation of environment impact statements;

(4) improvements in regulation and enforcement of OCS operating practices for safety and environmental protection including possible reassignments of responsibilities among the Federal agencies; and

(5) the extent to which industry information about the resources should be divulged to the government and to the public.

Separation of OCS exploration activity from the decision to develop and produce the oil and gas discovered is probably the most controversial of these issues. However, this principle has been endorsed by the National Governors Conference and the National Conference of State Legislatures. The governors and State legislators share my view that the people of the United States, who own these irreplaceable resources, should have a much better idea of their nature and extent before turning them over to private industry for development.

The noise level of the debate on this issue gets particularly high when the method of separation suggested is Federal exploration prior to leasing to industry.

When I voted for the OCS Lands Act in 1953 I did not believe that it was immutable. Times and conditions change. 1975 is not 1953.

The industry and the Administration must accept the fact that Congress is going to change the present leasing system. I hope that this year the Administration and industry witnesses will give us constructive suggestions for change rather than simply opposing any and all change as they did last year.

If there is no objection, I will put into the record at this time, copies of my letter to the coastal state governors together with their replies, copies of the policy statements of the National Governors Conference and National Conference of State Legislatures, and the text of each bill being considered at the joint hearings.

STATEMENT OF HON. ERNEST F. HOLLINGS, A U.S. SENATOR FROM THE STATE OF SOUTH CAROLINA

Mr. Chairman, on behalf of the Commerce Committee and the National Ocean Policy Study, I am very pleased to join you and your colleagues on the Interior Committee in holding hearings to consider several bills to reform our policies and practices for managing federally-owned oil and natural gas resources on the Outer Continental Shelf, and to protect our coastal zones in the process. I believe we will see significant legislative reforms in OCS management this year. The fine cooperation between our committees, the clear consensus for reform we saw in the Senate passage of OCS legislation last year, and the overwhelming public support for reform indicate that this is an idea whose time has come.

Without a doubt, the greatest spur to change in OCS practices has come inadvertently from the present and previous Administrations, as a result of their proposals to lease this year as much as 10 million acres of offshore lands, including acreage in the Atlantic, the Gulf of Alaska, and the Pacific off southern California. I do not quarrel with the desire of Presidents Nixon and Ford to begin as soon as possible to learn the extent of the oil and gas resources in these frontier areas. I am not a proponent of delay. But I do quarrel with the ill-conceived program for 1975. An analysis of the Administration's program prepared for us by the staff of the Office of Technology Assessment reveals:

1. The Department of the Interior's proposed leasing program for 1975 in the Atlantic and other frontier areas is based on woefully outdated projections of the resource base, the future demand for oil and gas, and the movement of oil prices.

2. The Department of the Interior has grossly inaccurate notions about the concerns of the people of coastal states on offshore oil leasing policy.

3. The Department of the Interior is using "pie-in-the-sky" estimates of the oil industry's capability to explore and develop a vast quantity of offshore lands in a timely and efficient manner.

4. And perhaps most damaging of all, the Department of the Interior is undermining the basic free enterprise system Secretary Morton claims to be protecting by virtually guaranteeing lack of competition in offshore bidding.

Mr. Chairman, at this time I would like to submit a copy of the full OTA staff study into the hearing record.*

Fortunately, there are alternative ways to approach the frontier Outer Continental Shelf so that the interests of the coastal states and the American people who own the resources are fully protected. The root of the current problem seems to be that we make key decisions to lease on the basis of very little resource information, and then later, when we know the extent and location of the resources, we have no opportunity for public involvement in the critical decisions about what rate of production to follow, where and how to bring the oil ashore, and what onshore facilities to provide. I believe the answer to this dilemma is to keep the resources in public ownership until we know how much oil and gas are in the frontier areas. We can learn these facts through a program of government-sponsored exploration, conducted mainly by contract with private drilling companies, as proposed in my bill, S. 426. We can begin exploring right away and only delay the actual *leasing* of offshore lands until later.

By conducting and paying for exploration with federal funds, the government and the taxpayers would be assuming some new risk. There is the likelihood, of course, of drilling dry holes along with productive ones. But this risk isn't as great or as new as it seems, because when the oil companies drill dry holes they get to write them off on their corporate income tax returns, thereby transferring much of the expense to the taxpayers through lost revenues. I am convinced that the public would find a small additional risk acceptable because the potential benefits are high and the alternatives are so clearly unsatisfactory.

The chart on the wall indicates a feasible schedule for undertaking a government-contract exploration program in new areas of the OCS. This schedule demonstrates that the new program need not cause any delay in going into the new areas. The current leasing program being promoted by the Administration is currently bogged down in litigation with the States, and the potential for further delays on account of environmental opposition is great. On the other hand, with broad public support, government exploratory drilling could be underway by late 1976.

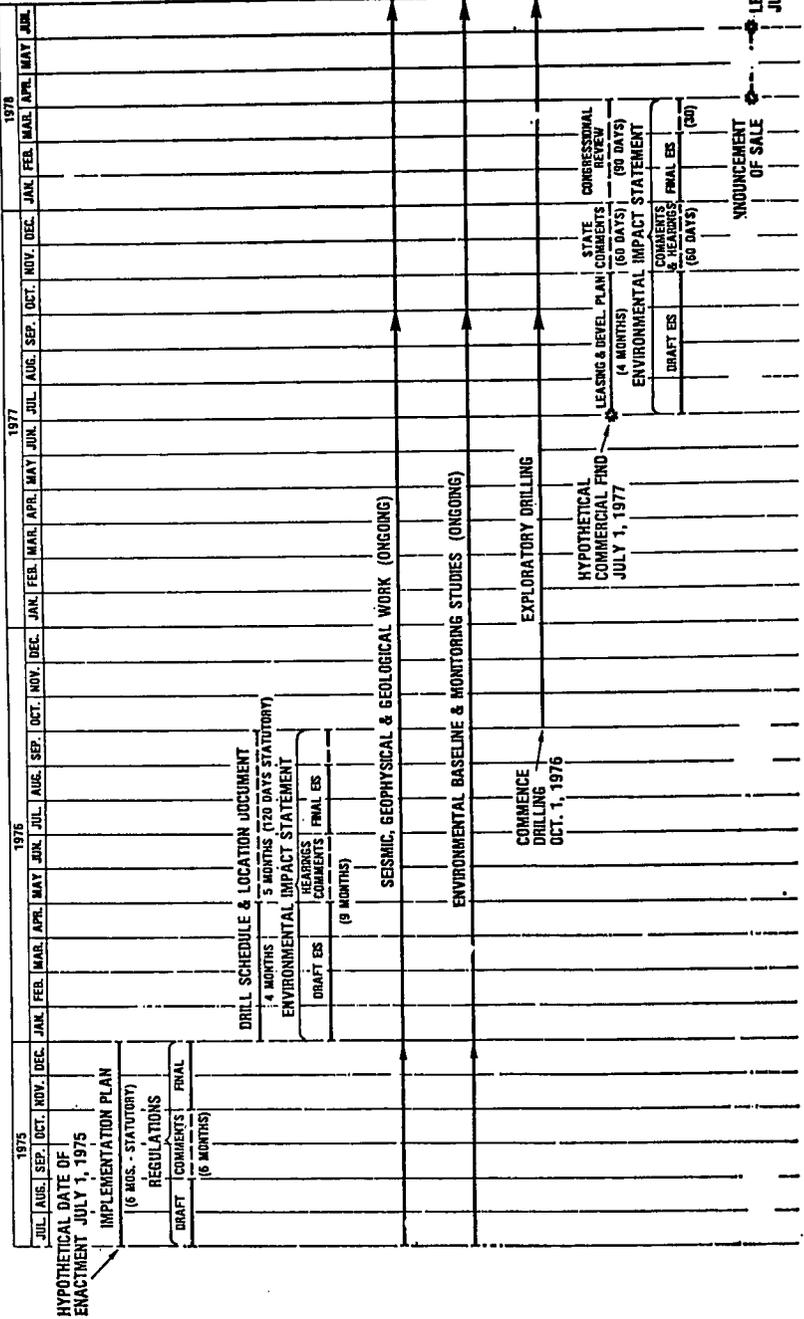
The interests of the coastal states must be protected by providing them with financial assistance to plan for and cope with the onshore facilities and public services that offshore oil and gas development will require. The idea of a fund to assist these States was incorporated in the OCS bill that passed the Senate last year. This session I am proposing to place the Coastal Impact Fund under the administration of the Secretary of Commerce through NOAA's Coastal Zone Management Program. That program is a viable, broadly supported effort in comprehensive planning by States, with Federal matching funds, for development and preservation of the coastal zones. S. 586 would amend the Coastal Zone Management Act of 1972 to set up a fund of \$200 million annually to assist the

*The Office of Technology Assessment staff study was retained in committee files.

States in dealing with the results of energy resource development or energy facility siting along the coasts. It would also require Federal leasing of OCS lands to be certified as consistent with approved State coastal zone management plans.

Mr. Chairman, the key to this issue is the fact that these are public resources, owned by all the people and managed for the people by their government. We do not propose to take away any rights from the oil companies. We simply propose to ensure that the privileges enjoyed by the companies when they develop and produce public resources are in the public interest. These hearings will give us an opportunity to refine our proposals in response to the many voices of local, State and Federal government as well as industry and citizens' organizations. I expect spirited debate during our hearings, and I look forward to early Senate passage of amendments to the Outer Continental Shelf Lands Act and the Coastal Zone Management Act, with the substantial help of the views of the many witnesses we will hear in these hearings.

IMPLEMENTATION OF A FEDERAL EXPLORATION PROGRAM UNDER S. 426



Senator HOLLINGS. Do any of my colleagues wish to make an opening statement?

**STATEMENT OF HON. J. BENNETT JOHNSTON, A U.S. SENATOR
FROM THE STATE OF LOUISIANA**

Senator JOHNSTON. Mr. Chairman, I would just like to say that I am very pleased to get these hearings underway and look forward to hearing what the Secretary has to say. The question of development of the Outer Continental Shelf is as important to this country and its energy needs as any single question, certainly on the short run.

I think one of the reasons that we have not gotten the pace of development in the Outer Continental Shelf is because of the natural resistance of the coastal States to allow their Outer Continental Shelf to be developed with the attendant environmental risk not only offshore but onshore.

Their feeling, as they look at the example of those coastal States that have development, such as Louisiana where they can see that offshore development and the onshore impact and the costs that it makes to the State, they see that example and they don't want it.

I think that the kind of approach that we had last year, Mr. Chairman, in that bill that we jointly worked on that would allow some recompense for the coastal States, I think that kind of approach will have to be taken. I look forward to hearing the Secretary's testimony on that. I know he is attuned to that need and to the need, not only to develop the Outer Continental Shelf, but to assure the cooperation of the coastal States. Thank you very much.

Senator HOLLINGS. Thank you, Senator Johnston.

I would like to insert in the record a statement by Senator Stevens.
[The statement of Senator Stevens follows:]

STATEMENT BY SENATOR TED STEVENS
REGARDING S. 130
BEFORE A JOINT COMMITTEE HEARING
OF THE INTERIOR COMMITTEE AND THE
OCEAN POLICY STUDY COMMITTEE

Mr. Chairman, it is a pleasure to testify regarding S. 130, a bill I introduced to authorize revenues from leases on the Outer Continental Shelf to be made available to coastal and other states.

This bill would distribute the royalties and other revenues from Outer Continental Shelf lands to the adjacent coastal state, 25 percent; the other states, 25 percent; and the U. S. Treasury, 50 percent. Currently these revenues from Outer Continental Shelf lands are not shared with the states but go directly to the U. S. Treasury. S. 130 would correct this deficiency.

On most other public lands producing royalty revenues owned by the Federal government, a revenue sharing plan is already in existence which requires that a portion of these revenues be distributed to the state in which the lands are located. This schedule is set forth at 30 U.S.C. 191.

For years, many states have sought a system for distributing royalty revenues from Outer Continental Shelf lands. This Congress several bills have been introduced on this subject.

The need for revenue sharing is clear. Although oil, gas, and other minerals are located within Federal lands, the Outer Continental Shelf, the adjacent state provides considerable governmental services to the industries and people engaged in exploration and production. But the state government affected receives no share of the royalties. This is particularly unfair in view of the fact that states on which royalty producing Federal public lands are located share in such royalties.

Mineral exploration and development, whether on Federal public lands or Outer Continental Shelf lands, is a cooperative venture. Private industry, state government, local government, and the Federal government all must assume some of the burden and should be entitled to a fair share of the benefits. Currently, since all OCS Federal royalties are now deposited in the General Treasury of the United States, the adjacent coastal states must bear an unfair burden.

The funds involved are not inconsiderable. The total Outer Continental Shelf revenues, including royalties, bonuses, and rentals for 1973 totaled almost \$3.5 billion. In 1972, the figure was over \$2.5 billion. These figures do not reflect the

very considerable royalties that will accrue after oil and gas production begins on the Outer Continental Shelf in other areas. The Council on Environmental Quality in their April report to the President estimated that the Gulf of Alaska has a higher potential yield of oil and gas than any of the other areas studied. The report also noted the environmental, social, and economic problems that would confront Alaska, if and when these vast resources in the Gulf of Alaska are developed.

My bill will, for the first time, provide that royalties will be shared directly with the other non-adjacent states--inland as well as coastal. It provides a fair revenue sharing formula and will be easily administrable. I also noted that the Review Committee of the National Academy of Sciences and the National Academy of Engineering while analyzing the recent report of the Council on Environmental Quality noted the need for some form of revenue sharing from development of the Outer Continental Shelf. The committee opined:

...that royalties and/or bonuses, whichever are applicable, should be distributed as benefits to those by whom the costs are borne. Because many of the costs of environmental protection and degradation are incurred locally, some portion of the dollar royalty benefits of OCS development should be returned by the Federal Government to these locales to offset coastal planning, regulatory, and other associated costs.

As Governor Hammond indicated in his testimony before this committee, OCS development in Alaska means new towns and development in places where there is none existing. This is vastly different than in some areas in the "Lower 48" where existing transportation networks and physical facilities and services currently exist.

One other area of concern that has recently come to my attention that I would like to emphasize today is the necessity of any legislation in this area providing for a direct payment to the local county, borough, or political subdivision that will bear the direct focus of the on-shore impact. It may not be sufficient to assure that these revenues go directly to the affected state. Perhaps it is necessary in any legislation adopted this Congress to insure that the affected county, borough, or political subdivision be assured the revenues necessary to provide for the on-shore impact caused by OCS development.

Mr. Chairman, we must also be concerned with making sure that the affected states are included in the decision-making process concerning OCS development. This type of partnership as well as a fair division of the OCS revenue is necessary to insure prompt and orderly development of our vast OCS resources.

Mr. Chairman, I would like to include at the end of my remarks a table of the Outer Continental Shelf receipts for fiscal years 1953-73.

OUTER CONTINENTAL SHELF REVENUE AND PRODUCTION VALUE--
 PERCENTAGE CUMULATIVE REVENUE OF CUMULATIVE PRODUCTION
 VALUE, CALENDAR YEARS 1953-73

| Year | Royalties | Total revenue |
|----------------------|------------------------------|-------------------------------|
| All States: | | |
| 1953 | \$ 967,892 | \$ 2,358,172 |
| 1954 | 2,748,977 | 147,660,265 |
| 1955 | 5,140,006 | 117,197,082 |
| 1956 | 7,629,383 | 11,715,526 |
| 1957 | 11,391,245 | 14,840,216 |
| 1958 | 17,423,878 | 20,150,076 |
| 1959 | 26,538,977 | 118,828,715 |
| 1960 | 37,095,301 | 232,781,831 |
| 1961 | 47,920,332 | 51,345,414 |
| 1962 | 66,096,334 | 564,569,574 |
| 1963 | 76,999,225 | 98,963,285 |
| 1964 | 88,400,230 | 194,939,272 |
| 1965 | 102,862,540 | 146,445,376 |
| 1966 | 136,987,537 | 354,465,657 |
| 1967 | 157,607,609 | 675,859,202 |
| 1968 | 201,136,931 | 1,558,052,293 |
| 1969 | 240,090,666 | 362,029,240 |
| 1970 | 282,494,568 | 1,237,527,860 |
| 1971 | 350,042,488 | 456,012,307 |
| 1972 | 363,556,339 | 2,624,957,875 |
| 1973 | <u>401,126,114</u> | <u>3,494,981,440</u> |
| TOTAL, ALL STATES | \$2,625,000,000 ¹ | \$12,577,000,000 ¹ |

¹Rounded off to nearest million.

Senator HOLLINGS. We, of the Committee of Commerce, are grateful for the chance to sit and have joint hearings on these matters to expedite consideration by the committees and by us as Senators.

With that said, we welcome as our witness this morning the distinguished Secretary of the Interior, Secretary Rogers Morton. Secretary Morton, if you would identify your colleagues for the record and proceed as you wish. We are glad to have you.

STATEMENT OF HON. ROGERS C. B. MORTON, SECRETARY OF THE INTERIOR, ACCOMPANIED BY ROYSTON HUGHES, ASSISTANT SECRETARY; DAVID LINDGREN, DEPUTY SOLICITOR; MONTY KLEPPER, OFFICE OF THE DIRECTOR OF THE GEOLOGICAL SURVEY; AND DARIUS GASKINS, DIRECTOR, OFFICE OF THE OUTER CONTINENTAL SHELF

Secretary MORTON. Thank you, Mr. Chairman, and members of the committee. I have with me this morning Assistant Secretary Hughes of the Department, who has our budget and program area. I have the Deputy Solicitor, Mr. David Lindgren on his right. On my left, I have Mr. Monty Klepper who is from the Office of the Director of the Geological Survey and on his left, Mr. Darius Gaskins, who is Director of our Office of the Outer Continental Shelf. He works for Mr. Hughes and is totally involved in the Outer Continental Shelf matters.

First, let me say Mr. Chairman, that I regret that Senator Jackson is not here because I think the work he has done in the development of S. 521 is exceedingly commendable. The bill has been thought through well. Most of the things that are authorized in this bill are things that we already have the authority to do and in many cases, are doing.

We have some disagreement over some of the features. I think it is a little too early in the legislative process to totally embrace it. We know that bills of this magnitude that go through both houses of Congress often get changed a great deal. Nevertheless, I think that what the chairman of the great Committee on Interior and Insular Affairs in the Senate has done, is going to be a great contribution to our work.

I welcome this opportunity to meet with you and discuss the future development of energy resources on the Outer Continental Shelf. The scope of the bills you have before you and the fact that joint hearings are being held reflect, I think, an appropriate focus on the range of issues raised by the prospect of accelerated OCS development.

Comments directed specifically to the bills before your committees have been provided separately in my letter to you. My statement today is directed toward the basic issues that you have identified.

[See p. 17 for Department letter referred to above.]

Secretary MORTON. You are all familiar with the general case for accelerated OCS leasing, in terms of the energy and economic needs of the country. Let me just say that I think the reduced dependence on imports and the secure supplies of oil and gas that are essential to the economic well being and security of our Nation will require greatly increased efforts to develop the energy resources of the Outer Continental Shelf during the next 10 years. The question before us today is how can we undertake this effort in a responsible fashion—protecting the public's interest in the development of their resources, giving due consideration to the environmental quality of our coastal communities and permitting those States most directly affected by

OCS development to have commensurate participation in decision making processes.

OCS development and fair market value. The public has a right to expect a fair price for the rights to commercial development of resources in the public domain. In part, this is a matter of information.

Through purchase of data on the open market and receipt of data from lessees, the U.S. Geological Survey has built up an inventory of geophysical and geologic information that equals or surpasses that of any firm or group of firms bidding for OCS leases. Regulations we have proposed would grant the Survey access to this data without payment, through receipt of information gathered under exploration permits and leases on the OCS.

Since March 1974, the geophysical and geologic data has been integrated into an improved tract evaluation and bid rejection system. A Monte Carlo simulation model is used to estimate the value of each tract just prior to a lease sale, thereby establishing minimum acceptable bid levels. Since the inception of this system, approximately 16 percent of the high bids offered have been rejected as inadequate.

Beyond our own best estimate of a tract's value, we rely on competitive auctions to ensure receipt of fair market value. We have undertaken a number of efforts to increase the competitiveness of our lease sales:

A proposed ban on joint bidding among major oil companies, proposed data disclosure regulations that would make public all geologic data gathered under OCS leases, a royalty bidding experiment in lease sale No. 36 to assess the impact of reduced front-money requirements on competition in bidding, a computer simulation analysis of alternative bidding systems, royalty bidding, bonus bidding with increased royalty rates, net profit payments in lieu of royalties, and deferred bonus payments, to assess the possibilities for reducing front-money requirements without unduly increasing the probability that production will be lost or delayed downstream.

The objectives of any bidding system must be to (a) insure receipt of fair market value, (b) provide incentives for prompt and thorough development, and (c) open access to the OCS for all firms capable of working leases in an environmentally responsible manner. Our analyses to date indicate that those objectives are not always mutually compatible and that striking an appropriate balance may require different ground rules in different areas. I expect to have any necessary changes in the bidding ground rules established under current law and in time to affect lease sales in the frontier areas.

PROTECTING THE ENVIRONMENT

Under the direction of the Bureau of Land Management, we have initiated a major new environmental study program. The first phase is underway and involves going out into the frontier areas to assess their current biologic, physical, meteorologic, chemical and geologic conditions.

Establishment of this benchmark of oceanographic conditions will permit us to later measure the cumulative effects of offshore development. The research also aids us in the preparation of site-specific environmental impact statements, selection of tracts for sale and the development of special lease stipulations.

Once exploration and development get underway in any area, an environmental monitoring program is initiated. This program involves a careful analysis of all the factors that go into establishing the initial environmental benchmark for an area. Careful monitoring and assessment of changes in the environment will permit prompt action on any necessary corrective measures.

In addition to the benchmark and monitoring efforts, special studies are being conducted on spill trajectories, toxicity of potential pollutants and the socioeconomic impact of offshore development.

Funding for the overall environmental studies program is \$20.5 million in fiscal year 1975 and we are seeking \$44.7 million in fiscal year 1976.

I want also to emphasize the efforts that the U.S. Geological Survey has made to improve its safety program. Since the Santa Barbara oil spill, six new OCS operating orders and nine revised orders have been issued, two new orders and four revisions are currently in process, we are seeking public comment on prospective operating orders for the Gulf of Alaska, Bering Sea and Atlantic OCS areas, and we have increased the total inspection staff from 12 to 126.

Our commitment is to have operating standards that provide for at least as much safety and pollution prevention and control as the standards of adjacent coastal States.

In addition to internal studies, safety management studies have been conducted by a team of specialists from the National Aeronautics and Space Administration, a committee of the National Academy of Engineering, and an interdisciplinary team directed by the science and public policy program at the University of Oklahoma. Geological Survey has reviewed these studies and acted promptly to integrate relevant recommendations into its ongoing safety program.

A safety alert system has been established to immediately notify all operators of failures and accidents in an area so they can take appropriate action to prevent similar accidents from occurring on their tracts.

The results of Geological Survey's continuing efforts to improve its safety program are now a matter of record. In the six years that have elapsed since the Santa Barbara spill, more than 5,000 wells have been drilled on the OCS and the number of fixed structures has increased from 1,575 to 2,050. During this period, there have been only three incidents of environmental damages from offshore operations, none of major impact. A very small probability of a major spill will always remain, but the know-how and the procedures exist now for greatly decreasing this probability and containing the effects of any spills that do occur.

STATE PARTICIPATION

Development of the energy resources on the Outer Continental Shelf will provide substantial benefits to the entire Nation in terms of secure supplies of oil and gas. However, we recognize that there are risks and potential costs associated with offshore development which will be faced primarily by those States and communities off whose shore the development will take place. Understandably, these States and these communities have a very special interest in the conduct of the OCS leasing program.

Let me first indicate where we have already provided for State participation in the leasing process.

The design and conduct of the studies I mentioned earlier in discussing the environmental studies program are carefully reviewed by the OCS Research Management Advisory Board. The coastal States are represented on the board along with the Environmental Protection Agency, the National Oceanographic and Atmospheric Administration and agencies within the Interior Department.

Approximately 1 year prior to the target date for any OCS sale, the Department publishes in the Federal Register a request for tract nominations. In addition to industry, the States and general public are asked to designate tracts in a broad offshore region that they think should or should not be offered for lease.

The information received in the nominations process is used to make a tentative selection of tracts to be considered for a scheduled lease sale. Before making this tentative tract selection, we will provide to the adjacent States information on the tracts that did receive nominations. We, in fact, have already done this with Governor Hammond and his staff regarding the proposed sale in the Gulf of Alaska.

Once a tentative selection of tracts is made, these tracts are subjected to intensive environmental assessment in the preparation of a site-specific environmental impact statement. California was asked to support State officials to participate in preparation of the impact statement for the proposed sale in southern California and continuing State participation did occur. Many of the Atlantic coast Governors have also designated members of their staff to coordinate State participation in preparation of future impact statements for the Atlantic as well as in other aspects of the OCS program. This kind of State involvement, in addition to any testimony at public hearings or written comments on a draft impact statement, is essential to thorough preparation of environmental impact statements.

Subsequent to preparation of the final environmental impact statement for any given sale, the potential resource value, environmental hazards, and conflicting land use issues are summarized and provide the basis for final selection of the tracts to be offered in the sale. During my recent meeting with the Atlantic coast Governors, I committed myself to discussing these issues with the Governors before making a final tract selection for any OCS sales in the Atlantic. This commitment stands for all OCS frontier areas.

State participation in the OCS leasing program extends beyond the point of sale. Geological Survey personnel in the field routinely consult with State geologists on the development and revision of OCS operating orders and will continue to do so as we move into new areas.

Actual development on any tract cannot take place without prior departmental review and approval of development plans. In the future, the Coastal Zone Management Act may be interpreted as requiring that any OCS development plans to be approved by Interior must first be reviewed by affected coastal States to check for consistency with their coastal zone management programs. This, along with State and local jurisdiction over pipeline right-of-ways and refinery siting, should provide substantial leverage for the States in controlling onshore development associated with activities offshore.

I think it is clear that a concerted effort has been made to provide coastal States with access at key points throughout the OCS leasing process. There are at least two further steps these States would like us to take.

First, the National Governors Conference has called for a formal separation of decisions to lease in an area and to allow actual development in that same area. Beyond current procedures, this would involve deferring approval of any development plans on a field or related group of fields until the economic benefits and environmental costs of developing that particular area are weighed by the Department in consultation with the affected coastal States.

I support the objectives of the Governors conference proposal in principle and have asked my staff to determine the administrative steps necessary to put the policy into force without introducing undue delay in development of the Nation's energy resources. Our solicitor has informed me that such objectives could be accomplished under current provisions of the OCS Lands Act.

Second, coastal States have expressed an interest in some form of OCS revenue sharing. They feel that they will face a present and perhaps continuing need for financial assistance if OCS development takes place off their shores—assistance for land use planning and increased provision of public facilities and services. Planning funds are being provided through the coastal zone management program in the amounts of \$10 million in fiscal year 1975 and \$14 million in fiscal year 1976. Beyond this, we are actively developing a number of revenue sharing options—ranging from impact aid grants to formula grant revenue sharing—to assess the question of potential State and local needs and the costs of various mechanisms for responding to those needs. However, we have no recommendation to make at this time.

Should we decide to go ahead with some kind of OCS revenue sharing, legislation would be required. The administration is also preparing an oilspill liability bill.

Apart from these two matters, a responsible accelerated OCS leasing program can be and is being developed under the OCS Lands Act of 1953.

That concludes my prepared statement, Mr. Chairman. I would like to simply add that yesterday I had a long and complete discussion on the whole matter of revenue sharing with the President and members of his staff at the White House. Also with other members of the administration. He is very anxious that we proceed with our work toward developing different types of options that he can look at and also, of course, this has to be dovetailed with actions that will be taken by the Congress that will affect OCS revenues and OCS activity.

So I can say that we are very much involved at the moment in discussions of various forms of revenue sharing or methods by which the States can be compensated for out-of-pocket impact expenses that they would have, either at the planning phase or at the development phase. I will be glad to answer any questions.

[The letter referred to on p. 12 follows:]

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., March 13, 1975.

Hon. HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: This responds to your request for the views of this Department concerning several bills which deal with the energy resources of the Outer Continental Shelf, S. 521, S. 426, S. 81, S. 130, and S. 470. Also included herein are our views on S. 586, which is before the Committee.

We recommend that none of these bills be enacted, since appropriate action with respect to OCS energy resources can be taken under existing law.

Our present energy needs require a strong program to develop the oil and gas resources of the Outer Continental Shelf, where this can be done with reasonable protection of environmental values and without other seriously undesirable impacts. More specifically, we must move ahead with exploration, leasing and production on those frontier areas of the OCS where the environmental risks are acceptable. In carrying out this program, we fully appreciate the need to meet the legitimate concerns of affected individuals and organizations. The program will be carried out in close cooperation with coastal States in their planning for possible increased local development.

I. THE BILLS

S. 521 is similar to S. 3221 as passed by the Senate in the 93rd Congress, except that it does not contain provisions similar to those in sections 303 and 304 of S. 3221 dealing with an oil spill liability study and a fuel stamp study.

S. 521 would require the Secretary of the Interior to undertake a program of promoting petroleum production from the Outer Continental Shelf subject to new environmental and safety requirements. The Outer Continental Shelf Lands Act would be amended to declare that United States policy is to make available for leasing as soon as practicable all OCS lands determined to have geologically favorable potential and be capable of developing without undue environmental harm. To carry out this policy the Secretary would be required to develop a leasing program, specifying the size, timing and location of leasing activity, that will best meet energy needs for the 10-year period following approval. The program would be subject to certain criteria directed toward overall resource management, geographic decentralization of leasing, receipt of fair market value for public resources and assuring that to the maximum extent practicable areas with less environmental hazard are to be leased first. The Secretary would have to prepare estimates of appropriations and staffing and an environmental impact statement, and would have to coordinate the program with management programs being developed in the States or approved pursuant to the Coastal Zone Management Act of 1972. An open nomination procedure would be established for areas to be leased or excluded from leasing. The bill specifies matters to be included in the environmental impact statement for leased areas and authorizes the Secretary to obtain all information from public or private sources necessary to make evaluations required by the Act. It would also authorize setting aside in certain areas National Strategic Energy Reserve status.

The Secretary would also be required to undertake a major OCS oil and gas survey. The Secretary, in cooperation with the Secretary of Commerce, would be required to make extensive topographic, geological, and geophysical maps available 6 months prior to the submission of bids. No part of the survey and mapping program would be considered a major Federal action under the National Environmental Policy Act of 1969 except drilling exploratory wells. S. 521 also requires that the Department of the Interior and the National Oceanographic and Atmospheric Administration do environmental baseline and monitoring studies prior to any new leasing on the OCS. The Secretary would also be authorized to obtain from any lessee any existing data, excluding interpretation of such data, about the oil and gas resources in the area subject to the lease. Persons holding leases or permits for oil or gas exploration or development on the OCS would be required to provide the Secretary with pertinent information concerning the area which the lease or permit covers. In addition, the Secretary would be required to carry out a research and development program to improve technology related to development of OCS oil and gas resources.

The bill provides for a safety and environmental protection program which would include (i) safety and environmental standards for equipment used in OCS exploration, development and production, (ii) equipment and performance standards for oil spill cleanup plans and operations, and (iii) a safety regulation enforcement program which includes specified Federal inspection of OCS operations. Issuance and continuance of leases would be conditioned upon compliance with such regulations. The bill would also require all new oil and gas operations to use the best available technology whenever failure of equipment would have substantial effect on public health, safety, or the environment.

A standard of strict liability for oil spill damages would be imposed on leaseholders except where damage is caused by war or the negligence of the Government or by the negligent or intentional action of the damaged party. The bill would also establish an Offshore Oil Pollution Settlements Fund which would provide for the payment of all damages sustained by any person as the result of discharge of oil or gas from any operations authorized under this Act. The maximum amount of strict liability for claims arising out of one incident would not exceed \$100 million.

Section 8 of the Outer Continental Shelf Lands Act would be revised to specify that bidding for OCS leases on a "net profit" basis is allowed, in addition to bonus bidding, but royalty bidding would be excluded. The bill would also permit the Secretary to sell Federal royalty oil by competitive bidding and would prohibit him from continuing leases which would otherwise terminate, unless there is a reasonable assurance of production from such leases within the period of an extension. Additional provisions are included to assure full development and maximum production from OCS leases, including a General Accounting Office audit of shut-in wells, Secretarial unitization or cooperation or pooling agreements, and review authority for development plans.

Ten percent of OCS revenues would be paid into a newly created Coastal States Fund, subject to a \$200 million per year maximum. The Secretary would be authorized to make grants from the Fund to coastal States to ameliorate adverse environmental effects and control secondary social and economic impacts associated with development of Federal OCS energy resources. The Secretary of Commerce would establish requirements for grant eligibility, and such grants would be administered in proportion to the effects and impacts of the offshore oil and gas exploration, development, and production on such States.

The bill would also amend section 8 of the Outer Continental Shelf Lands Act, as amended, by adding a provision giving the Governor of an adjacent State the authority to request postponement of lease sales for up to 3 years, if he determines that such sale will result in adverse environmental or economic impact or other damage to the State. The Secretary could provide for a shorter postponement or deny the request for the postponement and the Governor of the aggrieved State would have a right of appeal from any decision made by the Secretary to the National Coastal Resources Appeals Board established pursuant to the bill.

The Secretary would also be authorized to negotiate interim agreements to permit energy resource development prior to final judicial resolution of disputes relating to such resources. The President would be authorized to establish procedures for resolution of international or interstate boundary disputes.

S. 426, the "OCS Land Act Amendments of 1975," has as its purpose the establishment of a policy for the management of oil and natural gas for the OCS and the protection of the marine and coastal environment. The bill is similar to S. 521. The Secretary would be required to develop a leasing program, specifying the size, timing and location of leasing activity that will best meet energy needs for the 10-year period following approval, subject to similar criteria. However, S. 426 requires the submission to Congress of a leasing and development plan within 90 days of offering a tract for lease, and places a moratorium on all leasing where there has been no previous development or where it would be environmentally hazardous until a Federal program is implemented and Congress has concurred by silence with the development plan.

Like S. 521, S. 426 also authorizes an open nomination procedure for areas to be leased or excluded from leasing. The procedure would be carried out by the National Oceanographic and Atmospheric Administration. The bill also specified matters to be included in the environmental impact statement and authorizes the collection of information necessary to make evaluation.

S. 426 would also revise the bidding procedures on OCS leases to include, among other things, net profit bidding. Like S. 521, it would provide for research and

development and the issuance of safety regulations for production within the OCS and it has similar oil spill liability provisions. The bill would also establish a comprehensive exploration program with no exploratory drilling to be done by any one other than the U.S. Government prior to the award of a lease, and with the requirement of an Environmental Impact Statement. S. 426 is also similar with respect to provisions for safety (except greater authority is given to the Coast Guard), strict liability, an Offshore Oil Pollution Settlement Fund, and a Coastal State Fund. There is also the same citizen suit provision as S. 521. S. 426 also provides a similar provision giving authority to a Governor of a coastal State to request postponement of lease sales for up to 3 years, but provides that conflicts between the Secretary and coastal State's Governors be resolved by Congress rather than an Appeals Board.

S. 426 differs from S. 521 in that it provides minimum criteria for content of the required leasing and development plan including certification of its consistency with provisions of the Coastal Zone Management Act; requires the proposed leasing and development plan to be submitted to the Governors of affected coastal States 60 days prior to submitting the plan to Congress, requires that no geological or geophysical exploration can be done without a permit issued by the Secretary, and requires new safety regulations within a year of enactment of the Act.

S. 81 would amend section 8 of the Outer Continental Shelf Lands Act to permit the Governor of any coastal State to request postponement of any lease sale for a maximum of three years. S. 81 is similar to section 210 of S. 521 except that it applies only to coastal States whose lands are within 300 statute miles of the lands to be leased. The Secretary of the Interior could grant the request for postponement, provide for a shorter postponement or deny the request. The Governor could then appeal the Secretary's decision to a newly created National Coastal Resources Appeals Board within the Executive Office of the President which could overrule the Secretary.

S. 130 amends the Outer Continental Shelf Lands Act (43 U.S.C. 1338) to provide that 25 percent of all rentals, royalties, or other sums paid to the Secretary of the Interior or the Secretary of the Navy under or in connection with any lease on the Outer Continental Shelf after the date of enactment would be paid to the State adjacent to the portion of the OCS covered by the lease. Another 25 percent would be equally divided among the other States and the remaining 50 percent would be deposited in the U.S. Treasury and credited to miscellaneous receipts.

S. 470 would amend the Coastal Zone Management Act of 1972 to suspend Federal oil and gas leasing in areas seaward of State coastal zones until such date as a coastal zone management program is approved or June 30, 1976, whichever comes first.

S. 586 amends the Coastal Zone Management Act of 1972 to provide coastal States adequate assistance to study, plan for, manage, control, ameliorate the impact of energy facilities siting and energy resource development or production which affects directly or indirectly the coastal zone.

S. 586 requires this Department to issue an annual report to Congress, including a description of economic, environmental, and social impacts of facility siting and energy development and production and a description and evaluation of regional planning mechanism, developed by coastal States. It also requires all applicants for permits and leases to certify that their conduct is consistent with any approved State management program.

S. 586 authorizes \$200 million for fiscal year 1976 and each four succeeding fiscal years for the Coastal Impact Fund. The Secretary of the Treasury is authorized to make grants for studying, planning for, managing, controlling, and ameliorating social and economic consequences of development, production, or siting and for construction of public facilities or provision of public services necessary to those coastal States likely to be significantly and adversely impacted by development, production or siting of energy facilities. Grants are to be coordinated with State coastal zone management programs, and funds are to be allocated in proportion to anticipated or actual impact.

S. 586 also authorizes \$5 million for fiscal year 1976 and for each three succeeding fiscal years, for interstate coordination grants and for short term coastal research assistance.

Under S. 586 the scope of the Coastal Zone Management Act of 1972 is extended to beaches and islands, and dates for increased appropriations are extended.

II. DISCUSSION

Existing legislation provides a satisfactory framework for carrying out the essential objectives of most of these bills, and we are moving toward accompanying them. The existing Outer Continental Shelf Lands Act permits substantial latitude for adjustment to changing circumstances and our program for development of the OCS can be fully carried out under the present law. Significant changes in that law could seriously delay achievement of the degree of national energy independence which we believe is vital.

Discussed more specifically below are some of the more important aspects in which we believe provisions of these bills are either unnecessary or undesirable.

A. Scope of leasing program—lease terms

Provisions limiting or otherwise modifying the scope of the OCS leasing program are undesirable. For example, a goal such as that implied in S. 521 of leasing all available prospectively productive OCS lands as soon as practicable is of uncertain significance. To the extent that it implies development at a rate which may involve undesirable environmental or other effects, we oppose it. Beyond this, we are proceeding with dispatch on a leasing program which would make prospects available in all frontier areas by the end of 1978. Actual sales would, of course, depend upon receipt of acceptable bids.

Conversely, the requirement that the most environmentally safe areas should be leased first is too restrictive. Environmental hazards must be balanced by potential resource values. On an area-wide basis, leasing would be appropriate wherever the potential value of the energy resource is expected to exceed environmental costs. Leasing on particular tracts may be unacceptable for environmental reasons, but this would be determined on the basis of an environmental impact statement.

A related consideration is the specific study or other requirements found in several of the bills which are prerequisites to leasing. S. 426, for example, would place a moratorium on leasing of areas of the OCS where there has been no previous development or where conditions are hazardous, until the Federal exploratory program, required by the bill has been completed. The following areas are listed as areas to which the moratorium would be applicable: Georges Bank, Baltimore Canyon, Blake Plateau, the portion of the Florida Embayment in the Atlantic Ocean, Southern California including the Santa Barbara Channel, and the Gulf of Alaska. Present law adequately provides for this through the National Environmental Policy Act and the Outer Continental Shelf Lands Act, and our policy is to expand our capability rapidly for determining all the facts necessary to a balanced leasing program. The exploratory program required is such a departure from present procedures that considerable time would surely elapse before the new system could be established. In times of energy shortage, this delay is unwise. As more fully discussed below, we also agree that consultation with coastal States is appropriate, but requiring consent of their governors is unwise in view of the broader national aspects of the OCS program.

S. 426 would require approval of and operation under a development plan as a term of the lease. The lessee's plan would have to be consistent with the Secretary's broad development and leasing plan for the area and failure to comply with the plan would terminate the lease. Although a plan could be modified, this is too stringent a requirement because termination would be automatic. Lesser penalties will frequently be more appropriate to deal with failure to follow the plan. Termination is not necessarily in the public interest.

In contrast to the changes provided by these bills, present law provides sufficient flexibility for an appropriate balancing of energy and environmental factors. Our concern is to improve the leasing system within the present framework and in this connection the Department recently has adopted a two-tier system for designating tracts to be leased. Under it industry nominates promising areas and the public at large is invited to comment on environmental and other considerations bearing on tract selection. Based on this and its own independent review, the Department then specifies areas to be leased. In this regard, we note that the CEQ study has concluded that leasing can be carried out in the areas included in that study if appropriate safety and environmental requirements are adhered to in each area. We intend to require of the industry whatever design criteria and practices are necessary to meet the CEQ concerns.

We currently require lessees to submit development plans subsequent to the exploratory phase of the lease. We are seeking further to integrate these procedures with the coastal zone management programs being developed by the coastal States.

We do not believe it appropriate to amend the OCS Act to require further consistency or coordination with coastal zone management programs. In this regard, it should be noted that selection 102(1) of S. 426 the definition of "coastal zone" differs from the definition of this term in the Coastal Zone Management Act. This could cause much needless confusion.

B. Receipt of fair market value for Federal OCS oil and gas

The OCS Lands Act presently provides that leasing of OCS lands shall be by competitive sealed bidding on the basis of a cash bonus bid with a fixed royalty on a bid royalty with a fixed bonus, but in no instance can the royalty be less than 12.5 percent. The leases are for a 5-year term. These provisions, coupled with the Department's geological experience and the means for acquiring such information, are sufficiently flexible for institution of the most desirable alternative leasing systems to promote competition while serving the public's interest in receiving a fair return for its resources and using those resources in the most responsible manner. Several general issues bearing on receipt of fair market value are discussed below.

1. *Geographic and Geophysical Information.*—Assuring that the private sector has access to information needed to make intelligent decisions with respect to OCS energy resources is essential. Equally important is the desirability of maintaining a resource information base which allows the Government adequate knowledge of the quality and extent of the resources available for sale.

The Interior Department presently has the necessary authority and capability to pursue these objectives. The U.S. Geological Survey has access under the present OCS Lands Act to the same geophysical data as lease bidders, and has the means for gathering substantially more offshore data than bidders. We will publish shortly proposed rules to require more rapidly data disclosure. The Department also now has adequate authority to undertake stratigraphic drilling in frontier areas.

Under the rules we have proposed, geophysical data collected under exploration permits would be made public within 10 years or whenever a lease is relinquished, whichever period is less. The Department could release data earlier based on a decision that this is necessary for the proper development of the field or area. Deep stratigraphic tests would be released 5 years after date of completion or 60 days after issuance of the first Federal lease within 50 geographic miles of the drill site. Geologic data would be released to the public in 6 months.

It would not be appropriate to amend the Outer Continental Shelf Lands Act at this time to require the development of specific informational programs. The survey and mapping program required by both S. 521 and S. 426 would, for example, impact quite heavily and perhaps undesirably on our OCS program. These bills would require that a survey of OCS oil and gas resources be conducted and that the Secretary maintain a current series of detailed topographic, geological, and geophysical maps of and reports about the OCS. A plan for conducting the prescribed survey and mapping programs would have to be submitted to Congress within 6 months after enactment. A progress report to Congress would be required on an annual basis. Conducting such an extensive mapping and survey effort would be extremely difficult and would not likely produce results justifying the effort. Again, our present program undertaken pursuant to existing authority and modified as needs change, should be satisfactory.

2. *Lease offering and conditions.*—Current Departmental practices and studies are designed to assure that the lease auction of OCS resource are competitive enough to insure receipt of fair market value. The Department has begun to use a Monte Carlo simulation model in the estimation of the value of tracts offered for lease. This simulation approach provides a more accurate representation of the uncertainties inherent in hydrocarbon estimation. Through the use of this model and improved bid rejection system, the Department is in a position to more accurately assess whether the high bids received on tracts reflect fair market value. Since the inception of the Monte Carlo program in 1974, approximately 16 percent of the high bids received have been rejected. Here too, the proposed data disclosure regulations offer benefits in putting all bidders on equal terms regarding the offshore geologic data they possess.

Proposed regulations banning joint bidding among the largest oil companies were published in the *Federal Register* on February 21, 1975. All companies, including their subsidiaries, that produce more than 1.6 million barrels of oil and natural gas equivalent a day, will be banned from bidding jointly with each other. Such companies are also precluded from making pre-lease arrangements whereby an agreement is made between two companies to share a lease

if one of the two is awarded the lease. Comments on the regulations are due on March 25, 1975. The regulations are expected to be in effect for the proposed California sale, now scheduled for mid-summer.

Different methods of bidding for OCS leases are under constant consideration. Bonus bidding has historically been used for Federal OCS leasing. The Department is currently analyzing alternative bidding methods available to it under the OCS Lands Act of 1953. Concern has been raised over the heavy commitment of "front end" capital associated with the cash bonus, fixed royalty of 18½ percent method of leasing. Options are being reviewed to accomplish the following: (1) lower front end costs, (2) assure payment of a fair share of actual production to the Federal Government and (3) ensure the maximum economic recovery of each reservoir.

Among the bidding methods being considered are: Bonus bidding with increased royalty rates; royalty bidding; bonus bidding with net profit payments in lieu of royalties; net profit bidding; and deferred bonus payments with forgiveness of the unpaid balance at the time of lease abandonment.

A test of the royalty bidding option took place in October 1974. Ten tracts were offered with eight being leased and the results are currently being analyzed.

Both S. 521 and S. 426 would amend the OCS Act to eliminate the present alternative of royalty bidding, and two new alternatives would be added involving net profit sharing. We object to provisions such as these, insofar as they limit our flexibility in devising appropriate lease terms, particularly with respect to royalty bidding.

C. *Environmental and safety programs*

The need for constantly improving our environmental protection and safety programs is clear and we concur in the broad objective of several of the bills to achieve this end. The actions we are taking in this regard are more fully set forth below.

1. *Environmental requirements.*—The National Environmental Policy Act requires the Interior Department to insure that environmental considerations are fully taken into account in implementing the OCS Lands Act.

Both S. 521 and S. 426 would add to the present law a section requiring a Federal exploration program prior to leasing in frontier areas. While we agree with the general aims of the provision, to obtain more information on which to assess development possibilities and bidding, we are opposed to statutory establishment of such a program at this time. One of the analyses currently being undertaken within the Department examines Federal exploration of OCS areas. Different program options are under consideration. We believe it would be premature to attempt to establish a Federal exploratory program without first analyzing all the alternatives and conducting analyses such as the studies the Department is performing at the present time.

As part of our analysis of frontier OCS areas, an extensive program of environmental studies has been initiated. The first phase occurs before leasing takes place. It involves an assessment of the biologic, physical, meteorologic and geologic conditions of an area. The establishment of this benchmark of oceanographic conditions permits us to later measure any effects resulting from offshore development. It also aids us in the preparation of environmental impact statements, in the selection of tracts and in the development of lease stipulations and criteria.

Once exploration and development takes place, an environmental monitoring program is begun. This program involves the analysis of the same variables included in the initial benchmark phase. Changes in the environment are detected and, where necessary, corrective measures are promptly developed.

In addition to the benchmark and monitoring phases, special studies such as spill trajectories, toxicity and socio-economic analyses, are also conducted.

The funding for fiscal year 1975 equals \$20.5 million; proposed funding for fiscal year 1976 equals \$44.7 million. This program is coordinated through an Outer Continental Research Management Advisory Board which consists of representatives from the coastal States, EPA, NOAA, and agencies within the Department of the Interior.

We are also doing environmental impact statements on the entire accelerated leasing program and on each specific lease offering. We are conducting baseline studies in all frontier areas.

We agree in principle with the objective of a more complete review of the production phase of a lease after the exploratory phase but before the development is undertaken. The Department is studying the administrative steps necessary to put such a policy into force without introducing undue delay in develop-

ment of the Nation's energy resources. Legal authority pursuant to the OCS Lands Act presently exists to implement such a policy.

Provisions such as those in S. 521 and S. 426 modifying existing procedures are unnecessary and might be detrimental if transitional problems of complying with their provisions delay current studies or other actions we are currently undertaking to improve environmental protection and other requirements. We also oppose statutory provisions which specify in advance that certain Federal actions, programs or functions will or will not constitute major Federal actions for NEPA purposes.

2. *Safety requirements.*—Adequate safety standards and enforcement procedures for the OCS are currently in operation or are in the process of being put into force. We are committed to having standards at least as strict (assuming reasonable standards) as those of adjacent States. Studies have been conducted in cooperation with the National Academy of Engineering and the National Aeronautics and Space Administration, and steps have been taken to implement the recommendations for safety of OCS operations. Proposed OCS orders have been published for the Gulf of Alaska and the mid-Atlantic to elicit specific comments from interested parties.

S. 521 would direct the Secretary to carry out a program of technological research and development related to production of oil and gas from the OCS to supplement other Federal or private programs. The Secretary would, among other things, establish environmental and safety standards for equipment used, as well as performance standards for oil spill cleanups. Although we agree with the objectives of these provisions, we question whether the Department of the Interior should be directly involved in the development of equipment technologies. The Secretary should instead encourage such development by use of operating conditions and stipulations.

Also a new section in S. 426 appears to transfer functions presently performed by this Department's Geological Survey and Bureau of Land Management to NOAA and the Coast Guard. Subsequent to leasing NOAA is made the lead agency for complying with requirements of NEPA, baseline and monitoring functions. The Coast Guard would also take over present GS functions including promulgation of operating orders, standards for technology to be used and establishment of equipment and performance standards for oil spill clean-up operations. This would constitute an entirely undesirable transfer of responsibilities from agencies which already have the required expertise, to agencies which do not have this experience at this time.

D. *Research and Development*

A strong research and development program by government and industry is essential both with respect to energy and environmental aspects of OCS mineral development. It is, however, being accomplished under existing law and several provisions in the bills under consideration might, if enacted, actually adversely affect the R&D effort. Mandating a wide range of studies by different agencies, as does S. 521 and S. 426, may preclude desirable coordination and executive flexibility. S. 586 would channel funds on an arbitrary basis to States and thereby constitute an unwise diffusion of R&D efforts.

E. *Public participation of OCS decisions*

States which are most likely to be directly affected by the development of energy resources of the OCS, should participate in decision making. Under current procedures, we believe that such States are adequately apprised of the activities and hazards which might be involved in OCS development and are provided with ample opportunity for participation on OCS decisions. This State participation now includes:

(a) Environmental Study Program, Representatives from the coastal States serve on the OCS Research Management Advisory Board which oversees the Bureau of Land Management's environmental study program.

(b) Development of OCS Orders. The Geological Survey consults with the States in the development of OCS Orders. These Orders provide industry with the rules and regulations to be followed in exploration and production activities on the OCS. The regulations that are now in effect have been strengthened considerably since the Santa Barbara spill. Proposed orders have been published for the Gulf of Alaska and are soon to be published for the mid-Atlantic.

(c) Call for Nominations. Approximately 12 months prior to a sale date, the Department publishes a request for nominations in the *Federal Register*. All interested members of the public including the adjacent States are urged to nominate specific tracts which they would want to see studied further for

possible inclusion in a sale. They are also asked to designate specific tracts which should be excluded from the leasing process because of environmental conflicts.

(d) **Tract Selection.** Subsequent to receipt of the nominations, the Department makes a tentative selection of tracts. States are consulted on the issues involved in the selection process. States are again consulted before any final decision is made on tracts to be offered in a sale.

(e) **Draft Environmental Impact Statement.** The DEIS contains a detailed environmental assessment on a tract by tract basis in addition to an analysis of the general environmental conditions in the area. The States are asked to designate representatives to participate in the actual preparation of this document. This request has been made to Atlantic coast Governors and to the Governor of the State of Alaska.

(f) **Public Hearing and Comments.** After publication of the DEIS, a public hearing is held and States are invited to comment either orally or in writing. These comments are used in preparation of the Final Environmental Impact Statement.

(g) **Decision by the Secretary.** After completion of the Final EIS and a Program Decision Option Document, a decision is made by the Secretary whether to proceed with the sale and if so the composition of the sale. The Governors of affected coastal States are consulted before a final decision is made on what tracts are to be included in a sale.

(h) **OCS Orders.** The Geological Survey submits proposed OCS Orders to the States for review and comment.

(i) **Supervision of Leases.** Geological Survey monitors adherence to the OCS Orders through review of applications and proposed plans. Consideration is being given to having State personnel participate with the Geological Survey in this endeavor.

(j) **Review of Development Plan.** Under the Coastal Zone Management Act, any State with a coastal zone management plan will have to review actions which may affect land and water uses in the coastal zone. Such actions may include the approval of a development plan which is now solely the responsibility of Geological Survey.

We are opposed to the provision in S. 521, S. 426 and S. 81 which is designed to provide the Governors of coastal States with a mechanism to delay OCS oil and gas lease sales if such sales are anticipated to have adverse environmental or economic impacts. We appreciate the concern of coastal States regarding the environmental and socio-economic problems associated with OCS development and their desire to exercise some control over such development, or other things failing, to at least forestall it. The appropriate response is, however, to undertake advance planning and cooperation between Federal, State and local government along the lines of the Coastal Zone Management Act, rather than on last ditch efforts to delay leasing.

Oil spill liability.—The Administration is currently preparing legislation for submission to the Congress which would establish a comprehensive system of compensation for oil spill damages. This system would embrace damages from OCS operations and would supplement environmental and safety standards. We expect that this proposal will be forthcoming shortly and we recommend that Congress defer action with respect to oil spill liability compensation until the Administration proposal is submitted.

Distribution of OCS revenues.—The Administration recognizes the concerns about OCS generated fiscal impact problems which have led some coastal States to propose that OCS revenues be shared with the States. The Administration currently is actively developing several alternative proposals to deal with such problems ranging from impact aid grants to formula-grant revenue sharing. However, we have no recommendation to make at this time.

To summarize, the bills before the Committee deal with the major issues relating to use of the energy resources of the Outer Continental Shelf. To meet our present energy needs, however, we believe that the present OCS Lands Act provides a satisfactory framework and that further legislation such as that before the Committee is undesirable or unnecessary.

The Office of Management and Budget has advised that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely yours,

ROGEES C. B. MORTON,
Secretary of the Interior.

Senator HOLLINGS. Thank you very much, Mr. Secretary.

Senator Metcalf.

Senator METCALF. Thank you very much, Mr. Chairman. I am going to just ask a couple of questions, Mr. Secretary, then I will yield to Senator Johnston, who is the most knowledgeable, both because of his own experience in offshore drilling in his own State of Louisiana and because he participated more than any other member of the Interior Committee in markup of S. 3221 which was the bill that the Senate passed last year. It was similar to S. 521 this year.

Mr. Secretary, I am delighted to have you here and pleased to be able to see your staff and meet with the men who are formulating policy down at the other end of town. But I am very disappointed that you come up here without any suggestion for legislation at all. You come up here telling us that you don't feel that we need any legislation.

Mr. Secretary, the Outer Continental Shelf Lands Act was passed in 1953. It has never been amended. In the interval, there have been considerable technological developments, economic changes, our whole energy pattern has changed.

The purpose of legislation at this time is, of course, considerably different from the purpose of legislation back in 1953. I can remember the first act. I was a Member of the House of Representatives at that time. We were thinking about States rights provisions and talking about whether Federal or State ownership was appropriate. Now we are thinking about environmental controls, and protecting the public interest in the leasing of the Nation's resources.

So I just can't imagine a great resource administration such as yours coming up here and telling us that despite the intervening years, more than two decades, there is no need for legislation whatsoever.

I was a Member of the Congress that passed the first Outer Continental Shelf Act and I don't think that Congress was so wise and so farséeing that we anticipated all these things. Now, you have outlined that you can do by administrative and Executive order most of the things provided by statute here but you have not done them, Mr. Secretary.

Would you respond to that?

Secretary MORRON. First, for the record, Senator Metcalf, let me say that we hope to have and we also support the unlimited liability bills that are now before the committee and we will have a similar bill, I think. We are checking into some of the legal aspects of it now, before the Congress in a very short time.

Also, I think as soon as we are sure as to how the cash flow in the industry is going to be directed and what kind of revenues we will be looking at, we are going to be addressing the whole revenue-sharing question which will require legislation.

It is pretty hard to develop this legislation until we know what some of the other rules of the game are. But these would be two areas that would require legislation and which I think we should have the benefit of the experience and the benefit of other changes that are on-going.

As far as what we are doing, let me say that there has been a vast change in the procedures and in the regulations and in the whole system of doing this. You are right that 1953 was the date of the OCS bill, but since then, there have been other acts—namely, the environmental

legislations that have passed, the NEPA act, the National Environmental Policy Act—which have created a great change in the procedure and in the systems which are implemented to bring forth these resources from the marine environment.

As I pointed out in my statement, we have moved a long way down the line in doing some things. Let me tick off a few.

First, we had established a ban on joint bidding by major oil companies so that the independents have a better shot at it. That means that two of the giants cannot gang up together but one of the large companies can join with small companies and independent companies, and the independents have found that this is the best way to get on to the OCS.

We have changed and improved our tract evaluation system. This had to be done during a period of very rapid escalation of oil prices. We have had an experimental royalty bid and we are evaluating that. It shows that perhaps there should be some way to change the ratio between royalty and front money but a royalty bid per se leaves a lot to be desired and I could go into details on that.

We have had a change of geological and geophysical disclosure information. We have now broadened the base of the geological information to make the whole operation more competitive. We have increased our coordination with the States and we are heavily involved now in the development of a mutual with the States procedure which allows them and gives an opportunity for input from the States.

We have also started a baseline study program so that we can constantly compare the environment as it was with what is happening to it as a result of offshore exploration and development.

Under consideration now, we have alternate bidding systems which we are studying. We are studying the question, as I said before, of compensation to the States. We are also trying to develop, in response to the Governors' desire, a separation in the decisionmaking process between exploration and production.

We also have—are going with a policy of unitization of exploration to try to minimize the risk, to try to take maximum advantage of every drilling rig that is available.

So I think it is fair to say that we have moved this procedure in a very short time, a long way.

Senator METCALF. Mr. Secretary, I listened to the litany of the things that you have started and the things that you are about to do and the things you are planning to do. But actually, Mr. Secretary, you have done very little. You are talking a pretty good ball game here, but nobody has started to throw any baseballs yet.

Last year when we had S. 3221 before the committee, Secretary Whitaker told us that you were going to issue proposed regulations on data disclosure and joint bidding shortly. That was almost a year ago. You haven't acted yet and yet your administration downtown is always talking about the failure of Congress to act.

How can you ask Congress to delay when over a year ago, you said that shortly you were going to issue these regulations and nothing has been done about it?

Secretary MORRIS. We put the regulations out a year ago on joint bidding and we found, after the regulations were out, comments, that the criteria was not right. It is a complicated matter and we are now in the process of putting them out again.

I would like to make sure that we understand, too, what revenues we have generated from the Outer Continental Shelf for the people of the United States. This I will supply for the record. But in spite of the court proceedings and all the other inhibiting factors, we have supplied the United States treasuries with hundreds and hundreds of millions of dollars. This program has been expanded tremendously over what it ever has been in the past under this administration or any other administration.

I have no excuse for the fact that it is complicated. I have no excuse for the fact that under present knowledge, we don't know where the oil is and where it is not. But these are acts of God.

Senator METCALF. The fact that we don't know where the oil is, Mr. Secretary, doesn't prevent you from issuing regulations as to what we will do about the oil when we find it.

Secretary MORTON. We are bringing ashore—last year, we brought 392 million barrels ashore—

Senator METCALF. But you told us about the change in these regulations and isn't it a fact that today the Department's regulations are the same as they were a year ago and the same as they have been for several years?

Secretary MORTON. Let me ask Mr. Klepper to answer this. Many of these regulations are Geological Survey regulations and I think they have been changed mightily, particularly on the safety side.

Senator METCALF. Go right ahead, Mr. Klepper.

Mr. KLEPPER. Senator Metcalf, during the past year, in following through on recommendations made by various technical groups, the National Academy of Science and other studies on safety measures, we implemented a large number of additional safety requirements. These have been put into the orders. We have taken steps to assure more diligent operation on the Outer Continental Shelf. We are looking into the matter of shut in and analyzing information on shut in production. I think we have been moving during this past 6 to 12 months and improving our procedures and operations on the Outer Continental Shelf.

Secretary MORTON. Let me add one thing. We have institutionalized ourself to lease three times as much land on the Outer Continental Shelf as has ever been leased in any one year before. This took quite a bit of doing because the number of people who were expert in this area was limited. We have to train people, we have had to put people on board, we have had to broaden the capability, both in the Bureau of Land Management and the Geological Survey to handle this expanded program. They are now in place and we are actually providing the environmental procedures are properly met.

We are in the process now of holding sales at an annual rate of three or four times that of any previous period in OCS history.

Senator METCALF. Mr. Secretary, when Mr. Whitaker came here and talked about the bill before the Congress last year, which passed the Senate, he gave us the same story that you have given us today that you didn't think there should be any legislation. He also said that the Department was working on oil spill liability bill and shortly would have one up.

Here today, again, it's just like a broken record. We could have played last year's testimony. You are working on oil spill liability;

you are working on some of these regulations and so forth. But very little has been done. I am convinced that it is about time we listened to people downtown who said Congress should act.

Secretary MORTON. I think we are talking about apples and oranges. I have never pushed the Congress in the OCS area. I think that the work that the committee has done and the work that has been done in this area, has been very good. We have worked together and we have tried to work with the committee's staff in changing and improving our regulations.

I think the OCS Leasing Act was far-reaching. There have been a lot of overlays over that act since 1953. One, of course, is the National Environmental Policy Act. This requires a tremendous procedural effort. The NEPA statement alone on the Alaskan pipeline cost \$12 to \$14 million and how many man-years were involved in that, I will never know.

But all of that type of procedural effort has had to take place in order for us to be where we are now. I think the fact that we have been able to sell as much land as we have and have had the court proceedings, I am not apologizing one bit for the accomplishments we have made.

I think we are reaching a threshold now, if we can get the Supreme Court decision behind us and if it is favorable and if we can overcome some other court problems that we have in the Pacific, we are in the position now to move into the frontier efforts. There has been no motion into those frontier efforts for 20 years.

We have cranked the whole system up to move in that direction. The only thing holding us back now are court decisions. You know and I know that neither of us is going to attempt to pre-empt the Supreme Court.

Senator METCALF. I am delighted to hear you say that, to give us that outline. I don't think that we are going to attempt to pre-empt the Supreme Court and I don't think we would get very far if we tried.

Secretary MORTON. I don't think so either.

Senator METCALF. But again, I had hoped that this year, Mr. Secretary, after not only one bill last year and several bills have been introduced this year, that you would come up with some approval of some legislation or some legislation of your own. I am somewhat disappointed that we have almost the same testimony we had a year ago.

I am concerned, as all of us are, about front end money for local government services in these areas that have an influx of population that the Senator from Louisiana was talking about. We have been talking about that in the strip mining bill for the last 3 days on the Senate floor. But the Senator from Louisiana, as I say, is more knowledgeable about that particular fact because of his experience.

Mr. Chairman, with your permission, I am going to yield the floor at the present time. I know that he will develop the areas that I want to talk about.

Senator HOLLINGS. Very good. Before I yield to Senator Johnston, let me ask, Mr. Secretary, which one of the six bills do you favor or do you favor any of them?

Secretary MORTON. I think the Jackson bill is the smoothest and easiest bill to comply with.

Senator HOLLINGS. Which one is that? We cosponsored each other's bills.

Secretary MORTON. That has a number in the Senate of S. 521.

Senator HOLLINGS. So you favor S. 521?

Secretary MORTON. I would choose it among those. I think there are many things in S. 521 that I would like to study more and change. There are things there that we have the authority to do and do not require additional legislation for. But of all the bills, I think it would be the most effective. But we don't think any of the bills are necessary to do the job.

Senator HOLLINGS. Let's get that clear. Unless we get clear the position of testimony, we will never be able to make up our minds up here. We have your paper dated March 13 to Senator Jackson and the Committee on Interior responding to the request for views of the Department and the statement is, over the Department's signature, we recommend that none of these be enacted. That is the beginning of the second paragraph. Is that the position of the Department?

Secretary MORTON. Yes; that's the position of the Department. I don't think the bills are necessary. You asked me which one I liked the best and I like the Jackson bill the best but I don't think any of them are necessary.

Senator HOLLINGS. So you stick to that statement and you recommend that none of them be enacted?

Secretary MORTON. That is correct.

Senator HOLLINGS. Therein is the frustration of our senior colleague, Senator Metcalf. He has been sitting up here every year listening and trying to develop a program, and now in updating it, what we find is that the President and the Congress are at a standoff. The President was good enough to say I will hold up on my program and give you gentlemen 60 days to develop yours.

On another matter, the matter of automobile fuel economy, the administration's policy was, let's wait 5 years. I conducted those hearings the day before yesterday. Everybody had an automobile fuel economy facet of the energy conservation program on national energy policy. We got up there and the administration said, wait 5 years.

Then when we were given 60 days, the administration position on that measure was to wait 5 years. Now when we get to the matter of actually going after this oil on the Outer Continental Shelf, the administration's position is, don't enact any laws, we don't really need them. Is that what we are to be told now, just hold up on these, too?

Secretary MORTON. I have never gotten out of any of these bills what the goals are. We have specific goals. I would like to get 4 million barrels a day net improvement or net production on the OCS by 1985. I can get there, I think, under present legislation and with some revision in the program. I think we have got to decide where we want to go before we decide on how we are going to get there.

I thought we had pretty well agreed that what we were going to do was go into the frontier areas. We are moving into the frontier areas. I thought we had pretty well agreed that we were going to increase the number of acres available to the industry for exploration and development. We have moved into a program already that increases the number of acres available to the industry for exploration and development.

I thought we were going to address ourselves to the impact onshore and we have addressed ourselves through a bill that you had a great

deal to do with which was the Coastal Zone Management Planning Act. We have added additional money to this. What I am trying to get here is, what is there about our goals that the Congress does not like? What is there about our methodology that the Congress does not like, and what is wrong with the program?

Senator HOLLINGS. Well, we refer you to the six bills. To be specific, and you recognize this, it's not a question of where we are going to go. We are going to go to the Outer Continental Shelf. The reasoning down in the Accounting Office, is that approximately 66 percent of our national reserve and treasury is in these frontier areas. That's where we are going to go and I think everyone agrees with that.

The problem is how? For example, you say and in your statement about bringing the Governors in, how are you going to separate the exploration from production without legislation?

Secretary MORTON. I think we can have a pause between exploration and production by working out a system within present legislative framework of the approval of development plans. It has always been the policy, both onshore, that once we grant an exploration or permit for mining or for mineral finding, we then have always followed through saying that if you found some minerals in commercial quantities, you would have the right to develop it. That has been basic.

The Outer Continental Shelf Act changed that philosophy a little bit but basically, the reason that we have not moved faster over the years is that there has been much cheaper oil available from foreign sources and it has only been since the embargo was lifted and since the price of oil went from \$3 a barrel in Saudi Arabia to \$10 a barrel that there has been any real motivation to move into the Outer Continental Shelf.

If you will look at the response to the sales that we have had and look at the schedule for the sales that we would like to go ahead and proceed with, you will see that there is a tremendous effort now underway. Not coming up tomorrow but now underway, to move into the Outer Continental Shelf area and to develop oil that, when it comes ashore, will stiff arm oil that we import from the Arab countries. That's where we are.

I think there is a feeling somewhere that everything is paralyzed and nothing is happening. A great deal is happening. Look at the MAFLA sale, look at the south Texas sale, look at the activity. Rigs are coming back from overseas. There is acceleration.

I was in the Avon Shipyard the other day in Louisiana. There is acceleration of the development of oil country goods required for OCS exploration and development. There is a great deal of activity.

Senator HOLLINGS. Let's get right back to the separation that the Governors have asked for. There is a lot happening. In fact, if you had had it your way, and announced last fall when there had not been a court agreement, you would have offered the 10 million acre program and the whole Government would have been locked in on irreversible decisions that would have been responsible for the impact on the coastal zone area in his particular State and there was no way for him to find out any information.

Let's get to that point and not the number of acres. I want to ask about the acreage and the money in a minute. You have been and I have been to conferences with the Governors in Princeton, N.J. We have

followed each other on these programs and the Governors are still—after all it sounds nice to put it in a statement—voted 30 to 1 to separate exploratory drilling from national production. Do you oppose legislation to do that?

Secretary MORTON. Yes. Because I think if you do that and really separate them over a long pull by completely divorcing it, you will delay the production of oil and gas on the Outer Continental Shelf a decade.

Senator HOLLINGS. Elaborate on that. The distinguished Secretary, and I have the record here, testified no later than last week before the Subcommittee of Interior Appropriations, and I asked the Secretary at that particular time, I asked what was his position on exploratory drilling. The Secretary's answer went into the matter of the vastness of the Outer Continental Shelf. I specifically asked would there be any delay and you said, no, you couldn't see any delay.

In a week's time, you have a 10-year delay. Let me hear about it.

Senator JOHNSTON. Would the Senator yield to get the Secretary to clarify what the difference is between exploration and production or exploration and development?

Senator HOLLINGS. You could clarify that but I would like you to immediately clarify what I have asked.

Secretary MORTON. You asked me the question, as I understood it Senator, what you asked me was would I favor a legislative process that would separate exploration from development? I am assuming that exploration is that activity on the Outer Continental Shelf that lets us know two things. One, where the oil is and where the oil is not. It is that activity which must precede any kind of development of a commercial nature that brings these resources ashore and to the marketplace, gas or oil.

The current procedure that we have is that one of these things subsequently follows the other. We now explore and if oil is found, there is no delay imposed upon the developer to go ahead and start drilling commercial wells and finally hooking up those wells—

Senator HOLLINGS. After he is given 5 years.

Secretary MORTON. The lead time to get any amount of oil ashore has been longer than that. It takes from 3 to 8 years.

Senator HOLLINGS. So he has generally used an average of 5 years?

Secretary MORTON. It takes generally about 5 years to get this exploration done on all of the tracts involved.

Senator HOLLINGS. That's right. So for the public's understanding under the present system, if we lease the 10 million acres—and you said it would be another year with invitational bids and everything else, but let's say we got leasing this time next year or early summer next year—then they would still have 5 years under the present system, 5 years from 1976, till 1981 to actually bring that oil in. Is that correct?

Secretary MORTON. They would have 5 years but the history is that they will move fairly quickly.

Senator HOLLINGS. A minute ago you said from 3 to 8 years and agreed to the 5-year average. I am trying to add that 5 onto 1976 and get to 1981 and the next statement you made was "fairly quickly." Was the first statement correct or not? Once they obtain these leases and actually bringing in the oil to the American consumer?

Secretary MORTON. It's 3 to 8 years.

Senator HOLLINGS. So we are back to 5. What we are talking about, you were talking about, the activity of 10 million acres and everything else, really is not going to bring any additional oil in until 1981. Is that what we are saying?

Secretary MORTON. I am hoping we can bring enough in—for example, the MAFLA sale which you are familiar with, I am sure, or Mississippi, Alabama, Florida. One of those tracts on top of the dome sold for \$2 million and the company moved in almost immediately just as soon as they could to comply with all of the regulations. They have completed—nearly completed—their exploration phase of that tract. There is an example of where the exploration phase was completed within a couple of years—less than 2 years. I think as many as five or six holes will have been drilled on that in this timeframe. So you find exploration starting almost immediately and then, because one dry hole relates to another, the geology developed through exploration is examined and evaluated in such a way that other exploration decisions are made and the whole process in regulation is given 5 years to take place.

When they find oil, they bring it ashore as fast as they can. But the average has been from 3 to 8 years.

Senator HOLLINGS. The average has been from 3 to 8 years for bringing it in. So we are back down to the 5 years in general terms and not considering the hiatus in cost. The hiatus I refer to has been the experience with the Alaskan pipeline where you had that 9 months to provide an environmental impact statement.

Ordinarily, environmentalists have been able to delay the process some 3½ years. Now you see the problem we are confronted with in the Congress. If you add 3½ years to the 5 years in 1981, all this oil we have to bring in, rather than the fact that 10 million acres are being leased and a lot of activity is occurring, rather than answering up to America's problem, we are drifting along—unless we change this system somehow to include the various interested parties.

The Governors of States, 30 to 1, met and answered all these different things and they are burdened with all these duties. I am back to your question wondering what was all the rhubarb about? These Governors are going to have to suffer the impact. They are interested in the money part of it, the economic part of it, the pollution part, and everything else of that kind.

If, somehow, on the congressional schedule, we can count them in and have terminal dates for the Secretary's planning, for the Governors' planning, for congressional review, as is shown on that chart over there on the implementation of a Federal exploratory program, then everybody is counted in and we don't have to worry about the Supreme Court. We don't have to worry about the ordinary average of 5 or 8 plus 3½ years.

Now let's get to the question of implementation of a Federal exploratory program. What is your criticism of it? You can see the chart and schedule there.

Secretary MORTON. I think this is an old issue with us, Senator. I believe under that kind of proposition, I don't visualize any massive amount of oil or gas coming upshore until the early 1980's. Hopefully, we can overcome the depletion that will take place in that time frame with additional development. We are now producing somewhere between 1¼ and 1½ million barrels a day from the Outer Con-

tinental Shelf. This is going down, not at an alarming rate but it is declining because of the natural depletion of the fields.

To reverse this is going to take about 5 years which puts us to 1980—whether you do it this way or whether you do it the way we are doing it or whether you do it the way any of these bills described. My feeling is, you will get more oil by having more people out there competing for it and competing for it in the exploration phase than you will by having the exploration decision made by Government or any single entity in Government. It is a gamble; it is a very high risk business.

Under the best circumstances—the North Sea proves this—you have a large number of dry holes, a great deal of frustration, a great deal of the dice rolling snake-eyes before you hit; the more people you have doing it and the more people you have trying, the more oil you get.

History would show that if one entity, no matter how well they thought their geology was put together, they would not find a massive amount of oil. I think you are going to get more oil by people scrambling all over the country, all over the world, really, than you will if you try to make all the decisions in some agency of Government. It is just that sample.

Senator HOLLINGS. Are we really scrambling to produce or are we really scrambling to own? That is what disturbs the Congress. Your program of 10 million acres just transfers the ownership. If we take the National Academy of Science's updated report which finds substantially less than the original surveys that we have of remaining reserve in this country. Rather than just transferring that ownership to be brought in, in the 1980's, why not under the system recommended by the National Petroleum Council get a little more money, make certain we get the highest bid and ultimately show that it is within the Government's control and the people's control?

Otherwise we'd look around in 1980 and it's all gone. We have transferred the ownership and not bought any oil in specifically. With the ten million acres you double from June 1973 to October 1974, the amounts available for bids. We find from the Department of Interior's records that in June 1973 with a lesser number of tracts, that you got three or more bids. You got 63 percent of the tracts at three or more bids. But when you made that much more available in your October 1974 bids, 66.9 percent were only bid upon by two or less. Isn't that the case?

Mr. GASKINS. May I answer that question, Senator?

Senator HOLLINGS. Yes, sir.

Mr. GASKINS. It is the case that as we move to more marginal land in the Gulf of Mexico—

Senator HOLLINGS. Let's get to the number of bids. Is that what you are saying, the October bids went for marginal lands rather than for the amount offered?

Mr. GASKINS. Senator, I am trying to answer the question. As we have offered land less attractive in the Gulf of Mexico, the number of bidders per tract is going down. Yes, that is the answer.

Senator HOLLINGS. You didn't give them attractive places to bid; is that what you are saying?

Mr. GASKINS. Senator, as we have leased the Gulf of Mexico, we gave the most attractive places first and the next most attractive places second, and so on. We have been leasing there for 20 years. We are now down to land that is not very attractive in the Gulf of Mexico.

Senator HOLLINGS. Let's see if you will agree on this point. That two or less bids are unsatisfactory to the Department of Interior.

Mr. GASKINS. When you only get two bids on a tract, it doesn't mean that only two people have evaluated the land. It is quite possible as many as 20 or 30 evaluated the land and only two people think it has positive value. If you say that land has no value, what bid do you record? You record no bid. When you get two bids, you don't know that means only two people evaluated the land or whether 30 people evaluated and only two thought it was worth something.

Senator HOLLINGS. The fair market value in the Department of Interior's memo—the Department may not be receiving fair market value for those tracts when it receives one or two bids. Do you agree with that statement?

Mr. GASKINS. Senator, we had concern about that. At the time the memorandum was written, we were actually exploring that and that memorandum was the basis for our revised bid evaluation system. It was the basis for our recommendation which we hope to finally finalize in a ban on joint bidding among the majors.

If I can add a question of whether or not we are getting fair market value, we have our own measure of what the land is worth. The Geological Survey goes to a great deal of trouble to place a value on each one of these tracts we sell. If you look at the historical record of the ratio of the bids we received to our evaluation, it is still going up.

In other words, we are getting more than we think it is worth and the amount more than we think it is worth has increased over the past year. There is no indication that competition has failed us.

Senator HOLLINGS. It is the Interior's position at this present time that you are actually getting bids that are more than the leased tracts are worth; is that right?

Mr. GASKINS. Historically, we place a value on the bids. We try to place what we think is an appropriate value. Traditionally, we have been a little conservative. We continually monitor this to see what the land is worth and what the companies bid. We monitor this to see if it suddenly goes to pieces, if the company is not bidding less and that ratio has been increasing over the period of time.

Senator HOLLINGS. Well, historically, you have been undervaluing; haven't you?

Mr. GASKINS. Yes, sir, we seem to be conservative.

Senator HOLLINGS. Well, actually, the people are not getting the full value. That's your conservative—

Mr. GASKINS. No, sir, that's our average evaluation.

Senator HOLLINGS. Let's go to the matter of rigs and I will yield to my colleagues. I have a lot of questions and I will submit most of them in writing, if the Secretary doesn't mind. But isn't it a fact, Mr. Secretary, with the lease rate available under the Department of Interior's present program, it will take the next 2 or 3 years to develop the tracts already leased in 1973 and 1974 with the paucity of available rigs, and that it is going to take another 2 or 3 years to even get the oil in. Isn't that correct?

Mr. GASKINS. There are many ways you can look at this particular problem. It is true that under some assumptions, that the land we already have leased will not be fully explored for several years. But this important thing to note is that we have recently been leasing marginal land and if it is not explored for the next 3 or 4 years, it is because those rigs have been attracted to land that is better.

If our leasing program is successful and we move into frontier areas with bright prospects, we would be happy if some of the marginal lands in the Gulf of Mexico were not explored immediately and the equipment was diverted to the most promising areas. There are some tracts that will be bid on that will never have a hole drilled on them. They will be condemned by neighboring land or by the fact that people change their idea about where the oil is and where the oil isn't.

In the course of the program, 25 percent of the tracts we have offered have been returned to the Federal Government. Some of these were drilled and some were not. There are tracts out there that are marginal and will take a long time before people queue up to go after them.

What we are doing is taking the number of drilling rigs available and putting them on the best prospects on the Outer Continental Shelf.

Senator HOLLINGS. Mr. Secretary, does the Department have any idea about the relationship of lease rates and platforms?

Secretary MORTON. Yes, sir, we have a good deal of information. The Federal Energy Agency has done a lot of work in this area. We have also done some work in the area. The industry itself has obviously done a lot of work. It can be critical but, if the rigs are diverted to where the best opportunities are, then we stand the chance of getting the most oil and most gas in the shortest length of time. The rig situation is in a valley because most of the builders have been under contract for rig deliveries in other parts of the world. Those contracts now are expired and contracts are beginning to mature on rigs that will be used here in the continental United States.

We are climbing out of the valley but still, no matter what we do, this will be a critical factor; but we hope will not actually retard the development of oil and gas.

Senator HOLLINGS. Mr. Secretary, how does the Department, one last time, how does the Department contemplate counting in the States in the decisions before the leases are made, how do you propose to do that?

Secretary MORTON. Let me ask Roy who has been meeting with the Governors, Roy Hughes. I have met with the Governors, too. First we are doing it in the development process, the NEPA process, and then we are discussing with them a review of the development plan. Let me ask Roy to tell you how we are doing it.

Mr. HUGHES. Mr. Chairman, it has been our purpose over the last year to increase the dialogue with the States. I have met with some of the Governors individually and the Secretary has met with some of them collectively. Governor Hammond was consulted earlier this week on the proposed sale on the Gulf of Alaska. We have sat down with the Governor—

Senator HOLLINGS. Mr. Hughes, let me direct the question to how, what rules, what regulations—you have a big, friendly, respected Secretary. Suppose you have a so-and-so in there who doesn't go around and doesn't want to meet anybody and all that? I am Governor Morton

of the State of Maryland and I want to know as Governor what rules, what regulations I can count on to help make my decision for the coastal zone impact and economic impact in my State prior to the lease. What does the Department of the Interior, without a law, guarantee that Governor?

Mr. HUGHES. Other than the Coastal Zone Act and the NEPA Act, we don't contemplate acting into departmental regulations the requirement that the Governor must meet with a Secretary at any given time, every 60 or 90 days.

Senator HOLLINGS. There are no rules, no regulations, nothing in black and white that we can depend on? We will just hope and pray that Rogers Morton continues on, because we don't know what will happen after he leaves.

Secretary MORTON. I am surprised that you are not familiar with the NEPA Act. The National Environmental Policy Act requires that we put out before any Federal action is taken an environmental impact statement for public comment and for examination by the public at large, including the States. This is required by law.

Senator HOLLINGS. That doesn't bring them into the decision process.

Secretary MORTON. It certainly does. If they come in and we do not comply with the law, they can take us into court.

Senator HOLLINGS. You think that's sufficient?

Secretary MORTON. For example, I think in the Jackson bill and this is one of the problems I had with it, if a Governor wants to hold you up for 3 years, he can hold you up for 3 years. That would be in the law if that was enacted. I think that that kind of provision in the law could be greatly misused.

Senator HOLLINGS. I yield to Senator Johnston.

Senator BUMPERS. Senator, would you yield for one other thing?

Senator HOLLINGS. Senator Bumpers.

Senator BUMPERS. What authority does NEPA have once an environmental impact statement is submitted. What authority does anyone have except to review it? Does it say you can drill or you can't drill?

Secretary MORTON. No, they cannot. Under present law, they can't do that but obviously if we are doing something and we have covered it in the environmental impact statement that is detrimental, that is without the spirit of the environmental law, obviously we would be taken into court. That is what has been our procedure. We have been in court because there have been a lot of people who disagree with the environmental impact of a particular project.

If you are going to enact a regulation or provision that says, if you are going to give the Governors the power of veto, in other words, this is an entirely different ball game. This is a national resource. The oil and gas on the Outer Continental Shelf belong to all the people in the United States.

We have taken a position that nobody should have a power of veto over the access to that resource by the American people.

Senator BUMPERS. Mr. Chairman, it's not my point and I don't want to usurp other people's time but I want to ask that.

Senator MATHIAS. Mr. Chairman, I have a question precisely on this point, if the Senator would be kind enough to yield. The Secretary has commented on the provision of the Jackson bill for a delay of 3 years and he obviously does not like it. I suspect he does not like the

provision in S. 521 which provides for reference to a National Coastal Resources Board composed primarily of a Cabinet committee.

I wonder, between the two, which he likes the least?

Secretary MORTON. I think any arbitrary veto power by a Governor for 3 years, 5 years, which could very well be used for political purposes or under circumstances that really do not fit the issue, I like that the least. I don't feel the additional layer of government created in the other alternatives is a necessary layer of government. We seem to have some conflicting views here. I was chastised in a very articulate way by Senator Metcalf and I got the sense that we were not moving fast enough. That we were not getting this resource out. He said we had not moved fast enough to the implementation of regulations and procedures that would develop the oil and gas quicker to meet the Nation's needs.

Now on the other hand, we are imposing systems or contemplating the imposition of systems that slow the process up. Where do we come out? I have a feeling that the American people do not want to be contingent on the policies laid down in Saudi Arabia and want to move this oil offshore and in the international sense. Therefore, I think anything that slows down the production of oil and gas beyond good sound environmental precautions and beyond good sound onshore planning, is detrimental and is not in keeping with the national policy to become energy independent.

Senator MATHIAS. Mr. Secretary, under both of these alternatives, of course the ultimate decision would be at the Federal Government level. Under the Jackson formula, the decision would be in Congress. Under the formula that I proposed and which was adopted by the Senate, the decision would be made by the National Coastal Resources Board, which is a Cabinet committee and which really would not provide an opportunity for a Governor to veto. It merely gives a Governor a maximum, not a minimum but a maximum, 3 years in which time to make such internal arrangements as he might have to.

I gather from your answer that of the two, you like the Jackson one least and the one that I proposed, the next least.

Secretary MORTON. I have been operating maybe under an illusion. I hope not, that we cannot afford to have a third of our oil come from a concentrated area of the world over which we have very, very little control and is subject to all kinds of international problems and risks.

What I am trying to do is improve the safety and, at the same time, improve the environmental aspects of our operations but do nothing that will delay the process. I gather from Senator Hollings that he feels the same way, only I think he would choose a different method of doing it, which I respect very much but happen to disagree with it.

If we are going to create systems, not necessarily of getting the input from a Governor and getting his views and respecting his views, but to really give him the authority to delay something, then I think the rest of the American people ought to look at it. I don't think it's in keeping with our national interest under the circumstances we find ourselves.

Senator HOLLINGS. Senator Johnston.

Senator JOHNSTON. Thank you, Mr. Chairman. Mr. Secretary, we have been a little tough on you today and I want to say that while I find some things to criticize, I want to congratulate you for coming around as far as you have toward our thinking. When S. 3221 was

up last year; the Department of the Interior was rather strongly against it. I see, even though you are opposed to it now, some rays of hope. I do see some real cause for rejoicing in our camp that you are coming around.

If you have not embraced the idea of helping those coastal States to some form of revenue sharing, at least you are studying it and I see some grounds for hope.

Mr. Secretary, a moment ago when you were talking about exploration and development and about the idea that maybe the Federal Government ought to do the exploration and private companies do the development. I never heard the question addressed, or certainly not solved, as to where exploration ends and development starts.

We heard testimony the other day about Elk Hills. They have about a thousand development wells already there. Yet Interior wants to drill another 16 exploratory wells. We know down in Florida there was a lease sale out there. I think Shell got it and they spent \$130 million for it and drilled four dry holes at a cost of probably another \$100 million. But the area is still not condemned by any means.

Can you tell me any working rule by which you can say, when have you explored and when are you developing?

Secretary MORTON. I am going to ask Mr. Klepper to answer that because he deals with the technical aspects of that as part of the Geological Survey. Then let me, in a more general way, add something to it.

Mr. KLEPPER. Senator Johnston, as you are well aware, the sharp distinction between exploration and development is a spectrum of activities. For example, in the Gulf of Mexico area, there have been some 4,500 exploratory wells drilled to date and many production wells. Yet we have not finished and will not, perhaps, finish for a generation, the complete exploration of the potential of the Gulf of Mexico, although as Mr. Gaskins pointed out, one reaches a stage where the more desirable tracts have been explored and only those less desirable remain and therefore, economics catch up with you and you defer.

Senator JOHNSTON. The point I am making is you can't go out there with a drilling ship and punch one or two holes and say we have commercial pay so therefore, we have the basis to make intelligent bids on development. In other words, exploration continues and is a tremendous long-term process and a very expensive one.

Mr. KLEPPER. After 30 or 40 years, we still don't know the full potential of the Gulf of Mexico. In the frontier areas where not a single penetration has been made, no small number of holes will do more than begin to give an idea of what the resource potential is. We have had 30 or 40 years offshore in the Gulf of Mexico and still have not delineated the complete reserve potential.

Secretary MORTON. Let me add one thing to it, Senator Johnston. One of the rules of thumb that is used is that any well that is drilled less than 1 mile away from a producing well, is considered a development well. Any well drilled more than 1 mile away from a producing well, is considered an exploratory well.

Senator BARTLETT. Would the Senator from Louisiana yield for a question?

Senator JOHNSTON. Yes, Senator.

Senator BARTLETT. Are there not thousands of exploratory wells currently being drilled in Louisiana even though production has existed there many, many years?

Senator JOHNSTON. Not thousands; on the OCS we have—

Senator BARTLETT. I'm talking about onshore.

Senator JOHNSTON. Oh, yes; but of course, one of the points I want to make is there is such a difference between onshore and offshore. When you get off the coast of Louisiana, which I guess is the most hospitable area on the OCS anywhere for drilling, the calmest water, good weather most of the time compared to the gulfs and the Atlantic, it still costs you about \$25 million for one of those structure to go out there and there is no telling how much to operate. You have to have a whole host of supply vessels to go out there.

Nobody has say concept, I don't believe, of the capital requirements that will be required to explore that OCS and develop that OCS. We are going to have to more than double the amount of capital out in the OCS everywhere if we are going to even get close to what we think we can do.

Frankly, I think the whole idea of energy independence is almost laughable in the next decade. We will be lucky to stay even with where we are. Even to stay even, we have to put at least \$20 billion a year out there on the OCS.

How would the Federal Government get the kind of capital to do an exploratory program and how much would it cost?

Secretary MORTON. There have been several studies made and we are trying to update those. I went to New York to ask some economists to review all of the literature on this the other day. These are very broad figures but the feeling is among a good many students of this problem that it will take \$800 billion of invested capital to get us to our goals in 1985. About \$150 billion of that would be invested in technologies that would be fruitful far beyond 1985, but certainly represent investments that should be made.

Senator JOHNSTON. I am talking about on the OCS.

Secretary MORTON. In the whole oil area, the figure is around \$300 billion but this is very rough and it could well be more than this. How much, it is a little hard to tell because you don't know what you are going to find. For example, in the MAFLA tracts, the one you referred to, one of the other companies paid \$219 million for, they are dry so far. I understand there is still one hole to be sunk in one of them. If they are dry, you are not going to invest anymore money in them so it is very hard to say. But you are in the ball park when you talk about hundreds of billions of dollars in the whole OCS.

Senator JOHNSTON. How much would it cost to go into an exploratory program? According to this exploratory program here, it begins October 1, 1976. for exploratory drilling.

Secretary MORTON. Let me ask Mr. Klepper again who has done some work in that area.

Mr. KLEPPER. We have taken a preliminary look, Senator Johnston, at the range of costs that might be involved in exploration programs to get at the resource potential, the frontier areas on the Outer Continental Shelf. As I already mentioned, after 30 and 40 years in the Gulf of Mexico and some 4,500 exploratory wells, we still don't know the complete reserve potential.

Obviously there have to be judgment decisions made as to the limits that one is trying to detect. Is one trying to detect only the most important structures? Is one going to try to do this in a 5- to 10-year framework? We are talking in terms of hundreds of exploration wells and many billions of dollars, this sort of gross figure for even a preliminary exploration program of the total frontier areas of the Outer Continental Shelf.

Senator JOHNSTON. I am concerned about the fact that the Federal Government ought to get its full value for natural resource owned by all of the people. Speaking for myself, and I know for a big majority of the Senate, we would like to get as much information as we can so that we can see that the public is not ripped off.

I think, though, we need to know how much it would cost the public through Federal drilling to find out.

Secretary MORTON. I wish you could go down to the store and find that figure. I have been trying to get that figure. It is very, very difficult because of the nature of the job. It is exceedingly—you don't know how many barrels—

Senator JOHNSTON. I would suggest to you that we could get it within a ballpark estimate. We know what a drilling rig costs in rough figures—

Secretary MORTON. But you will have to assume a certain number of exploratory wells.

Senator JOHNSTON. That's right.

Secretary MORTON. That's the key figure.

Senator JOHNSTON. I think your Department, Mr. Secretary, ought to make some of those assumptions so that we in the Congress would know if we are considering one of these bills that involves Federal exploratory drilling, what kind of figures we are talking about.

Secretary MORTON. Take the North Sea experience and look at the variables that were in that and look at what happened to us down here in the MAFLA sale. We may have the two most expensive tracts that were sold being completely dry. The same thing happened out in the Santa Barbara Channel. I think the most expensive tract, everybody thought that was the best prospect and it was given back to the Government, it was dry.

How do you make this assumption and on what kind of a basis can you make it?

Senator JOHNSTON. You would have to give some guesses but at least try.

Secretary MORTON. That's what is apprehensive about these, guesses and they are guesses. I am with you, I would give anything to know and I think no one would like to know as much as the industry would in planning capital appropriations, what it is going to cost. This is a very difficult thing. I am apprehensive that we would bring an assumption up here and everybody would think that is gospel and it's not.

Senator JOHNSTON. I think, Mr. Secretary, if you made the guess with the assumption, then I think you would have some second thoughts about whether the Federal Government can afford it.

Secretary MORTON. I don't think there's any question about that, but I would still want to make sure that people would realize that this is an assumption. We can make these assumptions on the conserv-

ative side, on the liberal side. We can make them on an historical basis. But you are dealing in entirely different kinds of structures. It is a roll of the dice and that's one of the problems.

In any event, it is billions and billions of dollars. Let me come up with that and submit it to you and to the committee and show you how we did it. But realize what kind of assumptions we were forced to put into the formula in order to arrive at the figures and we will do that.

Senator JOHNSTON. One last comment—two last comments very quickly. First I would like to see you give us an estimate of whether the Federal Government has gotten its fair value. I don't know whether you've done that kind of assessment or not.

Secretary MORTON. I can give you a very quick figure right now. About 65 percent of all of the revenues, that is the total revenues that have been generated on the Outer Continental Shelf have gone to the Government.

Senator JOHNSTON. If we could get that in writing I think it would be helpful, together with some of these horseback estimates about the cost of exploration. You will have to make a lot of assumptions like defining what exploration is and how many rigs this would involve and some guesses as to what it would take, but I think that would be helpful.

Finally, Mr. Secretary, Senator Mathias does have a program that does hook in the Governors, not in the veto process but in the consideration process. I don't know whether he has the proper formula but that is a concern of coastal States, that they be involved. It is the concern of coastal States that they get some share, some recompense. Being from Louisiana, I don't want to see any veto and I don't want to see any delay.

My State is crisscrossed with pipelines and development of refineries and has oil wells all over it. The price of our State-owned oil is controlled. Our gas is sent out of State by FPC while our industries have cut back. Under those circumstances, I think it is outrageous for other areas of the country who have the oil and gas to sit on it and not let it be developed.

At the same time, we can't afford not to give these Governors some input into this process and some recompense. I hope your Department will study with us some kind of alternative. Perhaps Senator Hollings has some good elements and perhaps Senator Mathias has some good elements in those programs that will make this attractive enough for the Governors to allow that to be developed and developed promptly.

Secretary MORTON. I think the word allows is an important one and that's what you have to consider. This is a national resource and belongs to all of the people. It is the responsibility of the national Government to develop the resource and to conserve the resource. Certainly, we should have opportunity for no one to be hurt by it.

I agree with you. As you know, I am personally on the side of the revenue-sharing program and I am working with other elements of the Government to try to perfect one. I also believe that we should not run roughshod over the Governors but where do you draw that fine line that says a local government will subordinate the Federal Government? That's a very difficult thing to do under our Constitution.

Senator JOHNSTON. Thank you, Mr. Secretary.

Senator HOLLINGS. Mr. Secretary, before I yield to Senator Fannin, on the risk cost, in the University of Oklahoma study, you referred to it and in it, it said the total cost of exploratory drilling in the Outer Continental Shelf was estimated to be less than \$2 billion. We know that that is an outside figure for all exploratory drilling and we know that the taxpayers, the consumers of America, have it all passed on from the industry itself so there is no additional risk that you will be taking on holding this properly in trust for the people. I just make those two observations. There is nothing unusual in this at all.

Secretary MORTON. We have only scratched the surface, that's the problem.

Senator HOLLINGS. When you were talking about the other sale, you can take it away from the Navy. The Navy put 100 million bucks in the Outer Continental Shelf in Florida and it has been estimated to have about 2 billion barrels of oil. At \$10 a barrel, that would be an evaluation of 20 billion bucks. Why don't we get the Navy to bomb somewhere else and let's bring in the oil and gas? Is there anything wrong with that?

Secretary MORTON. There is nothing wrong with that, Senator. There was a little go around up at this end of town on that issue.

Mr. GASKINS. You picked a bad example because our preliminary analysis says there's no oil there. There may be oil in the portion under the Navy control—

Senator HOLLINGS. All right.

Mr. GASKINS. I point out it's not a reserve, it is still just a prospect. We have drilled right up to the edge of the dome and they are all dry holes so it is not clear that that is reserve.

Senator HOLLINGS. Senator Fannin.

Senator FANNIN. Thank you, Mr. Chairman. Mr. Secretary, we have been very encouraged with the statement you've made. I missed out on the goal you stated you had as far as the Outer Continental Shelf was concerned. Am I correctly informed that you have 4 million barrels of oil a day contemplated?

Secretary MORTON. We have 1½ million net increase built in our economic analysis and in our Project Independence. I would hope, maybe being an optimist, that we would exceed that and one of these frontier areas would really hit and if that could be true in the Gulf of Alaska or the Atlantic or off California, I think we should try to exceed the 1½ million, double it and hopefully, get to around 4 million barrels. That again has all the hope in it that I guess every oil man has in his heart when he goes out to take these risks.

I am just in hopes that we are going to exceed the hard core 1½ million additional net production that we have built into our assumptions and into our project independent spectrum.

Senator FANNIN. Thank you. In your conclusion, you say that, apart from the OCS revenue-sharing legislation questions and the oil spill liability bill, the response accelerated OCS leasing program can be and is being developed on the OCS Land Act of 1953. I think that is encouraging, to know that you can go forward and in your report, it indicates that you are going forward. I don't think any of us are satisfied with the progress we are making in meeting the tremendous challenge we have. But all we can do is try our hardest to meet the problems we have by the tremendous burden on this Nation of having to import 7 billion barrels of oil a day.

I am pleased, too, that your report as far as the Governors' Conference is concerned, solicitors informed you that such objectives could be accomplished under current provisions of the OCS Land Act. I am concerned, inasmuch as you are confident that we can go forward under present legislation, I am concerned as to what will happen if we get involved in so many other areas in speaking of the exploration by the Federal Government, the experience we have had in private industry and carry on with the work being done by private industry, we have one record of success and that's the space program and a million failures.

I am not criticizing the responsibility of the Federal Government, the agencies represented here today. I know the agencies can work very beneficially in assisting and in having a repository of information and getting the data together and doing many services that are vital to our country in the development of our national resources. I go along with it.

But the record of achievements by the American oil companies, other than that they have not done very much in my own State, all the oil they have found is on the worthless land we pushed off to the Indians. Then there's oil and gas and uranium and coal and all these other benefits that I think the good Lord took care of since and I am glad that he did.

But we do know the American oil industry is the envy of the world as far as success is concerned. I am not ashamed to stand up for the American oil industry and what they have been able to accomplish. I just think that we should be thinking about cooperating to a greater extent and working with them rather than go in competition with them and saying that they are not doing a good job. What are your thoughts in that regard?

Secretary MORRON. First, the question of comparing this effort with the space effort. There was very little competitive reason for various people to go to the Moon. It is an entirely different type of project. I don't see any reasonable substitute. I see areas of improvement but reasonable substitute from using the free enterprise system as the competitive impetus of it to develop the natural resources of this country.

One of the paradoxes that I live in here in this strange world and I was brought to the woodshed this morning by not coming up with changes in the legislation to do this. I have been reviewing and bringing before the Interior Committee all 4 years that I have been Secretary of the Interior, changes in the 1872 mining laws. I have been bringing amendments to the 1920 Leasing Act.

I don't want to beat over the head altogether. If we want to have some changes in the OCS Act—the Outer Continental Shelf Act—and maybe when we get down to the question of revenue sharing and can work this out, we will propose some changes. But I got the feeling early on in this hearing that we were kind of hiding under the legislation.

I would hope that the committee, in its wisdom, would review the 1872 mining laws and the 1920 Leasing Act and review some of the changes we have suggested year in and year out to those acts.

Senator FANNIN. Well, Mr. Secretary, I wholeheartedly agree with you and I feel that what you have stated here is very sound, the revenue-sharing legislation and the oil spill legislation, those are two

areas that I know are vital and the public is demanding something as far as oil spill liability legislation is concerned. I agree with you, too, as far as changes in the mining laws. We are making changes, all right, bad ones.

In fact, what we have done this week, I think, is just in the opposite direction of what we are talking about today. Here we are in the mining legislation covering coal as the Secretary well knows, we are giving veto power, veto rights, to the surface owner and taking away the rights of all of the people to develop their own resources. I think this is a tremendous mistake. I feel that here we talk about what is happening in the Outer Continental Shelf and other areas and get all excited about it and here we don't even hear a peep out of anyone.

We certainly haven't had any voice of the public because they don't realize what is happening. They don't realize that they are losing these billions of dollars of the assets that belong to the people but that is exactly what is happening. Mr. Secretary, I commend you for what is being done. I am not satisfied with the progress until we can meet the tremendous obligations that we have. Nevertheless, that can't be done overnight.

I think if we all work together and work with industry, we are going to be far along the way in meeting the goals that we are talking about. If we start trying to condemn industry and say, no, they can't do it, we are going to do it, the record just doesn't speak for itself in that regard. But I do very much appreciate that we are making progress.

Senator Bartlett wanted to be here and was called away. But he did want to congratulate you, Mr. Secretary, for the attempts of the Federal energy resources in the Nation regardless of where they lie.

Senator HOLLINGS. Before I yield to Senator Bumpers on the score of delivering the mail, we had good service under the Government when you were a Congressman and it worked very well. It was when we moved to the private that we messed it up. I thought when we had our meeting last week on appropriations with respect to the Government overseeing the Geological Survey, the Department of Interior overseeing and working with industry, we ran into the adviser on the energy policies on the House side, Mr. Jack Bridges. He used to serve as the Director of the Joint Committee on Atomic Energy here on the Senate side. I wish you could go see him because he has a good memory as a young Navy shavetail of going into Teapot Dome and making the original drillings on behalf of the U.S. Navy and overseeing, out at Elks Hill where private industry explored and developed Elks Hill; and it was the Navy who found these petroleum reserves Nos. 3 and 4 up in Alaska.

So it has been the Government and it is a very interesting story under the leadership of Carl Vinson, Chairman of the Armed Services getting ready for World War II. It was a Government program under Carl Vinson's leadership that saved the day of Pearl Harbor because we had fine products in storage to keep us going during the year 1941.

So the Government has already been into this program, overseeing not only the exploratory but the actual drilling and development and that is why I wondered about the hesitancy on the part of the Department of Interior this time. Let me yield to Senator Bumpers.

Senator BUMPERS. Mr. Secretary, I don't think we have had any suggestions since this Congress convened to amend the Leasing Act or Mining Act from the administration. If any bill has come over, I am not aware of it.

Secretary MORTON. Not in this Congress, but we went through quite an exercise on the Leasing Act and on the Mining Act. We don't have any proposals at this point in time for the Outer Continental Shelf Act, the 1953 OCS Act. The mining laws—I am sure you are familiar with the work that was done by the Land Laws Commission. I happened to serve on that Commission when I was in the House.

We went into the whole spectrum of land laws and mining laws and came up with some fundamental recommendations. Then the administration, first in the Johnson years and then in the Nixon-Ford years, came up three times or four times with proposals of change to the Leasing Act and to the mining laws. They never got anywhere and I guess this year we are taking another look to see if we can come up with a different approach and see what kind of interest there is.

There's no use burdening this Congress and this committee with something that they are not interested in pursuing. It is not that critical. It is not something that is of an emergency nature but it ties in with the kinds of things we have been talking about here and we are dealing only now with oil. We are dealing only with gas when actually we have a tremendous mineral problem facing us in the future and certainly, we have in the near future, a severe problem dealing with the utilization of coal which must be substituted, in my opinion, in many areas for gas and oil if we are going to get from here to there in terms of independence.

Senator BUMPERS. Mr. Secretary, I just threw that out as an initial comment. What sort of criteria does the Department use in determining the evaluation of a particular tract?

Mr. GASKINS. If I might describe that briefly for you, Senator. What we do is develop a substantial volume of data on the—both geological and geophysical data—on what we think is beneath the ground. Based on this data, we ask our geophysicists and geologists to establish their own projective capability.

That means, for example, if a geologist will tell us that most likely the aerial extent of the pull of oil beneath the tract is 100 square feet or something like that or he will also tell us it could be as large as 1,000 square feet. What he does is give us a distribution of possible outcomes for the parameters that determine how much oil is down there and what it will cost to get it out.

We then take those individual probabilities about the important parameters and we computerize a model which translates individual parameters into an overall evaluation for the tract and generates cumulative distribution which says the oil under that tract, if there is any, could be worth anywhere from zero up to a hundred million dollars. Based on that—

Senator BUMPERS. How do you decide, what sort of price do you put on the oil?

Mr. GASKINS. The price distribution is placed on it by the economists in the Department. What we are guessing in this case is what the price of oil will be when the oil from that tract is produced in the future.

Senator BUMPERS. How far in the future?

Mr. GASKINS. Most of these tracts we have heard before, initial production might start at 3 years, in maximum production in 5. The field might produce for another 15 or 20 years. We estimate what the price will be throughout the lifetime of this field.

Senator BUMPERS. What are you currently estimating the price to be?

Mr. GASKINS. In the most recent estimates we used, we have distribution of prices that ranges on the low end, we say the lowest possible price is \$5.50 per barrel. The highest possible price we see in a 15-year period is \$11. I would like to point out that is in real dollars so what that says is there is general inflation in the economy, all those prices will go up and recognize that.

Senator BUMPERS. Do you provide for any kind of escalator in your lease agreement?

Mr. GASKINS. The escalator goes into our calculations. We escalate the prices along with prices in general. We take a percentage of the oil, 16 $\frac{2}{3}$ percent are most we have sold so far and as the price of oil goes up, the value to the Government goes up as well.

Senator BUMPERS. Do you make all this information available to the bidders when you offer—when you put it out for bids?

Mr. GASKINS. No, sir.

Senator BUMPERS. You do not?

Mr. GASKINS. They have their own geological information and we have our geological information. Some of it is common but we think, for example, in the Gulf of Mexico, we have access to every hole that is drilled—that we have more information than any single company.

Senator BUMPERS. Why would you not give that to them? Would that not help them better evaluate what they want to bid on them?

Mr. GASKINS. Under the rules for data acquisition we have been operating for the past several decades, that data is treated as proprietary. We are prevented by contract from taking company A's data and giving it to company B. We have proposed rules that in the future will enable everyone to enjoy the same data. In the future, in frontier areas we are proposing to disclose all the geological data within 6 months of its acquisition. In the frontier area then, all companies will have access to all the geological data.

Senator BUMPERS. How many companies are there in the United States who now have the technology and capacity to drill on the OCS?

Mr. GASKINS. I can supply for the record an estimate of how many can actually do the drilling. I would like to point out that there are literally hundreds that participate in the bid auction.

Senator BUMPERS. These are consortiums, I assume?

Mr. GASKINS. Yes, Driller Mack, an auxiliary of American Express, bids on the OCS. As far as actual drilling, the drilling is handled by specialists and I can supply for the record the number of companies who specialize in drilling.

Senator BUMPERS. Are there independent companies that have no close affiliation with major oil companies who do this kind of drilling?

Mr. GASKINS. Yes, sir.

Senator BUMPERS. How many?

Mr. GASKINS. That's what I will supply for the record.

Mr. KLEPPER. I would think in the order of several dozen.

Senator BUMPERS. Who are capable of drilling the OCS?

Mr. KLEPPER. Yes, sir.

Secretary MORTON. Many of the oil companies use just drilling contractors to do their drilling.

Senator BUMPERS. That was the point I was trying to get at.

Secretary MORTON. You would like to know how many drilling contractors there are operating in the Gulf?

Senator BUMPERS. Yes, who have that capacity. I assume that this is not only expensive but the technology is very sophisticated and there are not too many people engaged in it, but maybe I'm wrong.

Secretary MORTON. There are not thousands but there are a good many, several dozen, 50 or 60.

Senator BUMPERS. This is a speculative question but based on say, Baltimore Canyon—could you give me any idea as to what it would cost to sink a well there in today's market?

Mr. KLEPPER. On today's market to sink a well in the order of 14,000 to 16,000 feet on Baltimore Canyon, this would probably be in the order of \$4 to \$7 million.

Senator BUMPERS. How long would it take to drill?

Mr. KLEPPER. A few months, I would estimate though inasmuch, Senator, as there have been no holes yet drilled in the Baltimore Canyon area, it is difficult to be very exact. We can only estimate the properties that rocks will be penetrating from geophysical records. But drilling on Baltimore Canyon based on geophysics, is likely to be substantially slower than in the Gulf of Mexico. The rocks are likely to be harder, slower to penetrate by the drill, perhaps by a factor of two.

Senator BUMPERS. That figure, \$4 to \$7 million, are you talking about actual drilling costs?

Mr. KLEPPER. That's correct.

Secretary MORTON. Based on general conversations with people in this business, that's probably on the low side. The Navy is estimating that in PET. 4, of course you have a climate problem up there in Alaska but the Navy is estimating between \$7 and \$8 million per hole on land. They are deeper, I think.

Senator BUMPERS. I was going to ask if there was substantial difference in the depth.

Mr. KLEPPER. The cost will go up depending on the hostility of the environment. For example, estimates made on some of the offshore areas in Alaska, the Bering Sea, are in the order of \$15 to \$20 million a hole rather than \$4 to \$6 or \$7 million.

Senator JOHNSON. If the Senator would yield, would you ask if it was drilling ship or structure?

Senator BUMPERS. Are you talking about a drilling ship or a structure?

Mr. KLEPPER. No, no. This is not a structure as in the mild environment in the Gulf of Mexico. This is a drilling ship to drill an exploratory hole in a hostile environment.

Senator BUMPERS. Based on your current bids, did you not have some bids in February of this year?

Secretary MORTON. The south Texas sale, yes.

Senator BUMPERS. On today's market, about what percentage of the value of oil, about what percentage of that will the United States get under those bids?

Secretary MORTON. The history has been that the United States has gotten about 65 percent of all the revenues. That includes the bonus and the royalty.

Senator BUMPERS. I have been informed that in those February 1975 bids, that the bids came in over twice as high as the Department's evaluation. That caused me to wonder about the information that you had, your geological information.

Secretary MORTON. This was in the first sale after the big price increase that you are referring to, the south Texas sale?

Senator BUMPERS. It was, I think the south Texas tract but bids came in at over twice the value that the Department put on them.

Mr. GASKINS. Yes, Senator, some of the high bids on the tracts that we received was approximately twice the sum of our evaluation. That has been a historical pattern. But I can explain briefly how that would come about almost from a statistical point of view?

Senator BUMPERS. Certainly.

Mr. GASKINS. You have to remember the high bidder on every tract is the guy who is most optimistic about the potentials of that piece of land. If you look, for example, at the average bid on the land, they are much closer and approximately the same as what the Geological Survey says the land is worth. We are one bidder, we go out and say what we think the land is worth. Then there is an auction where a substantial number of the oil companies also look at the land and the high bid you are summing up is the most optimistic guy in the world. He's the one guy who looks down there and sees a lot.

I think the most striking case happened in the famous deaf-and-dumb sale. There were eight bids on the tract. The high bid was \$212 million, the second high bid was in the order of \$120 million. The third high bid was \$65 million and there were five major companies who bid less than \$60 million for this tract that the high bidder bid \$210.

Senator BUMPERS. There were only two bidders on the Texas tract, weren't there, on an average?

Mr. GASKINS. On an average there were. Many tracts had four or five, many tracts had only one. Almost half the tracts in that sale had only one bidder. Again, as I made the point before, when one person bids, he is the one person who sees a positive value. There may be a lot of other people who look at the tract and see a negative value. Again, he is the most optimistic guy looking at the tract.

If you really wanted to go over the statistical summary of the bids, it is amazing how much the oil companies disagree among themselves about the value of this land. We are like one of the oil companies, we go out there, put a value on it and our value is closer to the average evaluation that exists than the most optimistic individual.

Senator BUMPERS. If this Congress should decide to put the Federal Government in the drilling business and the oil business, would there be any reason why it would be very difficult? First we are already spending the money for the geological work in the Department of the Interior. And you tell me that the major oil companies simply contract with these people who are in the business of drilling the coastal zones of the United States. It wouldn't be terribly complicated for us to get in the business. Couldn't we just put the bids out instead of going through major oil companies?

Mr. GASKINS. It may not be complicated but it may be quite disastrous. One thing I would like to point out is the important question is where you drill the hole and how deep you drill the hole. Major oil companies don't leave that up to the drilling companies. They have staffs of thousands of geophysicists and geologists figuring out what is the best strategy—

Senator BUMPERS. The Department has, too, doesn't it?

Mr. GASKINS. We have a geophysical staff and geology staff probably the size of a middle-sized oil company.

Senator BUMPERS. How many geologists do you have in the Department?

Mr. KLEPPER. Total geologists in the Department of Interior, perhaps 2,000. But they are involved in a wide range of studies related to water resources, mineral values, geological hazards in connection with direct association with offshore hazards in connection with direct association with offshore activities, there are perhaps 100.

Senator BUMPERS. The Secretary said that Interior's capability in this area is as good as any company's.

Mr. GASKINS. That's because we don't generate the geological data, Senator. We get the geological data free. Whenever an oil company drills a hole in the Outer Continental Shelf, they have to submit the records from that hole to the Geological Survey. We are not in the process of generating the data, we get all the data free. If you read the Secretary's statement, that's what he is referring to, the fact that we have more geological data than any single company because we require that it be given to us. We're not in the process of generating it. We don't drill the holes.

Senator BUMPERS. It would not be terribly difficult, would it, if we just want to contract someone to drill a particular tract and own the oil ourself?

Mr. KLEPPER. Not at all but prior to that, Senator, in order to determine those tracts where the Government would have the best possibility of indicating substantial resources, this is a major job of contracting first for geophysical information, geological information, and then evaluating this information to be able to focus in on these targets where one would contract for actual drilling.

Senator BUMPERS. The only reason I have discussed this issue with you is because we are here to talk about how we are going to get the OCS drilled. We are talking about several pieces of legislation here. Senator Hollings. Senator Tunney's, Senator Johnston's States are all visibly involved in this. I get the distinct impression that one, while we all champion the free enterprise system, there really is no competition in the oil industry.

Two, I think the Governors of the States could have demonstrated the greatest concern on behalf of their people of what may happen to their coastal zones when this happens. I think the Governors would find, this is just a possibility that I am exploring, but I am not at all sure and I have been a Governor myself. I don't have any more trust in Government activities than any other Governor has.

But I think in this case, a Governor might be more amenable to the United States drilling this and it might alleviate some of their fears and apprehensions. Some of them will testify this afternoon and I want to explore that possibility with them.

Mr. HUGHES. One point I might clarify. Our concern about the Government becoming the entity that drills the holes is you would centralize risk taking or centralize the geological decisionmaking in one body. We use the analogy that the Geological Survey is comparable to a middle-sized oil company. But if you ask a number of geologists in our company or the number of geologists total, there might be 30,000, 40,000 geologists in this country.

The oil industry, as a competitive industry, takes risks and bets that they ought to drill a hole here, there, or someplace else. If the Government becomes the entity that makes those decisions, our concern is that one governmental official will decide where the hole should be and he might be wrong more times than he is right and we might have lost one of the great values built through our free enterprise system.

Senator BUMPERS. When you lease the Baltimore Canyon, if and when that day ever comes, when you start leasing it, under the terms of your lease, people who bid that will go out and drill that and they will take a chance on it. If they hit a dry hole, it doesn't cost the United States anything; is that correct?

Secretary MORTON. It doesn't cost a thing. If the Exxon lease in the MAFLA sale is dry, the Federal Government or the people will have gotten for those dry holes \$212 million.

Senator BUMPERS. What would you say, based on information that you have at your disposal, the chances are of Exxon hitting a dry hole in the Baltimore Canyon?

Secretary MORTON. If I could answer that very accurately, I wouldn't be right here, I don't believe.

Mr. HUGHES. Senator, it might be instructive—it might be instructive that there are various ratios of dry holes to actual finds of oil. I think there is a national average of total numbers of holes filled 50 to 1, 50 dry to 1 oil. On the OCS, I think it's 1 to 20. So there is a ratio that people operate from and that's always a possibility.

Secretary MORTON. This is a real problem. If this was like coal, where you can very easily determine the location of coal and you have, you would be dealing with one type of thing. But the state of the art is nowhere near this. Though there have been improvements in the state of the art, still, look at the North Sea history. Most of the people have picked up their marbles and gone home. One company decided to stick it out and their decision was to dig one more hole and they did and they hit it.

Senator BUMPERS. Mr. Secretary, I don't want to denigrate the North Sea story but I don't believe we've had a hearing in this committee since I've been here when that story was not related to us.

Secretary MORTON. Maybe it's getting around.

Senator BUMPERS. I can't feature any company putting up \$212 million without an almost certainty that they will find oil.

Secretary MORTON. I hope that you will get them here because this country, if they had not been willing to do it, we would be in the horse and buggy age.

Senator BUMPERS. Thank you, Mr. Secretary.

Senator HOLLINGS. Before I yield to Senator Mathias, there is no reason for an experienced legislator to give the impression that people are not paying for dry holes. You and I know, through the taxes, direct drilling costs, they are added to the cost to consumers. It will be the same impact one way or the other.

The taxpayers of America are footing this bill and supporting and subsidizing the dry holes for this tax program.

Senator MATHIAS.

If the committee would indulge me in a personal word before we get to my questions, I've been sitting here this morning contemplating the vast industrial enterprise we are talking about, the industrial enterprise of a scope that has almost never been undertaken in a concentrated comprehensive way by any society.

I take great comfort in the fact that this is led by Secretary Morton who not only has the vision to contemplate such an enterprise, but has an enormous feel for the world in which we live and the kinds of qualities in that world in which we live.

I think we can all take a great deal of comfort from his feel for the environment, particularly for the marine coastal environment on which not only our sense of esthetics has passed but so much of life itself has passed.

Now, Mr. Secretary, I have just a couple of questions and then, Mr. Chairman, I would ask unanimous consent that the balance of my questions could be submitted for the record and the Secretary's answers could be provided in writing.

Senator HOLLINGS. It will be so ordered and I have some questions to go along with the Secretary because the Secretary is running out of time, too.

Senator MATHIAS. Very briefly, there is an assumption crept into the dialog this morning that the Department of the Interior itself would be doing all of the exploration under the several proposals that have been made. Just to clear that up, isn't it in fact true that what we are talking about is exploration by a number of private companies who probably operate on a contractual basis with the Department, if the Department undertook the exploration? This would not be public exploration but private exploration.

Secretary MORTON. I would have to ask first, where is the decision going to be made as to what area the drilling will take place and to what depth? Who would make the basic strategic decision? Sure, you can hire a drill and a drilling ship, but the question is, where would that ship go and how deep would it drill and who would make that determination? That really is the question that has to be answered before I can answer you.

Senator MATHIAS. I think the Secretary has posed for us the question that has to be decided, where we are going to go, if we are going to divide exploration and production as to independent operations and if the decision is that exploration should be done on a different basis than production, then it can be done, contracted out by the Department rather than done by Department personnel, just so there is no misunderstanding.

Secretary MORTON. Let me make sure there is an understanding of what is done now. These tracts selected for sale, this is not the result of a haphazard system of drawing lines on a map and putting properties up for sale, for lease sale. It is the result of a nomination process so that early on, we find out the interest of those kinds of people who are competent and what we would like to do is, we would like to extend the nominations process more to the public and to the States so that they can enter right into it.

If there is a tract that a State Governor feels would be very detrimental, this would be exposed in the nominations process. Then we finally have to make a decision, the Government does under regulations, as to which of those tracts we offer for sale. So there is an exploratory element in the decisionmaking process now which results in the selection of tracts and I think that should be fully understood.

Senator MATHIAS. I think that is a useful comment. In addition, the nominating process could continue and the Department could draw on information from many sources, whichever way we went on the exploration question.

Secretary MORTON. Why would there be any reason for an oil company to develop the geological components that are required? I would assume that 95 or 98 percent of the geologists in America worked for mining and resource development companies and their work is directed toward the very high-risk decisionmaking process that those companies have to take.

If we are going to decide here in Washington, where and how deep, why would anybody spend the millions of dollars in the seismic work, geophysical selection and all the rest that is required for them to make this high-risk decision?

Senator MATHIAS. Mr. Secretary, one final question. Recently, the Department sponsored a conference at College Park, Md., on the environmental impacts on the marine environment. I am wondering if the Department is planning or would be willing to hold a conference of a similar nature to explore the effects on the coastal environment as distinguished from the marine environment?

Secretary MORTON. Sure we would. This, I think, was a conference of our OCS Advisory Panel which we have put into effect and does have representation in the States. It works on baseline data and, hopefully, brings in points of view from environmentalists, from marine biologists. This is a very active group and it is headed by a distinguished scientist, Dr. Frank Clark, who is with the Geological Survey and has a deep interest in this.

We would feel that any mechanism, whether it be through conference or a solicitation of opinion which they do on a one-to-one basis, we acquire it. I think the answer is yes, we would be willing, to the limit of our resources, to open the doors of communication anywhere we can on this problem.

Senator MATHIAS. I welcome that response. Our mutual friend, Dr. Gene Cronin, I think was chairman of the conference of the marine impact. That conference was highly successful and very useful. At the same time, I think the participants felt that there was an opportunity to go forward into the coastal area, which their agenda did not permit them to do. I welcome your acceptance of that concept.

Secretary MORTON. One of the things that I have been working on for a long time, and I am sure you are fully familiar with it—we are now trying to turn it another way hoping it might be embraced—is the whole question of land use planning. I think the Nation has reached a point where we can no longer grow like Topsy. We have to develop an institutional structure within our State and local governments that will permit them in an ongoing fashion to have a perpetual conference going of the very thing you are talking about.

I think we are there. Just because it failed last year and the year before, I don't think we should give up hope on working out some sort of program that will result in the States taking a strong and active role in developing land use plans for their States. Once this is done, then this whole problem as far as the impact on the shore, the socioeconomic impact particularly, I think is put into a different perspective.

Senator MATHIAS. I agree with you and I certainly support that effort.

Mr. Chairman, I submit the balance of my questions for the record. [Department of the Interior responses to Senator Mathias' questions:]

1. *Question.* If we are going to separate exploration from development, as I believe there is a consensus on these Committees and in the Congress to do, would you see a benefit in holding up in virgin areas until such a system is in place?

Answer. We feel that delay of frontier lease sales, pending development of a formal system that separates exploration and development on the OCS, would be unnecessary and unwise—particularly with the cumulative impact that delay prior to leasing can have on the overall OCS development process.

Production from the frontier areas lies three to eight years in the future after the time of lease sales. This provides considerable time for setting up new administrative procedures after the first sales have been held.

Moreover, we do not think that a formal separation of exploration and development need involve a drastic departure from current procedures. Development plans must be improved by the Department before any lessee can actually produce from his lease. We also anticipate that any Departmental decision on development plans will have to be reviewed by coastal States for "consistency" with their coastal zone management programs—once their coastal zone management plans have been approved by Commerce.

This, along with State and local jurisdiction over pipeline rights-of-ways and refinery siting, provides the foundation for the management system to which you refer. There will be time to build on this foundation even without delay of any OCS sales.

2. *Question.* Can you give these Committees an indication of whether Interior is going with regard to bidding for leases; will the restrictions on joint bidding by majors be sufficient to promote competition; what other devices are needed?

Answer. In order to insure the receipt of fair market value for the public's resources, the Department instituted a new system of resource evaluation at the March 28, 1974, OCS sale. The Department believes this Range Of Values method is a better indicator of value than the previously used single point estimate and results in a better representation of value and risk because it considers variations in input parameters, thereby reflecting uncertainty. The ROV method incorporated into the post-sale matrix has resulted in more tracts being rejected. Approximately 16 percent of the tracts bid on at recent sales have been rejected because the Department felt fair market value was not received.

The Department has published proposed rulemaking to ban joint bidding among the larger oil producers. The Notice appeared in the *Federal Register* on Friday, February 21, 1975. All interested parties had until March 25, 1975, to submit written comments to BLM. After analysis of these comments, the Department will decide whether or not to publish final rulemaking. Essentially the proposed regulation states that any person with an average net production in excess of 1.6 million barrels per day of crude oil, natural gas, and liquefied petroleum products will be banned from bidding with any other such person.

Proposed rulemaking is also being prepared on procedures to provide for more rapid disclosure of geophysical and geological data. The procedures provide for the following:

- geophysical data collected under exploration permits and leases will be made public within 10 years or whenever a lease is relinquished, whichever period is less;

- deep stratigraphic tests will be released 5 years after date of completion or 60 days after issuance of the first Federal lease within 50 geographic miles of the drill site;

- geologic data will be released to the public in 6 months.

Final rulemaking will be in effect by mid-summer.

The Department believes the new resource evaluation method, the ban on joint bidding and the more rapid disclosure of geophysical and geological data, will ensure the receipt of fair market value and will promote competition for OCS leases.

3. *Question.* To what extent should production plans be laid out by bidders? Should the quality of the production plan be a factor in determining who gets the lease?

Answer. There is no way that a bidder having no knowledge of the definite existence or location of a hydrocarbon reservoir can effectively make plans for production facilities. Assuming that a Government directed exploration program revealed the presence of hydrocarbons to prospective bidders, it would still be highly improbable that a bidder could and would rely on such information to plan the installation of one or more 20- to 40-well platforms, each costing millions of dollars. Sound production plans can be formulated only after many reservoir parameters have been determined, and these determinations are made during the course of development drilling. Without extensive development drilling, such parameters would be unknown to the Government but to the prospective bidders as well. Thus, until substantial exploration and testing has been completed there is no sound basis for formulating a development plan, let alone judge its quality.

4. *Question.* As I understand it, Interior's last OCS acreage offering in the Gulf was divided between bonus and royalty bidding. The majors went for bonus land and the smaller companies for the royalty land. Now I can understand why small companies avoided the large bonus bids, but why did the majors avoid the royalty land? Was the competition more intense for royalty land?

(a) Can you envision using powers conferred to Section 203 of S. 426 to assure equitably-priced oil to independents?

Answer. A preliminary study done by the Department showed that royalty bidding did increase competition (copy attached). However, the study also showed that this increased competition is necessarily at the expense of other desirable factors, such as timely development and maximum production.

The majors were hesitant about participating in the experiment partly because of a stipulation on the royalty tracts requiring mandatory utilization of structures. That is, all operators on the structure are required to work together to develop the reservoir as a unit, regardless of the number of tracts or operators. Large companies were opposed to this idea because they believed that a company which has won a royalty tract with a minimum bonus, has no real incentive to develop the tract; he will delay exploration of his tract pending results of exploration on nearby tracts, since utilization is required. We recognized this as a possible problem, but needed to include the stipulation in order to have a means for allocating the respective shares of production.

4a. As you may know, royalty oil is already sold by contract to independent refiners at current market prices. We feel that this is an arrangement that assures equitably-priced oil to independents.

5. *Question.* What steps have you taken since last fall to improve State participation in OCS development?

Answer. Since last fall, the Department has expanded the role of the States in the leasing process. They can now participate in the following areas:

A. Environmental Study Program—Representatives from the coastal States serve on the OCS Research Management Advisory Board which oversees the Bureau of Land Management's environmental study program.

B. Development of OCS Orders—The Geological Survey consults with the States in the development of OCS Orders. These Orders provide industry with the rules and regulations to be followed in exploration and production activities on the OCS.

C. Call for Nominations—Approximately 12 months prior to a sale date, the Department publishes a request for nominations in the *Federal Register*. All interested members of the public including the adjacent States are urged to nominate specific tracts which they would want to see studied further for possible inclusion in a sale. They are also asked to designate specific tracts which should be excluded from the leasing process because of environmental conflicts.

D. Tract Selection—Subsequent to receipt of the nominations, the Department makes a tentative selection of tracts. States will be consulted on the issues involved in the selection process. States will again be consulted before any final decision is made on tracts to be offered in a sale.

E. Draft Environmental Impact Statement—The DEIS contains a detailed environmental assessment on a tract-by-tract basis in addition to an analysis of the general environmental conditions in the area. The States are asked to designate representatives to participate in the actual preparation of this document. This request has been made to California, Atlantic coast Governors and to the Governor of the State of Alaska.

F. Public Hearing and Comments—After publication of the DEIS, a public hearing is held and States are invited to comment either orally or in writing. These comments are used in preparation of the Final Environmental Impact Statement.

G. Decision by the Secretary—After completion of the Final EIS and a Program Decision Option Document, a decision is made by the Secretary whether to proceed with the sale and if so the composition of the sale. The Governors of affected coastal States will be consulted before a final decision is made on what tracts are to be included in a sale.

Consideration is also being given to having the States participate in the inspection of leases and in the event a State has an approved Coastal Zone Management Plan, they will have to review actions which may affect land and water uses in the coastal zones. Such actions may include the approval of a development plan which is now solely the responsibility of Geological Survey.

6. *Question.* Last year I was successful in amending what was S. 3221 to provide the Governors with a way of protecting their States from adverse economic and environmental impacts. That amendment, as Section 210, is now a part of S. 521. It provides for review of your decision on the Governors' request by a Coastal Resources Appeals Board, composed of your colleagues, a number of whom we will hear from this afternoon. S. 426 also incorporates my amendment but makes Congress the final reviewing authority for your decision. I am not asking so much whether you like either provision, because I know the Administration vigorously opposed my amendment on the floor, but rather which approach, S. 426 or S. 521, you prefer?

Answer. It is the current practice for the Secretary of the Interior to work closely and in cooperation with adjacent States' Governments. Of the two approaches (S. 426 and S. 521), a Coastal Resources Appeals Board would be preferable (although neither is desirable). Such a board, consisting of the Vice President, the Secretary of the Interior, the Administrator of NOAA, and the Chairperson of the CEQ, would provide the most knowledgeable review panel. However, as pointed out in the Secretary's comments to the U.S. Senate on March 14, 1975, State representatives are already involved at key points throughout the OCS leasing process. The Department of the Interior does not agree with the provision of granting veto power to the States to postpone or cancel actions on Federal OCS lands, in that the resources of the OCS belong to the Nation as a whole.

7. *Question.* Under S. 426, the Coast Guard has prime responsibility for establishing and enforcing regulations. Do you agree with this approach? (See last paragraph on page 2 of NOPS Report)

Answer. We recognize that the Coast Guard is very capable of performing inspections concerning the personnel safety features of vessels and certifying their constructions. However, they do not have the experience or expertise for monitoring and inspecting Outer Continental Shelf oil and gas drilling and producing operations. To do this successfully, most efficiently, they would need to absorb the personnel and program now performing these functions under the Geological Survey. We believe the Geological Survey should continue to perform these functions, not only because they have the necessary experience and expertise, but also because they have demonstrated that they are able to remedy trouble spots in this enforcement program which were highlighted by several studies, one of which is mentioned in the National Ocean Policy Study Report. Recommendations from the study conducted by the National Academy of Engineering, another conducted by NASA and an internal study by systems experts within the Geological Survey have been evaluated and introduced into the lease management program. (See the enclosed report on the Work Group for OCS Safety and Pollution Control, May 1973.) Subsequent to this, two supplements (copies enclosed) have been published which include recommendations made as a result of the Oklahoma University Study called Energy Under the Oceans and the Council on Environment Quality Report entitled "OCS Oil and Gas: An Environmental Assessment." These reports outline revised procedures for the development

of new and revised OCS Orders which call for publishing proposed Orders in the *Federal Register* for public comment. Copies of proposed Orders are not circulated to the industry prior to publication in the *Federal Register*.

Also enclosed is a summary of actions taken since the Santa Barbara oil spill to improve the lease management program. Another enclosure is a letter to Congressman Henry Reuss replying to the Government Accounting Office report dated June 24, 1973.

8. *Question.* EPA has commented rather unfavorably on Interior's draft environmental impact statement for the Atlantic OCS. How do you respond to their comments? NOAA is designated lead agency for NEPA purposes under S. 426. How would this effect the program?

Answer. The Department of the Interior has never prepared a draft EIS for the Atlantic OCS. We assume you are referring to a draft programmatic statement dealing with a proposed increase in OCS acreage to be offered for oil and gas leasing. This statement did consider the Atlantic OCS as an area of potential oil and gas lease activity.

The agency which has the responsibility for preparing an environmental impact statement collects all the information available concerning the proposed action, and its probable impacts. Such a statement is not a justification or an approval of the proposed action, but represents the basic information available. The purpose of circulating draft environmental impact statements to other governmental agencies is to solicit comments on the adequacy of the impact description, in relation to the proposed action. The Department of the Interior invites and encourages such comments, and incorporates relevant comments into future draft or final statements. We also recognize that other agencies have different priorities and missions, and that their comments will reflect these differences.

The bill proposes that NOAA be designated as the lead agency for ensuring that NEPA conditions are met. This represents a needless transfer of responsibility from one agency to another. In this particular instance, NOAA does not maintain expertise in mineral and petroleum leasing, and the related potential environmental hazards. The Bureau of Land Management, however, does maintain such expertise and personnel, in both offshore and onshore operations.

Efforts are constantly being made to incorporate the specialized marine expertise within NOAA into baseline, monitoring and special studies programs. Furthermore, NOAA (along with other Federal and State agencies) provides valuable information as a representative of the OCS Research Management Advisory Board.

If NOAA were designated the lead agency for NEPA purposes, the current OCS program could be expected to experience delays in a critical energy development program.

9. *Question.* We all know that OCS development is a chancy business. The 1968 Texas OCS sale was overestimated by DOI by a factor of 2, by the industry by a factor of 10. Would we reduce this risk substantially by exploring before leasing and if so, would this help the smaller guy who has more trouble spreading investment around?

Answer. The uncertainty about the value of any given sale area could be reduced by government exploration before leasing. This would aid firms which are either more risk averse or which have more difficulty raising capital for risky investments.

On the other hand, it would be dangerous to undertake a very extensive pre-lease exploration program. If this were done, we would in effect be replacing the multiple exploration strategies of industry with a single consensus strategy of the government. The history of oil and gas exploration shows that consensus strategies are often inappropriate, particularly in new areas. At the very least, an extensive government exploration program might produce a lot of unnecessary dry holes. At worst, such a program might unjustifiably condemn an area and prevent any subsequent private exploration.

10. *Question.* We have a report that Louisiana loses \$38 million a year because of activities related to oil production. What are Interior's views on revenue sharing with the coastal States?

Answer. We recognize the fact that States may bear an impact because of offshore development. We therefore have been analyzing a number of revenue sharing alternatives as a possible means of providing compensation. We do not however believe the study you cited is an accurate assessment of the costs that are borne by Louisiana because of offshore development.

The estimate that Louisiana loses \$38 million a year because of activities related to offshore oil production originates from not considering the portion of governmental costs borne by Federal rather than State revenues. It also results from Louisiana's heavy reliance on oil severance taxes which cannot be applied to OCS oil rather than on income, sales and property taxes which would provide revenues to cover the costs of onshore activities.

11. *Question.* How would you feel about a system which provided the States with a certain level of income through revenue sharing and then discretionary grants for specific definable impacts. This would be a combination of what Senator Stevens and Senator Hollings have proposed. (Paragraph was quoted from the NOPS Report on OCS Oil and Gas and the Coastal Zone, page 2).

Answer. We have not at this time decided which, if any, of the many alternative revenue sharing proposals is best. Let it be reiterated that we are studying many, and all will be given thorough consideration.

12. *Question.* Can you evaluate the capacity of the industry to move into the OCS? How many rigs do they need? How many do they have? How many can they obtain? Give us a time frame on this.

Answer. We feel that the capabilities of industry to move into OCS areas is best enhanced by the Department's establishing a program and schedule for OCS leasing. In this way, industry will know in advance of Federal intentions and actions; hence, they can plan accordingly how to best utilize their capabilities to develop OCS resources.

The number of rigs which will actually be needed depends on a variety of factors, including the quality and amount of acreage eventually leased, and whether a practice of mandatory unitization of tracts is adopted in frontier areas. The unitization question is currently under study in the Department.

There are presently about 75 rigs operating in the U.S. OCS, with about 50 under construction in U.S. shipyards. According to a study on the availability of rigs, approximately 126 rigs will be available in 1976. A copy of this study is attached.

13. *Question.* How do we avoid boom and bust situations in rural areas of the coastal States? What are we doing right now to prevent it from happening?

Answer. The most important means for avoiding boom and bust situations lies in the proper planning for development. The States are currently preparing coastal zone management plans under the Coastal Zone Management Act of 1972. The institutions and processes for planning and management of development created under this program should be of considerable aid in planning for development in rural areas.

A further means may be the location of major new facilities near existing population centers and the early commitment to development of a permanent, diversified economic base that will survive long after the initial construction period.

We are presently preparing a request for proposal for a study which will analyze onshore impacts resulting from mid-Atlantic offshore development and provide a methodology for measuring them. This study will be funded jointly by Interior and the National Science Foundation and will be coordinated with the affected States. We plan to maintain a close liaison with the States and provide them with information available to us.

14. *Questions.* What conclusions do you draw as to present industry capability from the great increase in shut-in capacity on the OCS?

Answer. We have not seen a great increase in shut-in reserves on the OCS.

The number of shut-in well completions has continued to increase over the last few years. However, this does not indicate greater shut-in reserves, but rather that more wells are going off production as a result of depletion of the reservoirs, pressure decline, excessive water production, and mechanical problems. The majority of shut-in well completions do not have potential for production, and are awaiting abandonment. All such wells are currently being reclassified by the Geological Survey to indicate their potential for future production.

Although shut-in Federal leases in the Gulf of Mexico have continued to increase in number as leases became more numerous, shut-in leases with production potential have decreased in number during the past year.

| | Leases in primary term | Leases in extended term |
|--------------------|------------------------------|-------------------------------|
| January 1974 | 60 | 96 |
| January 1975 | 61 | 59 |

The FPC Report, July 1974, on the reserves underlying the extended-term gas leases showed the average to be about 20.0 billion cu. ft. per lease. Due to the high costs of installing platforms, drilling wells, and connecting to a pipeline, many such leases cannot be considered as economical. A copy of the FPC coded listing of the shut-in leases with reserves is enclosed. Also, a copy of OCS Order No. 4 is enclosed showing how a discovery well is qualified as producible by regulatory process.

Two studies are being conducted by the Geological Survey; one an investigation of all nonproducing leases to insure operator diligence in the development of these leases, and the other a study of all oil and gas reservoirs. A well may have penetrated several reservoirs some of which are not on production yet. A well is limited in the number of reservoirs that can be produced at any one time, and the study is being conducted to determine such cases and to insure diligence in the development of known reservoirs.

15. *Question.* Your Department sponsored a conference of scientists at College Park, Maryland to evaluate environmental effects on marine environment. Have you or will you hold a conference to explore the effects on the coastal environment?

Answer. Secretary Morton supports the concept of a conference for the Mid-Atlantic on the onshore environmental impact of OCS development. The scheduling and format of this meeting are currently being studied by the Bureau of Land Management and the Department of Interior.

ATTACHMENT

Changes in the OCS lease management program since the Santa Barbara blowout on January 28, 1969, to insure better environmental protection and resource management include the following:

The number of inspectors has increased from 7 to 43; 18 more are being hired in FY 75. The total inspection staff (including supervisors, engineers, and supporting staff, as well as inspectors) will have been increased from 12 to 126 during FY 75.

Six new OCS Orders and 9 revised Orders have been issued (2 new and 4 revisions are currently in process). These include more stringent requirements for:

- Casing depths and cementing practices
- Blowout preventer equipment and mud monitoring instrumentation
- Remotely-actuated subsurface safety valves
- A reporting procedure for all safety valve failures
- The completion of oil and gas wells
- Pollution and waste disposal
- Installation and operation of platforms, including safety and pollution control equipment
- Oil and gas pipelines

(Public participation in the development of OCS Orders is accomplished by publication of notices and draft Orders in the *Federal Register*.)

At the request of the USGS, safety management studies were made by a team of specialists from National Aeronautics and Space Administration (NASA) and a committee of the National Academy of Engineering (NAE), as well as by a USGS team of analysts, and responses were made to all recommendations, incorporated in 15 categories as follows:

1. Failure Reporting and Corrective Action
2. Accident Investigation and Reporting
3. Information Exchange
4. Research and Development
5. Standards and Specifications
6. Systems Analysis
7. Engineering Documentation
8. Wearout Prevention
9. Training and Certification
10. Motivation Program
11. Lease Management Program
12. Inspection Procedures
13. OCS Order Development
14. Standardization of Forms
15. Safety and Advisory Committees

Additionally, the recommendations of a technology assessment of Outer Continental Shelf oil and gas operations by an interdisciplinary team under the

egis of the Science and Public Policy Program at the University of Oklahoma were reviewed and wherein they are different than the applicable recommendations made in the three aforementioned studies, implementation actions are being taken where appropriate. This has resulted in four more recommendations in the following categories:

16. Memorandum of Understanding with OSHA.
17. Memoranda of Understanding on pipelines.
18. Memorandum of Understanding with EPA.
19. Subsea production systems.

Similarly, recommendations from the CEQ Report on OCS Oil and Gas—An Environmental Assessment have been reviewed and have been incorporated in the Lease Management Program as appropriate.

A Review Committee to serve as an independent audit of the effectiveness of USGS operations and procedures was established under the aegis of NAE.

Established procedures for the development of standards for offshore safety and pollution prevention equipment that permits the general public as well as the industry to comment on their scope.

A "Safety Alert" system was established to immediately notify all operators of failures and accidents in order that they can take appropriate actions to prevent reoccurrences.

Contracts were let for systems analysis studies for application to OCS operations; requirements for such analyses are currently being prepared.

Inspection procedures were standardized and systematized to prevent arbitrary actions by inspectors and to gather data for guidance in making changes or additions to procedures and regulations.

Regulations were issued requiring environmental assessments of drilling and production proposals, as well as for the preparation of Environmental Impact Statements.

The Offshore Operators Committee and the Western Oil and Gas Association were encouraged and responded favorably to setting up safety committees.

The USGS Conservation Division was reorganized to insure more responsiveness to safety and pollution control management. This is accomplished through:

- More clearly defined lines of authority.
- Better coordination.
- Faster response.
- New field units with responsibility for new requirements.

Accident investigation procedures were established with the requirement that reports of major accidents be made available to the public.

Operators are now required to submit contingency plans for oil spill containment and cleanup prior to any lease operations. Large amounts of boom and absorbent materials, power boats, and other oil containment devices are now available both in the Gulf of Mexico and off the Pacific Coast through cleanup companies supported by a consortium of oil companies involved in offshore operations.

A Notice has been issued that will require OCS operators to provide helicopter refueling stations on the OCS when needed by the USGS in the conduct of its inspection and lease management activities.

A map showing unstable bottom conditions in the Mississippi Delta area has been issued as a safety alert notice.

The Survey participates in the planning and conduct of environmental baseline studies prior to and after lease sales to determine the effect of drilling and production on the marine environment.

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., August 3, 1973.

In reply refer to: EGS.
Hon. HENRY S. REUSS,
House of Representatives,
Washington, D.C.

DEAR MR. REUSS: Thank you for your letters of July 3 to the Director, U.S. Geological Survey and to me, together with copies of the General Accounting Office report No. B-146333, dated June 29, 1973, entitled "Improved Inspection And Regulation Could Reduce The Possibility of Oil Spills On The Outer Continental Shelf." The opportunity for review and comment is appreciated. The Director's comments are incorporated herein.

Let me say at the outset that we share your concern about the need to further strengthen regulatory and inspection procedures designed to reduce oil spills and other undesirable consequences of oil and gas operations on the Outer Continental Shelf (OCS). Much progress has been achieved since 1969 in this objective, both through the tightening of regulations and Orders and through the development of our inspection capability. But we agree that still more effective capability and procedures are needed, and the U.S. Geological Survey is working hard to achieve them.

As the GAO indicates in some detail on pages 32-35 of its report, the U.S.G.S. has had several studies undertaken on our behalf by NASA, the Marine Board of the National Academy of Engineering, and internal groups to identify weaknesses in regulations and procedures on the OCS and to recommend remedial measures (we also have had available for study a "Draft Report of a Technology Assessment of Outer Continental Shelf Oil and Gas Operations" prepared by the University of Oklahoma under an NSF Grant, and the report of a conference on "Safety and Pollution Safeguards in the Development of North-West European Offshore Mineral Resources" held in London in March 1973). The analysis of the results of these studies was completed by a special Work Group in May 1973. I am pleased to enclose a copy of the May report, a press release announcing its completion, the Director's May 31 memorandum advising the Chief, Conservation Division, to proceed with the implementation of the Work Group's recommendations and his June 19 response outlining plans for doing so.

These plans for modification and improvement in our lease management program cover a broad range of recommendations and include, among others, the changes recommended by GAO. Some of these will take time to accomplish fully, but others will be accomplished shortly. The status of action on each of the GAO recommendations, in the order in which they are listed on page 4 of the report, is as follows:

1. Emphasize the need for inspection personnel in the Gulf Coast region to apply prescribed enforcement actions for violations of OCS orders unless deviations are authorized under circumstances specified by the region and properly documented in each case.

The U.S.G.S. Gulf Coast personnel have been reinstructed to apply prescribed enforcement actions for all violations, unless deviations have been authorized, by memorandum from the Chief, Conservation Division, to the Conservation Managers, Gulf of Mexico OCS Operations and the Western Region, dated July 17, copy enclosed. In part, this repeats instructions issued in September 1972, copies enclosed.

While the immediate purpose here is to see that regulations and orders are complied with fully, the inspection program has another important objective—namely the identification of weaknesses in OCS operations and the development of corrective measures. For this the G.S. will utilize not only its own records of reported violations and failures, but information required from the operators. OCS Order No. 5 requires them to submit quarterly failure-analysis reports on subsurface safety devices and as indicated in Recommendation No. 1, Failure Reporting and Corrective Action, of the enclosed May report of our Work Group on OCS Safety and Pollution Control, we are in the process of extending this to require reports on all incidents, problems, and failures that result in fires, reportable spills, or reportable accidents:

2. Reexamine the Pacific region's policy of not halting operations for violations of OCS orders and consider the advisability of shutting down individual wells to encourage the operator to promptly correct deficiencies.

As mentioned on page 15 of the GAO report, the G.S. is following the recommendations of the President's Task Force to pump oil from the three platforms on the Dos Cuadras structure in the Santa Barbara Channel, but it is not intended that this result in a no-shutdown policy for individual wells where a hazardous situation is found to exist. Reaffirmation has been accomplished by way of a memorandum, copy enclosed, from the Chief of the Conservation Division to the Conservation Manager, Western Region, requesting also that operators be informed that failure to take prompt remedial action will be taken as evidence of a knowing and willful violation and will be reported for action under the provisions of the OCS Lands Act:

3. Establish a realistic policy on how frequently each type of OCS operation must be inspected, considering the resources available and the risks of oil spills involved.

. As indicated in the Work Group Recommendation No. 12 on Inspection Procedures, the G.S. is in the process of further developing its inspection system to meet the GAO recommendation and other objectives as well. Part of the problem has been a lack of resources to make inspections as frequently as would be desirable and while past and future increases in allocations have and will strengthen our capability, we recognize that it is unlikely that we will ever have staff and funds large enough to inspect all operations frequently. As a means of achieving the basic purpose of inspection—to see that operations are conducted safely at all times—it is planned to include in OCS Orders requirements for lessees to conduct inspections on a scheduled basis and report the results in a specified format:

4. Consider establishing a formal training program for the inspection staff.

The G.S. inspection staff presently receives on-the-job training but as indicated in Recommendation No. 9 on Training and Certification of the Work Group report, we recognize also the need for formal training. The G.S. is working with industry and the American Petroleum Institute to develop standards and requirements for training personnel, and intend that G.S. personnel will participate in training courses appropriate to their responsibilities. In the meantime, Conservation Managers have been instructed by memorandum from the Chief, Conservation Division, copy enclosed, to institute a formal training program in inspection procedures:

5. Issue instructions covering partial inspections and inspections of remedial and abandonment operations.

This recommendation is being adopted as part of the steps described under Work Group Recommendations Nos. 12 and 13 on Inspection Procedures and OCS Order Development:

6. Issue regulatory orders to control erosion, workover and wireline operations, and certain concurrent operations from a single structure.

This recommendation will be adopted under plans discussed in the Work Group report under Recommendations Nos. 8 and 13 on Wearout Prevention and OCS Order Development.

The status of action with respect to the suggestions of EPA officials, listed on page 31 of the GAO report, is as follows:

1. More specific provisions could be written into the lease agreements regarding spill prevention and contingency plans in case of spills.

OCS Orders provide regulations concerning spill prevention and containment plans in case of spills. All lease agreements require full conformance with OCS regulations and Orders, which are revised and updated as needed to incorporate new standard requirements. Lease agreements themselves cannot be revised during the life of the lease except through revision of the OCS regulations and Orders.

The Bureau of Land Management prepares an environmental impact statement on each proposed lease sale containing a tract by tract analysis. Based on the results of this analysis special stipulations may be developed for inclusion in the lease, or recommendations may be made for revision of existing operating orders. Recently such a stipulation on the timely availability of containment and clean-up equipment in the event of oil spills was included in certain OCS leases in the Gulf of Mexico. The Bureau is continuing its efforts to gather additional and improved information both by contract studies and through environmental analysis teams which will aid in the development of additional improved lease stipulations:

2. The number of inspectors in the Gulf Coast region may have to be increased in view of the more than 1,800 platforms operating in the Gulf. More inspectors would be able to prevent more discharges of oil and induce lessees to improve their equipment and procedures.

As indicated above, we agree that more inspectors are needed. The Department's FY '74 budget will permit a further increase in the G.S. inspection staff and an additional increase is being requested for FY '75. As discussed above, it is planned to supplement the inspection capability by requiring the operators to make and report systematic inspections following prescribed procedures:

3. Better preventive maintenance could be required of the lessees by (1) asking them to submit a preventive maintenance schedule, (2) prescribing a list of parts needed to periodically repair certain equipment, or (3) issuing a specific enforceable OCS order.

The first and third components of this suggestion are being met in part now under OCS Order No. 5 and Work Group Recommendations Nos. 5, 6, and 7 on

Standards and Specifications, Systems Analysis, and Engineering Documentation. Because of the great variation in OCS equipment—much of which is custom built—it may be impracticable to specify parts needed for periodic repair but we believe the objective EPA officials have in mind will be met by implementing the Work Group recommendations listed.

I have asked the Director of the Geological Survey to provide you with the information requested in the last paragraph of your letter of July 3. Accordingly, he has furnished the enclosed copies of the following listed written instructions and Orders applicable to the regulations and inspection of OCS lease operations in the Gulf of Mexico and Pacific areas:

1. Regulations Pertaining to Mineral Leasing, Operations and Pipelines on the Outer Continental Shelf.
2. OCS Orders 1-12, Gulf of Mexico Area.
3. OCS Orders 1-10, Pacific Area.
4. List of Potential Items of Non-Compliance and Enforcement Action, dated May 1971.
5. Drilling Inspection Report Form.
6. Production Inspection Report Form.
7. Notice of Incidents of Non-Compliance Detected (Form 9-1832, September 1972).
8. Memorandum dated April 12, 1971: Notification and Investigation of Accidents.
9. Memorandum dated June 1, 1971: June 3-7 Intensive Production and Drilling Inspection Strategy and Procedures.
10. Memorandum dated June 18, 1971: Implementation of Inspections of Activities other than Drilling and Productions.
11. Memorandum dated November 5, 1971: November 8-12, 1971, Blitz Production and Drilling Inspections.
12. Memorandum dated May 12, 1972: Blitz Production and Drilling Inspection, May 15-19, 1972.
13. Memorandum dated July 26, 1972; Blitz Production and Drilling Inspections, July 31-August 4, 1972.
14. Memorandum dated September 12, 1972: Inspection, September 18-22, 1972.
15. Memorandum dated September 17, 1972, transmitting a memorandum of September 5, 1972: Enforcement Policy.
16. Memorandum dated November 22, 1972: Inspection, November 27-December 1, 1972.
17. Memorandum dated January 24, 1973: Inspection, January 29-February 2, 1973.
18. Memorandum dated March 20, 1973: Inspection, March 26-30, 1973.
19. Memorandum dated May 30, 1973: Inspection, June 4-8, 1973.
20. Notices to Lessees and Operators, dated December 11, 1972, January 19, 1973, February 16, 1973, and June 1, 1973.
21. OCS Operations Safety Alert Notices, dated September 22, 1972, December 13, 1972, January 3, 1973, January 9, 1973, and June 15, 1973.

I believe the actions already taken and in progress testify to our determination to bring CCS operations to the highest possible level of safety and environmental protection. I am pleased, however, to give you my personal assurance that we will do all within our power to achieve this objective. To further assist us in this effort, and to help assure the public that our program is conducted effectively, the Director of the Geological Survey has asked the National Academy of Engineering to appoint a Review Committee of experts to examine their activities on a continuing basis, identify weaknesses and recommend actions, and make public their findings. This Committee held its first meeting on July 31 and August 1.

Again, I appreciate the opportunity to inform you about these activities.

Sincerely yours,

ROGER C. B. MORTON,
Secretary of the Interior.

Enclosures.

REVENUE FROM OCS LEASING¹
[In millions of dollars]

| Period | Current dollar | | | | Present value revenue ² | | | |
|---------------------|---------------------|---------------------|---------------------|---------------------|------------------------------------|---------------------|---------------------|---------------------|
| | Bonuses | | Value of production | | Royalty ³ | | Value of production | |
| | Case 1 ⁴ | Case 2 ⁵ | Case 1 ⁴ | Case 2 ⁵ | Case 1 ⁴ | Case 2 ⁵ | Case 1 ⁴ | Case 2 ⁵ |
| 1954-73 (actual) | 9,769.3 | 1,386.4 | 8,457.0 | 8,457.0 | 1,919.9 | 1,919.9 | 11,676.9 | 11,676.9 |
| 1974-85 (projected) | ----- | 7,510.0 | 32,307.1 | 45,060.0 | 3,070.5 | 4,204.7 | 18,723.0 | 25,228.4 |
| 1954-85 (total) | 9,769.3 | 8,896.4 | 41,364.1 | 53,317.0 | 4,990.4 | 6,124.6 | 30,093.9 | 36,905.3 |

NET VALUE OF PRODUCTION FROM OCS LEASES¹ (TOTAL REVENUE LESS BONUS AND ROYALTY PAYMENTS TO GOVERNMENT)

| Period | Current dollar | | | | Present value revenue ² | | | |
|---------------------|-------------------------------|---------------------|-----------------------------|---------------------|--|---------------------|-----------------------------|---------------------|
| | Gross revenue from production | | Net revenue from production | | Payments to Government (bonus and royalty) | | Net revenue from production | |
| | Case 1 ⁴ | Case 2 ⁵ | Case 1 ⁴ | Case 2 ⁵ | Case 1 ⁴ | Case 2 ⁵ | Case 1 ⁴ | Case 2 ⁵ |
| 1954-73 (actual) | 8,457.0 | 8,457.0 | -2,698.7 | -2,698.7 | 11,676.9 | 11,676.9 | 16,924.0 | 16,924.0 |
| 1974-85 (projected) | 43,060.0 | 7,510.0 | 27,422.6 | 37,550.0 | 18,723.0 | 25,228.4 | 4,304.7 | 5,352.5 |
| 1954-73 (total) | 41,364.1 | 16,640.2 | 24,723.9 | 34,851.3 | 30,093.9 | 36,905.3 | 21,128.7 | 10,106.4 |

¹ Includes only sec. 8 OCS lands—those leased under the Outer Continental Shelf Lands Act (1953).

² 1973 base year—10 percent compound interest and discount rate applied.

³ Royalty rate for all OCS leases is 16.67 percent.

⁴ Case 1 projected revenue based upon a price of \$5.25 per barrel for oil and \$0.35 per Mcf for gas.

⁵ Case 2 projected revenue based upon a price of \$7 per barrel for oil and \$0.50 per Mcf for gas.

Note: The present value revenue to the Government in bonuses and royalties represents the following share of total present value revenue from production: Case 1, 66.4 percent; case 2, 57.3 percent.

REVENUE FROM OCS LEASES

[In millions of dollars]

| Year | Current dollar | | | | |
|--------------------|----------------|--------------------|---------|--------------------------------|----------|
| | Bonus | Cumulative royalty | | Cumulative Value of production | |
| | | Case 1 | Case 2 | Case 1 | Case 2 |
| 1954 | 854.6 | | | | |
| 1955 | 603.4 | | | 0.1 | 0.1 |
| 1956 | | 0.3 | 0.3 | 1.6 | 1.6 |
| 1957 | | 1.0 | 1.0 | 6.1 | 6.1 |
| 1958 | | 2.8 | 2.8 | 17.1 | 17.1 |
| 1959 | 340.6 | 6.3 | 6.3 | 38.4 | 38.4 |
| 1960 | 975.8 | 12.7 | 12.7 | 76.5 | 76.5 |
| 1961 | | 22.1 | 22.1 | 132.7 | 132.7 |
| 1962 | 1,396.5 | 36.9 | 36.9 | 222.0 | 222.0 |
| 1963 | 33.2 | 58.8 | 58.8 | 353.4 | 353.4 |
| 1964 | 226.1 | 88.5 | 88.5 | 351.7 | 351.7 |
| 1965 | | 130.5 | 130.5 | 783.2 | 783.2 |
| 1966 | 407.5 | 195.8 | 195.8 | 1,175.4 | 1,175.4 |
| 1967 | 903.6 | 289.7 | 289.7 | 1,738.6 | 1,738.6 |
| 1968 | 2,168.5 | 417.5 | 417.5 | 2,506.2 | 2,506.2 |
| 1969 | 162.4 | 593.4 | 593.4 | 3,564.3 | 3,564.3 |
| 1970 | 1,256.0 | 827.7 | 827.7 | 4,987.2 | 4,987.2 |
| 1971 | 116.5 | 1,144.3 | 1,144.3 | 6,922.2 | 6,922.2 |
| 1972 | 2,476.5 | 1,506.5 | 1,506.5 | 9,142.2 | 9,142.2 |
| 1973 | 3,082.5 | 1,919.9 | 1,919.9 | 11,676.9 | 11,676.9 |
| Subtotal | 15,004.1 | 1,919.9 | 1,919.9 | 11,676.9 | 11,676.9 |
| Projected revenue | | 343.9 | 470.6 | 2,063.4 | 2,823.6 |
| 1975 | | 317.0 | 434.0 | 1,901.8 | 2,604.1 |
| 1976 | | 301.4 | 413.2 | 1,808.1 | 2,479.2 |
| 1977 | | 308.6 | 423.0 | 1,851.8 | 2,537.9 |
| 1978 | | 312.4 | 427.9 | 1,874.5 | 2,567.4 |
| 1979 | | 309.2 | 423.4 | 1,855.4 | 2,540.6 |
| 1980 | | 286.6 | 392.4 | 1,719.8 | 2,354.3 |
| 1981 | | 242.0 | 331.3 | 1,451.9 | 1,987.6 |
| 1982 | | 205.1 | 280.7 | 1,230.3 | 1,684.2 |
| 1983 | | 173.9 | 238.0 | 1,043.2 | 1,428.0 |
| 1984 | | 146.7 | 200.8 | 880.4 | 1,205.2 |
| 1985 | | 123.7 | 169.4 | 742.4 | 1,016.3 |
| Projected subtotal | | 3,070.5 | 4,204.7 | 18,423.0 | 25,228.4 |
| Grand total | 15,004.1 | 4,990.4 | 6,124.6 | 30,099.9 | 36,905.3 |

REVENUE FROM OCS LEASES ¹

[In millions of dollars]

| Year | Current dollar | | | | |
|--------------------|----------------|--------------------|---------|--------------------------------|----------|
| | Bonus | Cumulative royalty | | Cumulative Value of production | |
| | | Case 1 | Case 2 | Case 1 | Case 2 |
| 1954 | 139.7 | | | 0.1 | 0.1 |
| 1955 | 108.5 | | | 1.5 | 1.5 |
| 1956 | | 0.2 | 0.2 | 4.4 | 4.4 |
| 1957 | | 7 | 7 | 10.3 | 10.3 |
| 1958 | | 1.7 | 1.7 | 19.6 | 19.6 |
| 1959 | 89.8 | 3.3 | 3.3 | 34.3 | 34.3 |
| 1960 | 282.6 | 5.7 | 5.7 | 48.6 | 48.6 |
| 1961 | | 8.1 | 8.1 | 75.9 | 75.9 |
| 1962 | 489.5 | 12.6 | 12.6 | 109.2 | 109.2 |
| 1963 | 12.8 | 18.2 | 18.2 | 143.0 | 143.0 |
| 1964 | 95.9 | 23.8 | 23.8 | 198.3 | 198.3 |
| 1965 | | 33.1 | 33.1 | 313.9 | 313.9 |
| 1966 | 209.2 | 52.3 | 52.3 | 445.7 | 445.7 |
| 1967 | 510.1 | 74.3 | 74.3 | 593.7 | 593.7 |
| 1968 | 1,346.5 | 98.9 | 98.9 | 807.4 | 807.4 |
| 1969 | 110.9 | 134.1 | 134.1 | 1,066.5 | 1,066.5 |
| 1970 | 943.6 | 175.0 | 175.0 | 1,436.3 | 1,436.3 |
| 1971 | 96.3 | 233.8 | 233.8 | 1,527.7 | 1,527.7 |
| 1972 | 2,251.4 | 247.8 | 247.8 | 1,620.4 | 1,620.4 |
| 1973 | 3,082.5 | 262.8 | 262.8 | | |
| Subtotal | 9,769.3 | 1,386.4 | 1,386.4 | 8,457.0 | 8,457.0 |
| Projected revenue: | | | | | |
| 1974 | | 378.3 | 517.7 | 2,269.8 | 3,106.0 |
| 1975 | | 383.5 | 525.1 | 2,301.3 | 3,151.0 |
| 1976 | | 401.1 | 550.0 | 2,406.6 | 3,299.8 |
| 1977 | | 451.9 | 619.3 | 2,711.3 | 3,715.7 |
| 1978 | | 503.2 | 689.1 | 3,018.9 | 4,134.9 |
| 1979 | | 547.8 | 750.1 | 3,286.9 | 4,500.8 |
| 1980 | | 558.6 | 764.7 | 3,351.4 | 4,587.9 |
| 1981 | | 518.7 | 710.1 | 3,112.2 | 4,260.6 |
| 1982 | | 483.5 | 661.9 | 2,901.0 | 3,971.3 |
| 1983 | | 451.0 | 617.3 | 2,705.8 | 3,703.8 |
| 1984 | | 418.6 | 573.1 | 2,511.9 | 3,438.6 |
| 1985 | | 388.3 | 531.6 | 2,330.0 | 3,189.6 |
| Projected subtotal | | 5,484.5 | 7,510.0 | 32,907.1 | 45,060.0 |
| Grand total | 9,769.3 | 6,870.9 | 8,896.4 | 41,364.1 | 53,517.1 |

¹ Includes only sec. 8 lands—those leased under the Outer Continental Shelf Lands Act (1953).² 10 percent compound interest and discount rate applied.³ Royalty rate for all OCS leases is 16.67 percent.⁴ Case 1 projected revenue based upon a price of \$5.25 per barrel of oil and \$0.35 per Mcf for gas.⁵ Case 2 projected revenue based upon a price of \$7 per barrel of oil and \$0.50 per Mcf for gas.

Senator HOLLINGS. Thank you, Senator Tunney.

Senator TUNNEY. Thank you, Mr. Chairman.

Mr. Secretary, I certainly welcome you to the committee today and I want you to know that I personally have very high regard for you although we disagree on approaches in a number of areas. I am very deeply appreciative to you to meet with me and with constituents of mine when we have asked you to do so and I know that you have a great desire to do the right thing by the American people with respect to these resources that we are presently considering.

But that doesn't mean that I don't sometimes disagree with you as you know. My questions, I suppose, are really based upon my feeling as you have heard me express it, that these resources that are offshore belong to the American people and the American people are entitled to the very best deal that can be cut. I do not think that these resources belong, either now or potentially, to the oil companies until such time as representatives of the American people sign those assets away.

Therefore, I think that those individuals who have the public trust in hand and who are responsible for signing those assets away, have a very grave responsibility. We are dealing with billions of dollars worth of treasure that belongs to the people, the people of this country. I own a piece of it; you own a piece of it. But collectively, all of us own it until such time as we sell it under law.

Under your environmental impact statement hearings in Los Angeles, Trenton, and Anchorage, do you think the American people other than those directly involved in the industry are satisfied with your leasing program for 1975 and your impact statement?

Secretary MORTON. We just had a poll that was run by one of your distinguished colleagues. Senator Beall from Maryland. The indication then was, whether this was a cross-section of the American people I am not qualified to say, but the poll was overwhelmingly in favor of developing the resource which meant that the American people wanted to use it.

I would add to that by saying simply this. If these resources were taken away from us, if the final result, household gas, oil for our car, gasoline for our car, oil for our heaters and energy for our factories, if that was taken away and taken out of the economy and sent away, I would be very, very disturbed. Oil companies per se really, in a sense, do not own these resources. These are leases. The oil is not useable in its present form and the competitive free enterprise system is used to convert it into useable form and put it in the marketplace.

There is no place in the world in the sophisticated countries, industrial countries or third-world countries where energy and usable products from these publicly owned resources reach the consumer as economically as they do in the United States. It is very difficult for me to feel that when Gulf or Exxon or Hamilton or the individual entrepreneur leases a piece of property in order to develop the resource and put it in the American marketplace in a highly competitive fashion, that the American people are being robbed of an asset. They would not be able to use the assets if all of these processes did not take place.

So I am not sure that I am with you when you say that these assets are being taken away from the people.

Senator TUNNEY. I hope that I did not suggest to you that I proposed a permanent moratorium on the drilling of our offshore lands. It is quite clear to me that we are going to need that oil and gas. But it is also clear to me that we ought to get the best price for it and it ought to be drilled in a way that is going to have the least environmental and societal impact because my view is that much of that oil and gas, once production starts, will be depleted within 20 to 30 years and society, hopefully, will be around for a lot longer than that.

The impact of that drilling program could cause very serious ecological damage which would last far longer than just the development of those leases. But assuming that you proceed with the lease sales this summer in California, which is now anticipated to have leased 1,600,000 acres, specifically, how much oil and gas would you be selling to the oil companies? Do you have any idea?

Secretary MORTON. No idea. We just think there is a potential there. If I knew how many cubic feet of gas or barrels of oil, obviously we would disclose that information. But we think it is a very high potential. There is already gas and oil production fairly nearby, the structures look well. It is an opportunity but still there is a tremendous risk involved which we are all aware of.

The question that I think we should ask ourselves in order to continue this discussion, and I totally agree with you that we must do this in the most environmentally sound way. We must do it so that the people do get the maximum benefit and economic benefit from these resources.

But the question is, When do we need the oil? Based on the way we move ourselves about and our present reliance on oil, it is obvious that we are going to need large quantities of oil between now and the end of the 1980's when maybe other technologies can be in place to replace oil, when the further processing of coal can be in place, when we may have a great deal more use of solar energy and geothermal energy.

So we are in an oil age and we can't get out of it quickly. The question I have to come back to, I agree with you totally on the matter of value and on the matter of the environment. But I think what you and I have to agree on is time, when should these resources be developed?

I have the feeling, because of the lead time involved, whether the Government does this exploration or free enterprise does it, that this oil will be in great demand between now and the end of the decade of the eighties. We should proceed without undue haste but we should proceed directly in developing these resources.

Senator TUNNEY. I can't help but believe that if Exxon owned all the offshore lands that they would not sell sight unseen those leases to Mobil.

Secretary MORTON. I can't believe that, either.

Senator TUNNEY. I don't know why the Federal Government doesn't apply good business practices to the sale of those leases the same way that any major oil company would do it. What I am simply suggesting is, and I would concur with what Senator Bumpers was saying, the Federal Government ought to have a much better idea of what is out there before they sell it. This is particularly a problem in these days of recession because the economy is extremely soft. There has been a significant downturn in the last month in business investment, in plant and equipment. There is no longer the bullish feeling on

the part of business regarding the economy and the idea that the amount of money that is going to be offered for these leases for the oil and the gas is going to be substantially less than true value.

The problem is, once we sell it under our bonus bid program, it is gone for good. If it is worth 50 times what we sold it for, it's too bad, we've lost it. I think, that that is a very serious problem with the leasing program that the Department of Interior has, because it is based—forgetting the environment now. It happens to be important to me, but forgetting the environment and looking at in dollars and cents terms, it seems to me very bad business practice to sell sight unseen.

I can't believe that an oil company who owned those lands would do it.

Secretary MORTON. Let me add one thing. What you are talking about is the bonus money versus the royalty money. On the Outer Continental Shelf, we have been collecting 16 $\frac{2}{3}$ percent of all of the production. You might say, and I think very well say, this is not a high enough percent because we really don't get true value. If, at the time the bonus is bid, oil is selling at \$5 and then it goes up to \$10. The 16 $\frac{2}{3}$ percent royalty is not high enough. We are examining that.

We found from these royalty sales that what you get if you build totally on a royalty basis, you get irresponsible bidding. These royalty sales actually came in somewhere near 80 percent. Our present costs of offshore oil, actually to get the oil to the surface and get it ashore are such that the oil would have to be selling for \$35 or \$40 a barrel, assuming a rather modest discovery. So royalty bidding has to have some ceilings on it.

But I am very much concerned with this and at the present time, I am trying to see if we are in a stabilized price market, what kind of a royalty should we extract from production to insure, based on value changes as we go downstream, that everyone is fully protected.

History will show that 65 percent of all of the revenues that have been generated from the Outer Continental Shelf, all the money that has gone through the cash registers of the producers and vendors, 65 percent has gone to the Government. So we actually have been getting more than the oil was worth in one sense.

But whether the Government explores and tries to develop a value system or whether we do it through a competitive bidding system, I think, is not the issue. The issue is, what kind of a price should the Government extract on a production basis from each barrel of oil that is produced and this is a very difficult thing to do.

Mr. KLEPPER. May I make one further point, Senator? The Department will not go in and make these sales sight unseen. In connection with these leases, there is a great deal of geological and geophysical information, data, will be analyzed in considerable detail by geologists and geophysicists of the Department in order to determine fair market values before any lease sale is approved.

Senator TUNNEY. But the Secretary indicated that there is no way that he can tell how much oil and gas is out there and he indicated in response to an earlier question on Baltimore Canyon that if he knew that, he wouldn't be sitting where he is. He would be out there drilling. I don't blame him.

Mr. KLEPPER. That's right.

Senator TUNNEY. But the problem is, we don't know and the other side of the problem, it is of course, multifaceted but the other side of the problem is the guarantees that we have that once the leases are let, that there will be development. What guarantees do we have—I would like to relate that question to another one. How many leases have been terminated in the last year or two for lack of diligence? We asked you that question last year, Mr. Secretary, and we asked you to supply information for the record. Apparently you were not able to do it, but it is our understanding, that no leases have been terminated.

Secretary MORTON. We get a lot of leases back, dry holes come back.

Senator TUNNEY. But no leases have been terminated in the last couple of years for lack of diligence on the part of the oil companies—

Secretary MORTON. We may have been lax because there has been—we were in a period of time and we have been for a long time in a period of time when there was very little profit on the Outer Continental Shelf. Most of the oil investment was going abroad. We move now into an era where the price level, where there is an opportunity for return on investment on the Outer Continental Shelf and we are examining leases for diligence and we have three right now that are questionable.

We are actually going at this with a considerable amount of vigor.

Senator TUNNEY. How many people do you have assigned to that, to check on that?

Mr. KLEPPER. With respect to total aspects of supervision, we have several hundred people. With respect to diligence, which is just one element, the monitoring of diligence, I would have to provide that for the record.

Senator TUNNEY. I wish you would because Prof. Paul Davidson and many others, but Professor Davidson at Rutgers University states that oil producers may be restricting oil production by reducing oil flows, reducing wells, shutting associated gas wells, and shutting down drilling activities on oil wells nearing completion. He has pointed out that current OCS leases are not exploited to their maximum potential and the Ford Foundation study indicates—

Secretary MORTON. We are trying to give anyone we can to identify those leases. We are in the process of trying to do it now. We have three, as I just said, that look like they may be in this condition. There is not a single drilling rig in this country that can float that is not being used. The limitation today on the rate of exploration on a given lease is maximized based on the equipment available.

There is one other aspect of this that has to be reckoned with. If exploration is made on tract A and tract B adjacent to it has not been explored and all of the exploration on the first tract indicates that the structure is dry, you are not going to get any exploration on the second tract because that would not be the most opportune place to use available drilling equipment.

That kind of lease, unexplored, might well pass into a condition beyond the 5-year rule. Somebody will have to make a commonsense judgment because if you force a person to go into a lease and explore it, when all of the odds have changed since the lease was purchased because of exploration that has been done around it, you are probably putting a drilling rig in an area where the likelihood of get-

ting oil is low and not giving it the opportunity to explore where the likelihood of oil is high and that is one of the difficulties in this whole proposition of leases and time limits on the exploration.

Senator TUNNEY. Mr. Secretary, one other thing that has come out of the hearings around the country is the general feeling that the Department of Interior has been, for decades, on too friendly a basis with the oil industry and the Department policies have favored the oil industry. There is this suspicion. I want to say just one thing—

Secretary MORTON. I want to ask you a question.

Senator TUNNEY. I want to make it absolutely clear, I am in no way implying that you are in any way anything but totally honorable and protective of the American peoples' interests as you see those interests. I am in no way suggesting that you, in any way, are playing it cozy with the oil industry. But this is the perception that the American people have with respect to the Interior Department and you know it. I am not telling you anything you did not know.

You just mentioned something in answer to a question which I consider a very serious problem as it relates to the California leasing and other leasing as well. There is a great shortage of equipment. I don't know why we have to go pell-mell with a major leasing program of 1,600,000 acres in California, 10-million acres around the country, when you know there is not enough drilling equipment in this country and won't be for the next 4, 5, maybe 10 years to go after that oil.

Why not make sure that we have a nexus between the supply of drilling equipment and the amount of land, the amount of offshore acreage being leased?

Secretary MORTON. That's why I backed off on the 10-million acres and eased it up a little bit. We have done precisely that. We have monitored the equipment availability and we feel we should go more in an exploratory sense rather than a volume sense so our actual leasing will be somewhat less than 10-million acres a year.

Senator TUNNEY. Can you tell us what it will be?

Secretary MORTON. A lot depends on the Supreme Court. We don't know if we can go into the Atlantic or not. If we go into the Atlantic, it could be around 5-million acres this year.

Senator TUNNEY. Is California going to get the million six?

Secretary MORTON. We haven't finished the environmental studies and we are not going to preempt the NEPA Act and I won't make the decision until I see them.

Senator TUNNEY. Are we going to make sure that we have the drilling equipment available?

Secretary MORTON. Nobody will put up the kind of money that they have to put up unless they have made arrangements for exploratory drilling. The cost of money is so great today that nobody will spend \$100 million or \$60 million for a tract and not be able to drill it. They keep their planning operations and exploratory operations well out ahead. In today's world, you just can't spend that kind of money.

Senator TUNNEY. Is that supposition on the Department's part or a fact determined in advance?

Secretary MORTON. That's a fact determined by the nature of the industry.

Senator TUNNEY. But the Department does not ask—

Secretary MORRON. We have a stipulation that says you do certain things in certain timeframes. They know what this is. They don't go into that blind. You are not going to have the bidders come in there and bid on more tracts, with the thought of getting those tracts, than they can handle.

Senator TUNNEY. But if I were, and I am just suggesting this as a possibility, if I were going to be bidding on these offshore lands and I saw a record in the Department of Interior where they never canceled leases because there is not due diligence or very rarely—

Secretary MORTON. We get them back in 5 years, Senator. If they haven't done anything on them in 5 years or don't have a plan, we get them back.

Senator TUNNEY. Can you supply for the committee the information on the number of leases that have been terminated after 5 years because there was not diligence shown in producing the oil and gas—

Secretary MORTON. Exploration—most of the ones that are terminated are given back because they are either not explored or they are dry.

Senator TUNNEY. What constitutes exploration?

Secretary MORTON. Drilling a hole.

Senator TUNNEY. You have to drill one hole. If you drill one hole, you've explored a new oil well, right.

Secretary MORTON. You'd better have an exploration program. It's not that simple.

Senator TUNNEY. We are interested in the involuntary terminations, not the voluntary terminations. The involuntary terminations, after 5 years because of lack of diligence. It would be very interesting to have that on the record at this time because you see, I think I approach it from a different point of view than maybe you do, and maybe you have to, because you are the Secretary of the Department being criticized.

But the suggestion is that the Department has been very soft on the companies and has not—they have not had the number of people going out investigating the leases and whether or not they are shut in, whether there is diligence in producing the oil and gas, whether they are cutting back on production hoping that the price of oil would escalate. So if you can supply the information on involuntary termination, say over the past 5 years, that would give us a pretty good indicator of whether or not the oil companies in any way are afraid of the Department of Interior being the big, bad wolf who will come in and terminate all of them if they don't produce.

I would say that that would be an extremely interesting data base from which to extrapolate a projection of what is going on in the oil companies' mind as to what will happen in the future.

Secretary MORRON. I think the oil companies are adequately concerned about what is going to happen in the future. We have leased 2,384 tracts. We now have, in effect, as of November 1974, 1,583 tracts. We have taken back all the difference.

Senator TUNNEY. Voluntarily or involuntarily?

Secretary MORTON. Because of the regulations.

Mr. KLEPPER. Both.

Secretary MORRON. Some people anticipate they will not do any more and give them back. Some people fail to do anything and we take them back.

Senator TUNNEY. What I would like to know is what the breakdown—

Secretary MORRON. The fact is when they are not explored, they come back. I think somewhere somebody has got to have faith in America and that is in our ability to do things. We have actually put together 2,384 tracts and we have been actually able to produce oil or gas or both on 1,583 tracts under the present system. We have actually been able to sell gasoline and heating oil cheaper here in the United States than anywhere else in the world.

Maybe we should get some sort of hostile environment between those people who are in business and other people. We have every kind of stipulation in our whole system, our antitrust laws, all of the things that deal with consumer protection. The question I raise is, What system is better? I think we are suddenly losing faith. I was a little shocked at your statement, John, when you said that we are not doing well. We have done pretty darn well. We have produced an awful lot of oil. We didn't start importing a lot of oil until after World War II and then we began importing oil because oil was cheaper in other parts of the world and there was no incentive.

But in spite of the fact that there was no incentive, we are producing at 1,300,000 barrels a day or more on the Outer Continental Shelf today and we are getting that oil ashore and marketing it as cheap as it is anywhere else in the world.

Senator TUNNEY. Mr. Secretary, I appreciate your responses to my questions. Senator Stone has been waiting here patiently.

Senator HOLLINGS. Senator Stone.

Senator STONE. Thank you, Mr. Chairman, and thank you, Senator Tunney. In your formal report, subsection G you report that that is the point at which decision by the Secretary is made. I read, after completion of the final EIS, environmental impact study, and a program decision option documented, the decision is made by the Secretary whether to proceed. Do you make public the program decision option documents?

Secretary MORRON. We have not in the past.

Senator STONE. Would you?

Secretary MORRON. We want to talk to the Governors about it. I have no feeling against doing it.

Senator STONE. I would appreciate it as an active partisan of sunshine if you would. I think everybody would not only enjoy reading it but it would help create the confidence that Senator Tunney reported was occasionally lacking.

Secretary MORRON. We see no problem with it.

Senator STONE. Wonderful. On page 5 of your statement, the bottom of the page, Mr. Secretary, you state, a very small probability of a major spill will always remain but the know-how and procedures exist now for greatly decreasing this probability and containing the effects of any spills that do occur.

I come from a State that is nervous, Florida, about spills. Could you describe for us this increased state of the art that gives us the know-how and procedures now for greatly decreasing the probability?

Secretary MORTON. I will ask Mr. Klepper, of the Geological Survey. He can give you a much more technical explanation. Let me say this. I hope Florida is nervous because the great majority of oil in the ocean that is washing up on Florida beaches comes from shipping and 40 percent of all the ocean oil comes from automobile crankcases.

Senator STONE. Let's stop at the stuff that comes out of the ships for 1 minute before we go to the answer of Mr. Klepper on the know-how's from oil spills from wells. Is it the case that that is from ships blowing their bilges as they pass by the State of Florida?

Secretary MORTON. It's from every possible source. That's one of the main reasons and we still have oil bubbling up from ships sunk in World War II.

Senator STONE. Isn't most of it from active ships cleaning their bilges out and flushing them out as they peacefully sail by?

Secretary MORTON. And I'm sure there are some of the older ones that are bleeding a little bit.

Senator STONE. Is there or is there not new technology to put bacteria into the holds of ships and flush out something that does not pollute the ocean and not at very great cost?

Secretary MORTON. I have heard about it. This would be a question, I think, you should ask the Coast Guard. This is in their bailiwick and not in ours but I have heard there is such technology but I have also heard that it doesn't work so I am not qualified to talk about it.

Senator STONE. Are we doing anything at all about denying our ports to those old ones that leak?

Secretary MORTON. Oh, no. Senator Mathias is gone but I have tried to deny the Chesapeake Bay to ships that did not meet standard qualities and I've almost been run off the planet. It is a very serious problem. It deals, of course—it's a big problem because international law, all of the things that you can well imagine are all in the formula.

Senator STONE. Mr. Secretary, I know that you are exactly accurate. Most of the oil washing up on Florida's beaches does come from ships and I would appreciate any help you can give us to see what could be done technologically to stop that process. It seems rather logical that we ought to be able to stop it.

Secretary MORTON. I would hope. We have a law of the sea conference coming up. This matter never does escape the laws of the sea and hopefully, we can do it. It is something that the Coast Guard has done a great deal of work in. I know that the previous Secretary of Transportation, and now I am sure that Mr. Colman will have the same great interest, in trying to do something to clean up the maritime environment. We are going to have much more control, for example, over the maritime leg of the Alaska-lower 48 maritime system than we have ever had before because these ships will be under the Jones Act and they will be under the American flag.

If the technology works, obviously we will put every possible thing into that but where the problem is, is the international side of it, as you well understand.

Senator STONE. I will be in touch with you about that and the Coast Guard because you are absolutely right. Most of it does come from ships but I can tell you, when public opinion gets outraged by the oil washing up from ships, it is transferred in their minds to the

possible spills from wells and all you do is revolt on the part of those who want to lease and develop offshore.

Secretary MORTON. We have had a lot of criticism and I think it is very good. I deeply respect what all of you are trying to do. The question I raise is, what are the alternatives?

Senator STONE. The alternative is to utilize all the technology to minimize the oil spill; if it comes from ships, to minimize it from ships, if it comes from wells, to minimize it from wells.

Secretary MORTON. And that's exactly what we are doing. Now as far as ships are concerned, the ship belongs to another nation, I have a little problem getting to the captain of that ship.

Senator STONE. Not if he uses our ports but, of course, as you said, they try to run you off the planet but you have one ally here.

Secretary MORTON. Let's try it. Let's close the port of Fort Lauderdale to international shipping next week.

Senator STONE. That leaks oil?

Secretary MORTON. You bet.

Senator STONE. I'm willing to try it.

Secretary MORTON. We ought to call Rubin this afternoon and ask him if he'll do it.

Senator STONE. He can't do it. There's a port authority down there but I will be glad to work with you.

Secretary MORTON. Would you like to hear a little bit about the technology of offshore drilling?

Senator STONE. Right. And then—you see, Mr. Secretary, I was not looking to close the ports where technology does not exist to ships to prevent the oil spillage. But I was and am looking to close the ports to ships if we have a feasible technology that they neglect or don't want to use. That is why I want to pursue this. But may I hear—since you are here—about the oil wells? Let's hear about that.

Mr. KLEPPER. Senator, during the past 5 years, the technology of prevention or minimization of risk of spills and offshore drilling has increased a great deal. During this time, the Department has issued some 8 or 10 different orders putting into effect further safety precautions so that at the present time, during the past 5 years in the hundreds of wells that have been drilled offshore, there have been no really major spills; there have been only minor ones.

Senator STONE. Perhaps this is not the right forum for hearing orally about the new state of the art. May I ask you to submit in writing for the record the technology of the new state of the art with regard to prevention and with regard to cure.

One last question. At what wave height, do we fail to contain the oil spills when they do occur?

Secretary MORTON. That, again, too, I would hope if we are going to get deeply into that that the Coast Guard will have an opportunity, they've done a tremendous amount of research.

Senator STONE. May I ask you to gather that from them and submit it. Not with regard to the ships because that's not part of this but with regard to the prevention of the—

Secretary MORTON. I will be glad to do that. I will request the Secretary of Transportation to provide you with this information. I am sure he will draw on the Coast Guard to get the technical data that you want.

Senator STONE. Thank you. One last question about the Florida situation. Is it your feeling that wells produced offshore in the Gulf of Florida—the Gulf of Mexico off Florida—are less likely to produce environmental damage than those off Louisiana because of this increased know-how that you reported in your statement of prevention and containment?

Secretary MORRON. We hope that our regulations and the new technology will be applied everywhere. It is like aviation. We are trying to take advantage of technical research. We also hope that we have profited by the accidents that have occurred in terms of developing new technology. But I would say that we do not have a double standard. We would hope that the technology that is required in Florida will have the same standards and regulations that we apply in Louisiana, Texas—

Senator STONE. But there are to be new wells drilled and you have old wells off Louisiana. My point is you have given us statistics of a minimum of spills. Will it be better or worse?

Secretary MORRON. It will be better, there's no question of that; where you have new wells, you start from scratch. But the regulation and the new technology is retrofitted. I want to make sure we understand that. We don't have a standard for an old well and a standard for a new well. When something new is available and works, it is installed in the old wells, too.

Senator STONE. Thank you. Thank you, Mr. Chairman.

Senator HOLLINGS. Thank you, Mr. Secretary. I note the resistance by the Department, and you as Secretary, to an exploratory drilling program as to where and when to drill. Under the present law and practice, it is a matter of calling for nominations right now, isn't that correct? The Department calls for nominations and depends entirely upon industry as to where and when to drill.

Secretary MORRON. No, we examine the nominations and we have our own input into it. We don't let them make the decision, we make the decision on what the tracts are to offer.

Senator HOLLINGS. Do you examine any other than those nominated? Do you go to any other areas not called for in nominations?

Mr. KLEPPER. Senator Hollings, even in the precall for nominations, the Department has been analyzing for years the basic geological and geophysical information to select the broad targets first; where it calls for nominations then are focused. This is a process that begins several years before the call for nominations.

Senator HOLLINGS. I understand that process but would you go ahead and submit for lease sale, for bids, areas other than the ones called for by industry? In other words, you depend totally upon the industry to decide—

Mr. GASKINS. Senator, there are circumstances, particularly dealing with drainage tracts, that offset known tracts where our geologists and petroleum engineers decide there is a potential reservoir. We put those into sale even when there is no nomination for the tract.

Senator HOLLINGS. Even when there is no nomination, the Department decides to put certain areas—

Mr. GASKINS. We don't make anybody drill a hole there, Senator. We put it in the sale and if no one bids on it, we take it back. If some-

one bids on it, it is theirs and they decide where on that tract and how deep to drill the hole.

Senator HOLLINGS. What you are saying is that you do not depend entirely on industry to make the decision for you. You are making these decisions now and even select areas that industry has not chosen, isn't that correct?

Mr. HUGHES. But not where to drill the holes, Senator.

Senator HOLLINGS. But which ones will be sold, where you will move in—

Mr. HUGHES. Yes, sir, but inside the 5,000-acre tract, there are hundreds of locations to drill given holes and we don't make that decision.

Senator HOLLINGS. Right. But you decide which ones will be explored and drilled right now and you do not depend entirely on industry.

Secretary MORTON. That would be the exception and it would apply primarily to drainage tracts. It would not apply to new structures.

Senator HOLLINGS. I was trying to get to this resistance against making any decisions when you are already doing it.

Secretary MORTON. That's the point, we are not making them in the new structure area but we would make a decision in a drainage tract.

Senator HOLLINGS. In the new structure area, you depend entirely on industry? You would be at the mercy of industry selection.

Secretary MORTON. Because industry has to put the money up. They're the ones that are putting the money up. There is no point in trying to sell something they don't want. That would be one way to assure that the public would not be getting their money's worth. But when you know there is a desire because of the nomination, you can be assured and after we see the bids, we can then be confirmed as to whether the sale was worth the money and when the public was getting the right value.

Senator HOLLINGS. As to the implementation plan, you and I stood by that chart and under that flow chart, it really provides for many of the things we have been attesting to as if it didn't exist. Namely, an implementation plan by the Secretary of Interior, where you would be given 6 months' time in order to promulgate your rules and regulations, submit a general plan as to where and when. Do you find that that is sufficient time?

Secretary MORTON. I have not analyzed it.

Senator HOLLINGS. That is the legislation we are testifying to. You don't find any particular delays in this flow chart that you want to criticize or do you?

Secretary MORTON. I have not studied it but maybe Mr. Klepper or Mr. Gaskins—

Mr. GASKINS. The major delay I see in that flow chart is there is up to a 2-year delay until you apply the geological, geophysical expertise of the oil industry to finding oil and gas, that's the major delay. If I read the chart correctly, Senator, it is not until 1978 that we have a lease sale. It is not until these companies know that they have some property right in the leases that they will start to apply their expertise about where to drill for oil and how deep to drill for oil.

Senator HOLLINGS. That's jumping to the actual sale after the exploratory drilling is done. You commence drilling on October 1, 1976, under that flow chart. Expertise can be used by the Department. One

minute you say you use it and you've got great geological surveys and studies an you even go to the point when industry doesn't give you any nominations, to select areas on your own; and then in the next breath, you don't want to use your own expertise.

Mr. GASKINS. Senator, there is no oil company in the world, if they don't have a claim to the land, that will come in and whisper in our ear about where we should be drilling. If the Department of Interior or some other department bylaws is forced to have a Government exploration program, they will do the best job they can but the problem is you are not using all the expertise available to you.

We are afraid that the best job that a Government bureaucracy with centralized control about where to drill and how deep to drill will not be good enough. As I look at your chart over there, the expertise that has been developed in the petroleum industry in this country and around the world, would not be brought to bear on the prospects that we have to offer until after 1978.

Senator HOLLINGS. We are only proposing to drill, not find reserves everywhere. I understand you can make it an almost impossible problem but the fact remains that all you have to do is sit as we did in December of 1973, right after the Arab embargo, Mr. Secretary, we had Senator Jackson's Energy Review Policy Study Group in a joint session of the House in public markup.

Time and time again, Bill Simon would say as the FEA man, we don't know about that. That is information that is proprietary, we can't tell, we just don't know. We come around to Senator Jackson's bill last year, which passed at least the Senate, the Energy Supply Act which would change somewhat this leasing. This year, you go again to the hearings that they are having.

One in particular where we saw each other was up at Trenton, N.J., for 4 days. The Governors came, the county governments, municipalities, communities and thereafter, the Governors voted 30 to 1 for separation of the exploratory program, not for the Government to go into exploration but a separation where the Government, with private contractors, would oversee it.

The Council on Environmental Policy, Governor Petersen will come this afternoon and he will call for a separation of exploration from actual development. We are trying to move forward in that particular area and bring all the interested parties in to discuss the six pieces of legislation. All we hear this morning is, don't worry about it, we're going to handle it and everything's getting along fine.

We are going to have to move everybody forward together. That is the industry, the Department of Interior, the Congress, administration, and particularly these impacted States. For that we need a fix on what the policy is and when you ask in specifics, other than general conversations, travel, and the general feeling and we are feeling this already, there is nowhere where a Governor or an oil company or anyone else can go up to your Department and see the policy in black and white that they can depend upon.

More than anything else, we need a fixed policy and how else will you do it other than by statute?

Secretary MORRON. We have a set of regulations. We are under the OCS Act. We conduct sales and we write the environmental impact statements. All the drilling rigs available in this country are out doing

their thing. I can't see that we don't have a policy. There are two areas that I think you are deeply concerned about and I share this concern.

One is how do we go into the frontier areas with an adequate protection plan that gives the States an opportunity to do the kind of planning first and then to meet the impact second that onshore facilities would cause. Let's assume in the first place that there is no oil in the Atlantic. There will be no impact. If there is no oil in the Atlantic, we are in an academic exercise. If there is oil in the Atlantic, there will be some 3 years between the time we know there is oil in the Atlantic when there would be any significant impact. We certainly have time to quantify this impact and to take the necessary actions to assist the States in meeting that impact.

I am a little bit concerned that none of these bills that have been suggested really come right down on the goal of how much oil do we think we can get and in what timeframe do we think we can get it? Time is of the essence, I think, in this whole problem. If we are going to delay this and try to change all the rules and give a veto power here or there, we may well go up into the middle eighty's with a production level even less than it is today because of depletions.

Senator HOLLINGS. You speak very loosely there, Mr. Secretary, that's why I asked you about the flow chart. We thought of these things, we were not being nebulous. We are trying to do just what you indicate needs to be done, and that is fix these times. That's why we went to the trouble of reducing proposed legislation in these bills to a flow chart as to when time periods come in and when they cut off.

Secretary MORTON. Where in the chart does it show you that you will get any oil?

Senator HOLLINGS. Well, you never know, just as you said; 3 years but during that 3 years, we have not under this legislation transferred ownership and then nothing can be done. With a 5-year average, in none of the 5, the top of the Interior Department on an involuntary termination, can you remember writing anybody, calling anybody or name a company about an involuntary termination?

Secretary MORTON. I can show you 1,200,000 barrels of oil a day.

Senator HOLLINGS. That was involuntarily terminated? That was not explored?

Secretary MORTON. That is coming into the marketplace and 65 percent of the revenues that generate that oil have gone to the Government. How can you complain about that?

Senator HOLLINGS. Well, sir, I asked you to complain about where we give too much time or too little time in giving you 6 months. Do you want more time for your plan?

Secretary MORTON. I want to be able to put every single person who has any knowledge or any feeling or credibility out there competing for finding this oil. If we fall short of that, we are going to fall short of finding the oil. It is not that easy, it is very, very difficult. If it was that easy, we would not have a ratio of 1 to 20 dry holes.

What would happen to me before this committee if I came up here after the 18th or, say, the Appropriations Committee and I came up here after drilling 20 straight dry holes.

Senator HOLLINGS. The Secretary of State has been doing that in Vietnam for the past 8 years and he's the most popular Secretary.

Secretary MORTON. What happens in Vietnam is a lot of difference than what happens here and our tremendous dependency on gasoline and oil. I just cannot see why we want to suddenly kick the free enterprise system out of America.

Senator HOLLINGS. No, work with the free enterprise system. None of these bills say, Mr. Secretary of the Interior, that you are going to run a Government exploration company. You will oversee the exploration for the Government through the contracts. Big Oil does not have its own exploratory drilling companies. The majority of drilling is done by private, independent contractors out there. If Big Oil, Exxon, and the rest of them use that, why can't the Department of Interior, and do just as the space program did, which was highly successful?

Secretary MORTON. The big company makes the decision on where the drilling company will go and how deep they are going and how much money they can spend.

Senator HOLLINGS. You can't make that decision?

Secretary MORTON. I can make the decision but then you put all the exploration decisions in one person. Shell makes a different decision than Exxon, and Texaco makes a different decision than Gulf, and Hamilton makes a different decision than Mitchell. Each one of them are doing their thing and as a result, we are finding some oil around the country. But if everybody had to drill where one person said, then you are not going to have the benefit of the geological efforts of the oil companies themselves. There would be no point in their having any kind of geological departments at all. They could say, well, we have to drill here because the Secretary of Interior says we have to drill here.

Senator HOLLINGS. You have hesitancy there? The Federal Reserve's far more important decision is the interest rate. Dr. Burns is making those decisions. We've had \$150 billion worth of construction. The highway administrator does not resist it; \$35 billion in space and many others—

Secretary MORTON. You didn't have anybody else bidding to go to the Moon. Nobody wants to go to the Moon but everybody wants to get oil and gas. It's an entirely different thing. I don't see how you can relate going to the Moon or space, which is totally a Government operation, with the development of natural resources.

Senator HOLLINGS. In other words, if you had the space program as President Morton, back in 1960 when President Kennedy announced it, President Morton would have said let's have private enterprise get us into space in the next 10 year. That's what you would have done?

Secretary MORTON. Every space vehicle that ever went out, was the result of the lowest bidder and that's the way it should be. The competitive bidding system was used all through the space effort.

Senator HOLLINGS. That reminds me, I did ask Dr. Coplin how he felt and he said, how would you feel 150 feet in the air about to be blast off with 25,000 moving parts below you—all made by the lowest bidder?

[Laughter.]

Senator HOLLINGS. But it worked. Thank you very much, Mr. Secretary.

[Whereupon, the committee recessed to reconvene at 2 p.m.]

AFTERNOON SESSION

Senator BUMPERS [presiding]. The committees will come to order. This afternoon we are very pleased to have the distinguished Governor from Vermont, Hon. Tom Salmon, who happens to be one of the most able Governors of the national Governors' conference and a very good friend of mine with whom I served on the national Governors' conference. He is the chairman of the national Governors' conference committee on natural resources and environmental management.

I could prejudice myself by saying I have such a high regard for Governor Salmon that I agree with him on almost everything from the front end. So, Tom, you are free to say almost anything you want to and not get cross-examined. But we are pleased that you took the time to come down here and be with us.

STATEMENT OF HON. THOMAS P. SALMON, GOVERNOR, STATE OF VERMONT, CHAIRMAN, COMMITTEE ON NATURAL RESOURCES AND ENVIRONMENTAL MANAGEMENT, NATIONAL GOVERNORS' CONFERENCE, ACCOMPANIED BY EDMOND ROVNER, DIRECTOR OF THE NGC ENERGY PROGRAM, AND TOM DENNIS, ASSISTANT DIRECTOR, NGC ENERGY PROGRAM

Governor SALMON. Thank you for that generous introduction, Senator Bumpers.

First let me introduce to my immediate right, Mr. Edmond Rovner who is energy director of the energy conference and to his right, Tom Dennis, his assistant at NEC.

I come here this afternoon, Senator, wearing a few hats on the issue of Outer Continental Shelf development but I would purport to speak only on behalf of my committee in the national Governors' conference and the conference itself in terms of its adoption of a resolution at its Washington meeting and to speak as Governor of the State of Vermont.

I don't have any particular ax to grind today. We have no oil unless you want to consider spillage from powerboats on Lake Champlain. But I do have a responsibility and appear today in terms of an overview of this situation as it relates to the national Governors' conference for whom I speak with the notion that two experts in this field among the Governors—Governor Bern, of New Jersey, and Governor Brown, of California, who will be with you, as I understand, early next week, to share with you their considerable expertise on this subject.

I have a prepared text, Mr. Chairman. I would purport not to inflict yourself and Senator Jackson and members of the staff with the rigors of this prepared text. I don't care to put anyone into never, never land today during my remarks. I prefer to talk off the cuff and summarize in as succinct a manner as possible the concerns of the Nation's Governors, on the questions of the Outer Continental Shelf, specifically in terms of the four pieces of legislation now pending before these two committees.

We start with the proposition that OCS is a national resource. That is a national resource, not a Federal resource. There is a difference

and we think a rather distinct difference. As exploration and development goes forward, the interests of all Americans, with special emphasis on the interests of those Americans who are cited in contiguous range of these activities, must be reflected in any truly national Outer Continental Shelf exploration and development plan.

Let me say that prompt exploration of the OCS is in the national interest. It is in the public interest as we see it. Let me say, speaking as a Governor from the remote wilderness of the State of Vermont, that the New England Governors are not, I repeat, are not hostile to OCS research, exploration, and development, so long as it moves forward and moves forward apace with fundamental protection of basic public concerns.

The Governors approved the resolution that is with you with a single dissenting vote. The dissent, as I recall, came from a State located east of Vermont. There was near unanimity on this issue. Virtually, everyone agreed on a basic premise, that premise being a very clear and compelling public need for the creation of a dichotomy between the exploration phase and the development phase of Outer Continental Shelf activity.

There does not seem to be any question in our minds that this is necessary for a variety of reasons. To look at the more cosmic aspect of the problem, the apparent situation wherein the projected yield of the Outer Continental Shelf reserves will somehow tend to reduce this country's reliance on imports, one may seriously ask whether or not we have, before an exploration phase is completed, any reasonably accurate idea as to what may be down there in terms of reserves.

This issue, of course, in the view of this Governor and I speak personally to this point, a part of the traumatic and crash course anxiety aspect of the President's national energy plan which is now before us. It implicitly assumes that we are going to be able to trade barrel for barrel oil produced on the Outer Continental Shelf as it relates to reduction of imports.

That appears to this observer to be, among other things, a rather simplistic implication.

We sense that the Congress is in the best position, Mr. Chairman, to make a number of critical decisions that relate to many of these bills. We do not purport to come here today and play God on the issue of how the individual leases that will become an integral part of this program should be configured and tooled and retooled to meet the optimum requirements of the country and the interests of the general public.

You are in a far better position to make these judgments here, although we sense that under the present situation and the present system, there appears to be major oil company dominance in this effort and the independent oil producer seems to have little effective chance under the particular system to effectively bid on these projects.

It seems to me, Mr. Chairman, and it seems to the Nation's Governors that the States have a rather minimal and essentially, indirect relationship to the current process. There is an extremely limited public relationship to the tract nomination process in the early stages. There is, of course, some distinct public input possible during the draft environmental impact statement phase but this, at present, does not

necessarily take the shape of some managerial relationship to what the ultimate decisions may be. We are concerned about this.

We have sensed in the Governors' conference a belief, that I know you share, Senator Bumpers, that, essentially as this national comprehensive energy policy begins to emerge after a badly halting start over the past decade, that essentially the dialog has been between the White House and the Congress of the United States.

We have been, in our utterances, somewhat self-serving in the notion that perhaps we have something to offer to this national debate. Living in the grassroots, working in the grassroots, developing a capacity that I believe fairly intelligently comprehend the problems of our State, the problems of our region as these important initiatives move forward.

Accordingly, as an item related to this general testimony today, we have recently the President and the leadership of the Congress to consider giving the Governors a seat at the head table while the current national energy debate, of which this issue is only a part, continues.

On other items, we feel quite strongly about the question of damages and potential damages that may arise from offshore exploration and drilling. We have reviewed the language in the sections of the several bills, including Senator Jackson's bill, that addresses this subject which appears to be a reasonably good effort. We would exhort the committees and the Congress to take a long hard look at the question of not only the primary ramifications of OCS development and exploration, but also those secondary and tertiary aspects as they relate particularly to the States and particularly to regions of the country.

I think it can be said that one of the problems with us attempting to come down here with a definitive, comprehensive statement on this subject is the problem of the cost-benefit syndrome as it relates to these four pieces of legislation. The President, his advisors, Secretary Morton, have told us what the benefits would be and how high they rate on the range of priorities and the administration's game plan.

But we strongly sense, Mr. Chairman, that not enough has been said or developed about the costs of these programs, both on the west and east coast of our country. The costs, of course, include economic costs, social costs, environmental costs. We can talk in some detail about specifics, but I won't belabor the intelligence of these committees with items that are so self-explanatory.

There is an obvious heavy direct relationship between the onshore presence and relationship to offshore activity that must be compensated for by the individual States unless mechanisms are built into this program to reasonably satisfy the interests of those States.

Now if I were asked in a broad and philosophic sense what kind of presence the Nation's Governors hope to have in this dialogue, I think my dialog would run something along these lines: one, a seat at the head table when many of these critical public policy decisions are made. Two, more than a casual presence in the present structure. A minimal presence at the time of tract nominations and a real, yet indirect presence, as it relates to managerial decisions in the environmental impact component.

Second, an opportunity to make a definitive contribution on the projected economic, social and environmental costs of this program as a national phenomenon and an opportunity to help shape the various

excellent ideas that have been developed in bills introduced by Senator Jackson and others designed to compensate the States and regional communities for definitive losses projected to be suffered as a result of this development.

Thirdly, this Congress made a significant first step in enacting and funding the Coastal Zone Management Planning Act of 1972. In our view, there was insufficient money in the till, particularly as it relates to the crash course basis on which the national administration wants the country and the individual States to come on line.

I would strongly recommend more money for this program as included in bills now pending before these committees. I would also expressly urge more money for the onshore ramifications of OCS development. The shape and configuration that this bill should take has been addressed again in bills before you and I think it inappropriate for me or any governor to attempt to play God in terms of precisely the shape that program should take as long as this ramification is concerned.

Throughout all this, we are especially sensitive in regions like New England with the Georgia's bank, a likely target for significant OCS development in the future about the fact that we are talking about an industry that is very, very substantially important to us, the fishing industry. An industry that has suffered a demonstrable decline in terms of the economy of our region over the past decade. An industry that has been particularly sensitive to the incursions of the Soviet fishing fleet that have had a heyday in catches off the Georgia's bank, which is as fine an area as exists in this country for these purposes. We are very sensitive to this situation.

We are mindful that there is a lawsuit pending, the United States versus the State of Maine. It goes to the questions of rights of the States beyond the 3 mile limit. I am temporarily tied up in the practice of law as you are, Senator Bumpers, and I would not suggest what the result in the Supreme Court might be. But a result favoring the States would appear at first blush to be unlikely.

Accordingly, other initiatives appear indicated to deal with the issues that I suggest.

Let me address myself very briefly to the question of compensation in a somewhat more direct posture.

We have seen a lot of rhetoric about revenue sharing as somehow being welded into this legislation, compensatory to the States. Without attempting to categorize too specifically, I sense that what the States want, the States think they deserve, are payments or reimbursements, particularly on the coast, to the extent of those amounts required in public expenditures to provide for the on-site component of Outer Continental Shelf development on the one hand and a reasonable program—I think you have a reasonable program in the bills before you, to adequately indemnify the victims of any accident of any spill of any profound implication in the course of development.

So Mr. Chairman, we are not talking about general revenue sharing in that context. We are talking about reasonable indemnification for actual cost as measured under a formula that this Congress is perfectly capable of approving after considerable testimony and a reasonable opportunity for indemnification on a strict liability basis for accidents or calamities relating to this activity.

In summary then, I have tried to hit on some of the highlights. I have not touched them all, of the concerns of the Governors in this area. We feel the bills presently pending before you make considerable progress. I personally have some concern over whether or not the voice of the States, or any region of this country, will be fully and effectively heard under the full thrust of these programs as ultimately enacted.

For instance, if more money is put into coastal zone management, and in fact, a region or State in this country on the coast adopts a coastal plan as provided for in existing legislation, I would ask whether or not it is clearly intended that future Federal exploration and development must proceed in consonance with that locally or regionally created local plan.

It would be my hope and I sense the view of the Governors, that it should proceed in consonance.

Finally, I don't come here today, Mr. Chairman, to suggest to this committee who should do the exploration or drilling. We think that is a situation in which both the Governors, the Governors in my region are sharply divided. We think that is a decision that these committees, this Congress, after hearing all of the evidence, is in a far better position to make. We are far more concerned with an adequate public presence. We are far more concerned with adequate public compensation as we move forward as we recommend with reasonable initiatives to explore and then develop our Outer Continental Shelf.

[The prepared statement of Governor Salmon of Vermont follows:]

STATEMENT OF HON. THOMAS P. SALMON, GOVERNOR, STATE OF VERMONT, CHAIRMAN, COMMITTEE ON NATIONAL RESOURCES AND ENVIRONMENTAL MANAGEMENT, NATIONAL GOVERNORS' CONFERENCE

Mr. Chairman and members of the committee; We are grateful for the opportunity to appear before you today. I must point out that I have several different responsibilities. First, and foremost, I am the Governor of Vermont. I am also Chairman of the New England Governors' Conference and State Co-chairman of the New England Regional Commission. In addition, I am privileged to serve as Chairman of the National Governors' Conference Committee on Natural Resources and Environmental Management and it is in this role that I present my testimony to this Committee. I am prepared to answer questions, however, with regard to any of the other responsibilities entrusted to me.

The Nation's Governors met here in Washington in late February. With only a single dissenting vote, we adopted a Policy Position regarding exploration and development of any oil and gas deposits that may exist on the Outer Continental Shelf. Prior to this, there were several meetings of Atlantic Coast Governors and/or other State officials, plus discussions among representatives of coastal Governors from the Atlantic, the Gulf and the Pacific regions. The state people met with each other and met with representatives of the Department of the Interior, as well as with staff of the U.S. Senate Committees on Commerce and Interior.

I recite this history not so much to impress you with the care with which we have worked but rather to assure you that we have canvassed other institutions of government to make sure that we heard all relevant considerations. Our conclusions are not lightly drawn nor do they reflect a narrow view.

Essentially, our solution to the problem is to make maximum use of these resources as quickly as possible but in such manner that their development is compatible with other valuable assets of our nation. We, the Governors, seek a voice in the judgments as to how best to design the work programs and schedules and which parts of the Shelf have so valuable alternative values that fossil fuel development should be reduced, delayed or foregone.

I feel uniquely qualified to present these views not only because I am Chairman of the National Governors' Conference Committee on Natural Resources and

Environmental Management (which has jurisdiction over energy matters), but also because my own State, Vermont, has no coastline (except for Lake Champlain, which has no oil except as accidentally discharged by man from his boat).

I think that it may be appropriate to point out what our resolution on policy does *not* cover. We do not take a position on whether the federal government should, itself, conduct or supervise the exploration. Opinion was so sharply divided (if not in number at least in intensity) that we chose not to address this issue in our Resolution. Second, we do not seek payments to coastal States in excess of amounts needed to indemnify them for the costs of providing public services in support of offshore work (to the extent these costs exceed tax revenues from such activities) and to indemnify any victims of accidents from offshore drilling. This position is exactly consistent with the NGC position on federally owned coal in the Western States where indemnification, not a wind-fall, is the quest.

I know that there has been talk of "revenue sharing" from the royalties on outer continental oil and gas. We do not seek to dedicate the revenue from such activities to enrichment uniquely of coastal States. The concept of revenue sharing, which we regard as an article of faith, simply provides that the federal government should share its general revenue with states and local governments without restrictions on how the recipients will employ these resources for the benefit of their citizenry.

Now, back to what our policy view on OCS does provide.

The most essential principle in the Governors' position is that the *decision* to develop must be made separately and on different standards than the decision to explore. Exploration should be aimed at identifying potential oil and/or gas fields and determining location, volume and the problems which different geological formations may present. It is from such information that rational decisions can be made on whether to develop and the sequence of development where there is more than one candidate for development. The impact of development on the coastal States should be a factor in making the development decisions.

The Governors contend that the costs of production should all be internalized in the price of oil and/or gas. By this, we mean, that onshore services must be financed out of the value of the oil or gas to the extent that the onshore public services are not covered by reasonable taxes on such activities. For example, if material to be used on a rig must be brought to an assembly point on the shore then the problem arises as to possible need to construct or upgrade highways to the assembly point. The cost of such highway work is a burden on the State which will be carried, to some extent, by the gasoline taxes for trucks using that highway and uniform real estate taxes on the assembly site. These are reasonable, measurable, identifiable components of a management plan for development.

I do not mean to suggest that we want each onshore activity measured against taxes on such an activity. Instead, it should be possible to aggregate broader categories of onshore public services and to estimate returns on reasonable, uniform tax systems applied to the commercial activities. To the extent that large new population groups may be brought to a relatively undeveloped area, there are costs to the State and local governments for schools, roads, police and fire services and, possibly, for water and sewers. There is an obvious off-set for sales tax, income tax and user fees. We appreciate the provisions in S. 586 and S. 521 which establish a fund to ameliorate some of the onshore impacts on the States.

The basic purpose of such an exercise is to compel a management program which minimizes public costs and, to the extent that they cannot be prevented, they should not become an added burden on the State or local government. To the extent that anyone has to pay for public services they become more careful about the extent to which they are used. We are not trying to prevent exploitation of offshore sources. We are trying to make certain that they are developed in the most economical manner.

We are impressed with the provision in both S. 426 which authorizes a comprehensive exploratory program to be used as the basis for oil and gas leasing and development plans, and E. 521 which authorizes a survey program. S. 740 authorizes a proposed National Energy Production Board to carry out an exploration program in order to prepare a federal oil and gas production program. We endorse the thrust of these bills calling for coordination in a comprehensive exploration and development program while we do not necessarily endorse the implication in S. 426 and S. 740 that the federal government should conduct or contract for the exploration itself.

We can conceive of leases being awarded to private companies under conditions that would meet our standards. The company would be permitted to explore and would submit the results of its exploration along with its proposed management plan for development. A second permit would then be required before production could be undertaken. The bidder would know from the moment he got his lease that if he discovered a marginal deposit in an area where even a very minor accident would cause great injury and where onshore support services would be expensive, that he would not stand much of a chance of getting a development permit. On the other hand, potential bidders would bear in mind that if they discovered a large deposit in an area where onshore services are readily available, that the prospects for a development permit would be good.

The net effect of adopting an approach such as that contained in the Governors' Resolution might be a reduction in the price that bidders were willing to pay. However, from a comprehensive budget approach, what we would have would be a reduction in cash flow to the federal government, but a concomitant reduction in public expenditure for services to support OCS development. The public, which pays taxes to both the federal and state governments should find itself in a better net position than it might under the present approach to leasing.

The Governors believe that leasing procedures should insure an equitable return to the public for the value of their publicly owned resources which would be extracted.

The Governors are not in a position, as of this moment, to endorse either a large bonus-smaller royalty or a small bonus-larger royalty or profit sharing as a prime tool for assuring a fair return to the public for its oil and gas. We respectfully suggest that broad latitude be given to the Department of the Interior for it to try alternative payment programs in an effort to build up some experience with alternatives. This process should give better information from which to make long term policy.

The decision on when and how to develop OCS resources should have a significant role for the States. S. 426 gives affected Governors the power to request a postponement of the leasing and development for up to three years. S. 521 apparently has the same provision for the Governor of the adjacent State with an added feature that if such postponement is not granted, an aggrieved Governor may appeal to a National Coastal Resources Appeal Board which would be established by that bill.

S. 740 provides for no more than consultation between the proposed National Energy Production Board and affected state and local governments. None of these meets the criteria in our Policy Position. Only S. 521 provides appeal mechanism and there is no representation for the Governors on the proposed new Board. S. 426, in effect, makes the Congress itself an appeal board. We believe that an appeals mechanism should be part of an OCS program and that an affected Governor should have representation on this Board. It may very well be that, for a particular tract, there would be more than one affected Governor because the management plan calls for onshore activities which cover more than one State or because an accident could effect more than one State. In such cases, more than one Governor could sit on an appeals board and their voting power could be reduced by the extent to which their number exceeds one or two.

We believe that it should be made clear that compensation for economic injury as a result of an accident is not limited to those who own the land or aquatic resources which are injured. For example, commercial fishermen do not own the fish before they are caught. Nonetheless, a significant fish kill could deprive them of their livelihood and would also adversely effect seafood processing enterprises. Correspondingly, a hotel might not own the beach for its potential patrons use but the loss of recreational use of the beach could dramatically reduce the hotel's income.

We suggest that a system of compensation be established which does not require the claimant to establish ownership of the natural resource which is damaged by an accident. On the other hand, we are not proposing a program where people remotely or speculatively impacted to a minor degree could have a field day proposing claims. The Congress might want to establish alternative threshold minimums for a claimant alleging economic injury. The threshold could be a minimum dollar amount or a minimum percentage of the income of the business which is hurt. Thus, a hotel which loses two or three patrons for a weekend might suffer a \$100 loss but this might be only two percent of its income for that week. On the other hand, a \$100 loss to a small commercial fisherman might represent more than fifty percent of his income for the period

of injury. These are but two obvious examples of why alternative bases for a claim should be included in a compensation program. We believe that state and local tax revenues lost as a result of an accident should also be compensated.

Finally, we recognize that we are suggesting in Our Resolution a great deal more information than is now available. Accordingly, we support the expansion of funding for the Coastal Zone Management Act which is included in the President's budget. We are also in the process of working out a procedure with the Department of the Interior for a study by a neutral agency of how to identify and appraise the onshore services which may be required for OCS development. Studies done for the Congress and for the Department of the Interior, as well as studies done by Texas and Louisiana, will be of help in producing an acceptable methodology. I am optimistic that such a study can make many of the programs I have described above effective.

I wish to emphasize, once again, that the Coastal States are not hostile to OCS development, nor do they seek to put any impediments in the path of a rational and orderly plan. What the Coastal Governors, supported by the inland Governors, seek is to secure adoption of a reasonable program in the balanced best interests of the American people. We are confident that the Ford Administration and the Congress share that view and we seek an opportunity to work with the Congress and the Administration in devising such a program.

Senator BUMPERS. Governor Salmon, thank you very much for those very cogent remarks. I am sure you know that as far as I personally am concerned, the Governors will sit at the table with the mighty. I'm just now beginning to recover from 4 years of paranoia, of being a Governor and being patronized by the U.S. Congress. I will give you my own unqualified commitment now that you certainly will have all of the input you care to make in the decisionmaking process on this issue which affects your State so vitally. But while I am chairing this afternoon, our distinguished chairman of this full committee is here and I will defer to him to let him proceed with any questions he might have.

Senator JACKSON. Thank you, Mr. Chairman. I want to compliment Governor Salmon for an excellent statement. I will say that I think you have struck the right note of reasonableness in trying to deal with this very difficult problem which is a challenge to the well-being of the States, especially the Coastal States, and at the same time a challenge to our ability to marshal our resources in a time of great economic stress.

I thought your remarks in your prepared statement, on page 4, struck the right note at the bottom of the page in which you take a middle ground. This is an approach that some of us have been thinking about. You say, we can conceive of leases being awarded to private companies under conditions that would meet our standards. The company would be permitted to explore and would submit the results of its exploration along with its proposed management plan for development.

Then you would require, as I understand, a second permit to be issued before production could be undertaken. The bidder would know from the moment he gets his lease, that if he discovered a marginal deposit in an area where even a very minor accident would cause great injury and where onshore support services would be expensive, that he would not stand much of a chance of getting a development permit.

On the other hand, potential bidders would bear in mind that if they discovered a large deposit in an area where onshore services are readily available, that the prospects for a development permit would be good.

I think this strikes the right note. One of the things that is mentioned over and over again and which is the bill, is to authorize the Federal

Government to do exploratory work and identify the areas where there might be a substantial deposit of petroleum. The fact that the Government undertakes to do this, I think, provides that element of credibility which is lacking today.

I think the real fear, and I wanted to ask you this, is that when the bonus sales are held and they purchase the area that is to be developed, the public feels that the private companies will develop that area, even though it is marginal, because they paid for it. Obviously, they are going to insist on getting something out of it. There is a void there that needs to be, I think, properly covered.

It seems to me in your suggested middle ground here, that you are doing that. Is that a fair summary of what you are endeavoring to suggest here to the committee?

Governor SALMON. Yes; it is, Senator, This is a middle ground. Again, viewing the public interest, having in mind that the purchase of a lease under the bonus sale option is currently prevalent, it does not guarantee that there will be immediate exploration or development.

I know these committees will look very closely at the quantum of development in the first 10 million acres that was leased back in 1953, as I recall, by the Department of Interior.

Senator JACKSON. We are going to open hearings next Thursday on my bill to set up a new agency, the National Energy Production Board. We will empower that Board, among other things, Mr. Chairman, to do the initial geophysical work. When we know that we are moving into an area of great sensitivity from the standpoint of risks that could impact adversely on the environment of adjoining States the Government would undertake to drill in those more sensitive areas which are to be considered for development. I think in that way we can get a more objective finding as to what the tradeoffs are.

You have properly, I think, very effectively, Governor, in your statement identified the tradeoffs. I want to compliment you for that decision, that suggestion.

I just had a couple of questions, Mr. Chairman, that I wanted to ask. Would the Governors prefer that the funding come from a trust fund or an appropriation?

Governor SALMON. We did not address that issue in those terms, Senator. Again, having had some experience at the legislative level in my home State, I sense that this is a peculiar decision for the committees to hear all the evidence. I am more interested in the States and regions compensatory relationship to these elements of judgment as I outlined in my earlier testimony as an individual than the choice between a trust fund or an appropriation. There are technical questions here—

Senator JACKSON. You would leave that to the Congress to decide and not express a preference at this time?

Governor SALMON. Yes.

Senator JACKSON. The one area where we really need some help is with reference to the problem of impact aid to the adjoining coastal States. We provided in our last bill that passed the Senate, a \$200 million appropriation, at the rather broad discretion of the Secretary.

I think what we would like from the Governors, Mr. Chairman, would be appropriate guidelines for the criteria that would have to be met in order to be eligible for aid. I come from a coastal State and

I believe I know the mood of people, not just in the coastal State but all States where impact aid is available. If it is too broad, all agencies come in within the State and they all have a tendency to find some basis on which they can qualify. It becomes a very, very difficult program to administer.

I think I can speak for at least some of my colleagues in saying that we want to provide impact aid that is truly justified and aid that will make the State or the political subdivisions whole. But we want to be careful that we don't turn it into revenue sharing propositions, at least I speak for myself.

As you pointed out, Governor, these funds are really held in trust for all 50 States. It may interest you to know that my first month in the Senate, I was involved in a long filibuster to prevent the passage of the so-called Tidelands bill in which the coastal States got from the low water mark out to the 3-mile limit. That included my own State and they did not like it very well in my State. We lost that fight. We did give to the State—even though the Supreme Court ruled that the Federal Government, meaning all 50 States, owned the land—from the low water mark to the 3-mile limit.

In the case of Texas, that's a separate country. They had about three leagues, as did the west coast of Florida. Anyway, I mention this because we have not been niggardly to the coastal States. But the coastal States do have a real problem and we want to be sure that we can properly justify it.

So I would like to have your comments on that and you might include whether the aid is to the States only or to local government as well. Should we leave it to the State government to decide how those funds should be apportioned, or should it go solely to the State government?

Governor SALMON. That's a complex question, Senator, and it includes several questions. Let me try to sort it out, if I may.

First of all, we recognize the desirability of developing a procedure wherein the impact aid considerations, the onshore relationships to OCS development are evaluated, monitored, and determined. We sense the desirability of some kind of neutral effort, neutral initiative to accomplish this objective as opposed to the Federal Government or any constituency thereof performing the task.

We have a dialog started by Mr. Rovner and his people at the National Governors' Conference with the Department of Interior to move precisely toward this kind of objective to develop the neutral capacity to work out this criteria. I hope this might be productive. The subject is enormously complex and I won't attempt to capsule it other than to suggest that obviously the decision at some point in time is for substantial drilling on the Georges bank component of the Outer Continental Shelf, it is likely that one or more States in New England might be targeted as an area that the State government must tool up in preparedness for this fact of life.

Among other things, that could mean or clearly would mean roads, hospital and other health facilities, education facilities, housing facilities, a fundamental capacity to provide for these people. These expenditures to be reasonably measured must be compensated for in terms of any impact statement.

I could embellish upon that thought, but I think I will leave it at that.

Senator JACKSON. We have the problem, too, for the States that are already impacted, the Gulf States primarily and California would be in that category. I just toss this out for your consideration and if it is agreeable with you, we would like to have our staff work with your people and possibly we could work out some draft proposals which we could handle informally without the necessity of trying to formalize all those details.

I am sure you are in touch with your colleagues who chair the Committee on Natural Resources, which is very important. If we could leave it that way, without trying to get into the writing, the language. But if you could have your staff people get on to this, we will have ours get in touch with you.

May I say, too, Governor, we want to hold some hearings and we will probably have one in Boston around May 17 or thereabouts and one in New York, which would be the area that would cover the Baltimore Canyon. It runs from Virginia almost to New York and then you have the Georges bank in the New England area. But we will be in touch with you on that. I just want to take this opportunity of commending and complimenting you for, I think, a most effective, sensible presentation of the problem that has been charged in many directions with a lot of emotion and a tendency for the public to be confused in connection with this whole problem.

I want to say finally, when we talk about the Outer Continental Shelf, we want to remember that over half of it is in Alaska. We have not mentioned Alaska. Alaska has about 50 percent of the total Outer Continental Shelf of the United States. Staff has reminded me, too, that Senator Hollings agrees with the suggestion I have made about the need for criteria in connection with the impacted area problem, especially the tie-in to the Coastal Zone Management Act. Thank you very much, Mr. Chairman.

Senator BUMPERS. I just wanted everybody to know that the seniority system is alive and well.

Senator JACKSON. When you have two Governors and a Senator and a Governor and another Senator, why I recognize my need for a little humility.

Senator BUMPERS. Governor Salmon, I want to ask you, I don't know whether this is really a question. First of all, as a Governor, I think that were I Governor of a coast State. I would have a tendency to prefer the trust fund as opposed to the appropriation, considering all the possibilities of what can happen to appropriation. I know it is not as dependable.

By the same token, the Highway Trust Fund has not been dependable lately, either. But it occurs to me that if a certain amount of the bonuses or royalties from this drilling were set aside in a trust fund, it would certainly give you a little more security in knowing that you were going to get something.

Second, that sort of leads me into a question about the method the Interior Department uses for leasing these coastal zone areas. I am sure you are familiar with their bonus bid procedures where the oil companies offer a bonus on the front end for a certain tract. I have not been here long enough to question that out of hand, but there are some things about it that trouble me.

One, of course, either a group of small producers have to form a consortium or it favors the large oil companies who are the only ones who can put up that kind of money.

It occurred to me that the royalty bidding system might do two things. One, it might allow some smaller producers to bid on these tracts and second, it might address one of the issues you set out on page 4 which my distinguished colleague from Washington has pointed out, that you get into a marginal situation where the results of production are minimal but where if a big bonus bid has been made, there is usually an intense desire to recover as much of that as possible.

Let's take, for example, Georges bank. I consider that one of the most serious areas, principally because of the tremendous fishing there. To me there is a tradeoff that will have to be made, because I don't think, this is just a personal opinion, I think it would be difficult to drill Georges bank without disturbing the fishing to some extent. The extent of it is a question mark, but if you got into that area and found that the oil there was marginal, I think the possibility of disturbing the fishing there, it would be much better to abandon it right at the beginning without pursuing it with a possibility of causing all sorts of environmental havoc.

As it turned out, I did not ask that question, but with bonus bid system being used, I am not at all sure that it is in the best interest of the coastal zone leasing. I hate to repeat a question that Senator Jackson has asked you but have the Governors not addressed the question at all as to what sort of guidelines they would like to see this money given to them under?

Governor SALMON. We did not address that question with any great specificity. I think, as a general proposition as you know, Governor Bumpers, once a Governor, always a Governor, that the Nation's Governors prefer whenever possible, block grants to the States with considerable flexibility in the hands of the Chief Executive to move the money around with minimal Federal guidelines and criteria for the uses that best serves his people. I would take it that philosophy would prevail, when we begin a dialog on this issue. Obviously, you have to sort out the local issues vis-a-vis State government in terms of the onshore impact of this activity and that is a jurisdictional dispute.

It seems to me the fundamental principles should remain constant, they should remain the same. I think it is possible for this Congress, after taking considerable testimony of these committees, to design a fair and equitable proposal, to accomplish these objectives. But there are, as I believe Senator Jackson suggested, a Pandora's box of possibilities, unless you fairly carefully conscript what is in and what is out under the definition of impact related to the Federal program.

I don't want to create the slightest impression that the Governor or any Governor would disfavor the trust fund component as opposed to the appropriations route. We simply have not expressed an opinion on that subject, and you make a fairly compelling argument to move in that direction.

Senator BUMPERS. We would be delighted to hear from you as chairman of this committee of the Governors' Conference at any and all times during the formulation of the passage of this legislation. We welcome your comments. That concludes my questions and I want

to thank you again, Governor Salmon, for taking the time to come down here to be with us.

Governor SALMON. Thank you, Mr. Chairman.

Senator BUMPERS. We have another distinguished former colleague here to testify. Governor Paterson and I served together a couple of years ago. Again, I would have to say he was one of the most respected men in the National Governors' Conference, and Russ, it is a distinct pleasure to have you here this afternoon. Governor Peterson is chairman of the Council on Environmental Quality and we welcome you and appreciate your coming over to give us the benefit of your thinking.

**STATEMENT OF HON. RUSSELL W. PETERSON, CHAIRMAN,
COUNCIL ON ENVIRONMENTAL QUALITY**

Mr. PETERSON. Thank you, Mr. Chairman and Senator Jackson. Thank you for the opportunity to present the views of the Council on Environmental Quality on proposed amendments to the Outer Continental Shelf Lands Act and the Coastal Zone Management Act.

As the President has made clear, accelerated exploration and production of oil and gas from the OCS, subject to the fullest possible environmental protection, is a major component in our effort to achieve energy self-sufficiency. Development of frontier OCS areas offers the possibility of significantly augmenting our domestic oil and gas supply and helping to limit dependence on foreign sources. At the same time, such development can lead to significant environmental impacts in the marine and coastal zone environment, and in all likelihood will result in localized social and economic changes.

For more than 20 years the leasing and development of oil and gas on the OCS have been accomplished under the Outer Continental Shelf Lands Act of 1953. This law has proven to be one of the most flexible of our resource statutes, allowing the Secretary of the Interior to take steps necessary to adjust to the exigencies of changing OCS operating conditions. This was well demonstrated after the 1969 Santa Barbara blowout, when major reforms in operating regulations, designed to reduce the possibility of future spills and applicable to all operations on the OCS, were put into effect.

At the same time it is important to remember that this law was written two decades ago and was based primarily on the experiences in the well understood and friendly confines of the Gulf of Mexico. In many respects the 1953 act was designed to extend the shallow water offshore Louisiana system onto Federal lands. Thus, the fundamental issue is whether this system can function adequately as we seek to explore and produce the new and untested frontiers of the U.S. Outer Continental Shelf.

The bills you have before you today would result in major changes in the law and the management system which have evolved during this 20-year period. And while the system undoubtedly has defects, major alternatives to established procedures should be considered carefully to avoid serious disruptions in the OCS operations.

In April 1974, CEQ concluded a year-long environmental assessment of OCS oil and gas development and submitted its report to the President. This study concluded that leasing in frontier areas must be conducted under carefully controlled conditions. Since that time

the Department of the Interior has taken a number of steps to improve its OCS management program to better accommodate the concerns expressed in that study. And, as the Department has stated today, they have additional measures under active consideration.

I would now like to turn to some of the major issues in the bills you are considering.

From our perspective, the fundamental issues relate to assuring adequate environmental assessment and coordinated planning before decisions are made to open new areas for leasing, and prior to approving the actual plans for oil and gas production operations. Related to these objectives three recent laws have had the effect of amending the OCS Lands Act: The National Environmental Policy Act, the Coastal Zone Management Act, and the Marine Sanctuaries Act. Properly administered, these laws should provide the basis for adequate environmental evaluation and planning.

Changes in the OCS environmental analysis and decisionmaking process to reflect the problems of the frontier areas can, I feel, go a long way toward meeting many of the objectives set out in S. 521, and S. 586. The administration is actively considering these changes. We believe that a procedure which more clearly separates decisions to lease and decisions to develop, with appropriate Senate and local participation at each stage of the process would provide the soundest basis for planning for and dealing with the impacts of OCS development.

As the first step of this process, the Interior Department has released a draft programmatic EIS for the accelerated leasing program which I understand is now being substantially revised. This EIS should discuss the proposed long-term leasing program, including the lease schedule and alternatives to the schedule. This statement should also put forward an assessment of the relative environmental risks of leasing in each of the 17 designated frontier areas, and discuss the method for deciding, after preparation of area impact statement, whether or not to postpone leasing in areas where oil and gas cannot be safely produced and transported. The programmatic EIS should also set forth the environmental assessment procedures to be carried out at various stages of program implementation, and specify procedures for State and local involvement. In addition, this EIS should detail the regulatory, inspection, and enforcement procedures, including manpower levels and training, for supervision of operations under the proposed schedule for frontier areas.

Such a program impact statement, periodically updated, would serve the functions, and more, of the national leasing program in S. 521 and S. 426 and would provide the basis for general public and congressional scrutiny and comment on the proposed accelerated program.

As the second step in this process, prior to the first sale in each frontier area, an impact statement would be prepared to provide the best possible assessment of impacts, including onshore impacts, of opening that area to exploration and development. The area-wide statement would be prepared as early as possible in the leasing process, and would be supplemented, as necessary, to reflect new data and analysis prior to any subsequent sales, in the same geographic area. In connection with each sale, the procedure for environmental assessment of individual tracts in the selection process would be spelled out, and the results made public.

The third step in this process would represent a significant departure from past practice. It is becoming a well-recognized fact that it is virtually impossible to plan adequately for mitigating the impacts of oil and gas development without knowledge of the location and amount of oil and gas, whether recoverable resources in fact exist, and how lessees would propose to develop that resource. The crux of the issue, therefore, is whether or not to go ahead with leasing in the absence of the geological, geophysical, and corporate planning information which would make it possible to undertake such impact assessments.

Both S. 521 and S. 426 before you contemplate an approach based on a greatly expanded Federal Government role in exploration of the OCS. While we recognize the Government's need for better information prior to approving development plans, it is questionable, in my view, whether exploration should be either substantially or exclusively under Government aegis. In recent months the Interior Department has taken important steps to require operators conducting exploratory activities on the OCS to submit all the geological and geophysical data collected under a Government permit for Government use in planning. This requirement has put the Government on an equal data footing with industry in determining the value of individual tracts. It will also give the Government some idea of potential resource producing areas for planning prior to leasing.

But more information is required. The location of reserves in a given area and corporate facts about development of producing structures cannot be ascertained until after a concentrated program of exploratory drilling. Until such time, the location and manner of construction of production platforms, pipelines, and onshore support facilities can be only speculative. It is at this critical juncture—after exploration but prior to approval of production operations—that we propose an expanded level of environmental assessment and planning.

It is my view that it is possible to leave the responsibility for exploration in the private sector yet still achieve the necessary analysis and planning before production operations are approved. This can be done by providing for a clear distinction in the OCS development system between exploration and development. As I see such a system, companies would be given the right to conduct drilling and other exploratory operations, subject to whatever environmental conditions are necessary, with rights to develop only in accordance with a development plan approved subsequent to exploration. During this exploratory phase the operating company will be required to conduct specified environmental studies, dealing, for example, with bottom conditions, fishery resources, and other site-specific data gathering. In addition, a company would be required to report significant discoveries of oil and gas immediately. Any preliminary plans for bringing that oil and gas ashore would be made available to State and local officials at the earliest possible time for use in onshore planning activities.

After the exploratory phase, the company would submit a detailed development plan for the proposed operations. Among other things, the plan would include a full statement of all facilities, both onshore and offshore, likely to be required in order to develop that acreage fully. For each development plan an environmental assessment and, if appropriate, a full environmental impact statement would be pre-

pared and the development plan would not be approved until after full State and local review.

I believe that the Governors of the States and the officials of local communities which would be affected by a development plan should have an opportunity to require modifications in the plan so that it will correspond to their coastal zone management plan and other onshore plans.

However, the Secretary of the Interior should have the authority to require development plans to be modified to protect offshore and onshore environments.

The basic question here is how to implement a workable system. The Interior Department believes that it is possible to accomplish needed reforms under the present OCS Lands Act, and we understand the Interior Department is actively considering this possibility.

I believe that sound environmental management and the fullest possible merging of offshore development with onshore planning can be accomplished within the framework I have outlined above. In reviewing your proposed legislation, I have concluded that such a system would meet most of the major problems you are seeking to resolve. I would be glad to answer any questions you may have or work with you further on this important subject.

Senator JACKSON. Mr. Chairman, I will be very brief, I think that is a very fine statement, Mr. Peterson. I must say that the fundamental problem that has concerned all of us, particularly the abutting States is with the bonus system. Having paid a large price for a tract to be developed, the tendency is, of course, to go all out regardless of the fragile nature that may be involved in that development. The result is that we have trouble. You suggested a course of action here, as I understand it, making a distinction between granting a permit for the exploratory work and then the proper review to determine whether there should be actual development.

It would seem to me that maybe there is another area here where the Geological Survey can identify areas in advance that are fragile and where the Government could do further exploratory and preliminary drilling to see whether or not the area is such that it would warrant full production.

I think the problem, as far as the public is concerned, is on the question of the credibility of the oil companies. Right or wrong, they feel that the oil companies are hellbent to develop regardless. I don't say that that is necessarily a fact, but I think that that is what the public believes. Therein lies the big hassle over drilling in the Outer Continental Shelf. It has reached the point where the public has the idea that you can't have any development on the Outer Continental Shelf, especially if you live in areas adjoining the areas to be developed.

It seems to me that there is a need here for some positive legislation so that assurances can be given to the States that are involved. While the Secretary may have this authority, the facts are that it has not been exercised and the facts are that we have run into a lot of trouble.

I think I understand your position. You feel very strongly that there is this need for a second phase in which a judgment can be made as to whether or not we should go ahead. You would prefer that it be handled on a private basis; is that right?

Mr. PETERSON. That's right.

Senator JACKSON. And some of us have suggested that we can strengthen the credibility factor by giving consideration, especially if we have a vastly expanded program which I see as a necessity without delay if we are going to get the oil that we need. If we start to expand rapidly, I think the Government role is going to be one of substantial input in all of this.

Mr. PETERSON. Mr. Chairman, I would like to emphasize again the critical step in this process is after one finds out whether you have any oil in a given location and what you plan to do about it. That is when you can be specific and when you have to face up to the real practical problems of local communities and States and where that interrelationship between the local government and State government and Federal Government can really come to grips with the real problem.

For example, today none of us knows for sure whether there's any oil or not off the Atlantic coast. When it is speculative like that, it is a little difficult to get people serious about specific planning and it leads to a lot of worry about what problems might arise.

So to get that first step behind us so that we know what we are talking about but then have a built in mechanism to be sure that we need to thoroughly review the impact before a decision is made to develop, as I see it, it is a critical aspect of this.

The administration, of course, under existing legislation, was to try to get that done for the ground rules today. We show you here how we think that can be done within our current jurisdiction with some exceptions.

For example, in the bill, you provide for liability program for oil spills. We are vigorously working on such a piece of legislation which we hope will be submitted that provides for a general program of oil spill liability—not only on OCS operations but dealing with vessels in OCS waters as well.

Secretary Morton had in his testimony that he is also considering a question of how to provide some revenue sharing for local governments in States to help cover the impact of the costs of any development that might result from the discovery of oil in the Outer Continental Shelf. That might call for additional legislation.

Senator JACKSON. I think you have defined the issues very well. As I look at our requirements which involve a vastly stepped-up area in the Outer Continental Shelf, and when you look to the number of available companies that will participate, there are not many.

If we move to a vastly expanded program, especially in Alaska where the bulk of the oil probably is located, no one knows, as you pointed out. Until you do the exploratory work, that it may well be beyond the capability and credibility of the private companies to do the job.

I was amazed at the limited number of companies that have the overall ability to go it alone. One company, I am told—only one company—could handle the entire Outer Continental Shelf operation, the exploratory, the drilling, the development, construction, and so on. The rest go in on a consortium or joint venture basis. Thank you, Mr. Chairman.

I want to express to you, Governor, and to Mr. Train, and Mr. White my appreciation for their testimony.

Senator BUMPERS. Governor Peterson, I would like to echo what Senator Jackson has said. I think your statement is a very good one. I think you agree with the Secretary—if you had your druthers—you would not pass any of these bills and would handle these things administratively; is that the gist of your testimony?

Mr. PETERSON. Yes, it is. With the understanding, Mr. Chairman, that we could cover the basic principles of these bills by the method I described.

Senator BUMPERS. Let me say that I am fairly ambivalent about it. When I was Governor, I used to shudder at some of the things the legislature was doing, that they were ready to go home and leave me saddled with. I have a keen appreciation for both sides of this problem. Let me ask you an unrelated question and that is, it is my understanding that the Council on Environmental Quality is essentially an advisory body to the President. Is that correct?

Mr. PETERSON. That's correct; yes, sir.

Senator BUMPERS. You have no statutory authority such as EPA has, for example?

Mr. PETERSON. No; we have some statutory responsibilities.

Senator BUMPERS. Could you capsule that for me?

Mr. PETERSON. Yes, I would be pleased to. Our job is to advise the President and the Congress, at Congress' request, on those things dealing with the quality of human environment on a global basis—a long range basis—and to recommend a policy to the President, to recommend legislation, to coordinate among the Federal agencies problems dealing with the environment when such coordination appears to be in order, to administer the environmental impact statement process. You may call that an operating assignment, the administration of that.

A very vital program, which I think has gone a long way to change our way of life in our country. It involves and requires that every Federal agency, before undertaking any project that will have any significant impact on the quality of environment, to write a statement defining what they are going to do, what will be the impact, what alternative ways can be carried out, the plusses and minuses of the alternative ways, as the basis of justifying their decision as to what they do.

Then a process for a lining the public and other agencies to get involved in reviewing the draft statement. A final statement is prepared, again is reviewed, and if the public does not like the statement and questions its adequacy, they can take the Agency to court and ask for the operation to be enjoined until they go back and do the job properly.

This is a tremendously important thing and Senator Jackson, the father of this legislation, I am sure that he appreciates what this has done much more than I do. But it is a tremendously important thing and it requires a substantial share of our time.

We have a new assignment which was given to us by Congress at the end of last year that calls for us providing an overview to all Federal energy research and development. It calls for us to hold annual public hearings on the adequacy of the Federal Government's R. & D. from the standpoint of environmental quality and conservation to follow it up with a report to the Congress and to the President and to the head of the Administration of ERDA as to what we think about

the program and how we recommend it be modified. That is a little larger than a capsule, I'm afraid.

Senator BUMPERS. That's all right. I am very pleased to have that information. I am fairly new and I am not sure I understand the overlapping jurisdictions between the Council and EPA. I am trying to get that adjusted in my mind.

Let me ask you this: I don't want to get you at cross-purposes with the administration and certainly not with Interior, but one of the things that you obviously expressed some apprehension about is the matter of exploring some of these areas where apparently there is some question. I frankly thought this morning that the state of the art is determining through seismic operations where oil was located was considerably more sophisticated than it apparently is.

In light of that, I suggested this morning that oil companies would not like to spend \$212 million without personal assurance of them finding something and there were gales of laughter, so I assume they throw \$200 million around with reckless abandon.

Let me ask you this: Would you favor a dual process of developing the Coastal Zone, the Outer Continental Shelf, by something like a joint venture of the United States and some drilling operator with the understanding that if it looks productive or profitable, he would have first shot at it on a certain basis that would be predetermined so that we don't get into expansive exploration and development of something that is going to be marginal and the environmental problems will be more than enough to offset—in other words, the environmental degradation will be too much to warrant proceeding with, and that judgment proceeding be made after some exploration?

Mr. PETERSON. Mr. Chairman, we have made a proposal which the Interior Department thinks they may be able to carry out under the present legislation. If we couldn't carry it out under the present legislation, it would be something in our opinion that would merit consideration. That is a two-step process whereby a permit is given for a company or group of companies to explore oil in a large tract, say 50,000 acres instead of the 570-something acres spelled out in the OCS Act of 1953 and put that under a tight timetable. Tell them that permit will only last for 5 years and after 3 years, cut the acreage in half to put a real incentive to find out if there is oil in that large area. Then if they discover oil in that area, then they cannot proceed with the development until they have developed a detail plan for how they will do it and what it will mean onshore as well as on the OCS.

Then they would have to get a license before they can go ahead with the next step. We think that separating those two things that way would permit us to markedly protect the environment, to markedly cope with the onshore problems which are of such great concern, and understandably so, by local governments and State governments and also to figure out what extent the Federal Government ought to be helping local governments finance some of these things which result from the OCS exploration and development. That is a marked change from what is being done today and as I said, it is possible that that can be done under the existing legislation.

We are currently trying to resolve that. But that is why I say that we agree pretty much in principle with some of the things trying to be

accomplished by the bills before us today. The question is, can they also be done under existing legislation?

Senator BUMPERS. That is a very good statement. The one thing that troubles me is, I have a tendency to want to legislate this for two reasons. One, to be sure that it is done and two, to avoid the possibility of litigation and possibly attempting to design a program like that under the present law could run into some legal snags.

Whereas if Congress acted on it now to definitively set out this option, if not a mandate, to the Secretary, then, of course, I think we could go a long way towards eliminating litigation. I would like to compliment you for your objectivity on this point because sometimes we seem to be partisan here and it is refreshing to find someone who is looking at it very objectively.

I just want to make sure that it is developed in an orderly manner and I think our objectives are the same. That concludes my questioning, Russ, and I want to thank you very much for coming down.

Mr. PETERSON. Thank you, Mr. Chairman.

Senator BUMPERS. It's nice to see you.

Mr. PETERSON. Thank you.

Senator BUMPERS. We have two additional witnesses this afternoon. Mr. Robert M. White, Administrator of the National Oceanic and Atmospheric Administration and Mr. Russell Train, Administrator for EPA. It might be well for both of you to come up and take testimony in sequence and then get at the questioning.

Gentlemen, I want to thank you on behalf of the subcommittee for being with us this afternoon. I will allow you to proceed—Mr. Train, would you go first please?

STATEMENT OF HON. RUSSELL E. TRAIN, ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY

Mr. TRAIN. Senator, we just flipped a coin and I either won or lost, depending on how you look at it and I am going to go first with your permission.

Mr. Chairman, I welcome the opportunity to comment on ocean policy issues as they relate to oil and gas development on the Outer Continental Shelf.

It is appropriate that Congress is focusing on this development. The decision to increase OCS leasing and the extraction of non-renewable resources as well as the means by which that development is managed may well be one of the most critical energy decisions of the decade. As you are aware, our needs for new and more abundant supplies of energy resources are not inseparable from our needs to preserve our renewable ocean resources.

We at EPA acknowledge and endorse the necessity to increase domestic energy supplies and on balance we are optimistic that development on the OCS can take place in an environmentally acceptable manner. Those areas where experience has demonstrated that safe operations are possible and where biological sensitivity is lowest should be the first areas to be developed.

We are pleased that the Council on Environmental Quality in their report has indicated that the benefits of potential oil and gas development must always be balanced against the environmental risk.

Where a balance is found to be favorable, exploration can then proceed with caution and a commitment to prevent damage. To achieve this balance, it is imperative that all promising OCS areas be analyzed and ranked both for resource potential and for environmental sensitivity and natural hazards. Only after careful analyses of both the resource potential and the attendant environmental risks should we proceed to explore a given area.

The need to regulate the varying uses of natural resources on the Outer Continental Shelf requires the full implementation and strict enforcement of the requirements and authorities available under existing Federal law. Under these authorities—Outer Continental Shelf Lands Act, National Environmental Policy Act, Federal Water Pollution Control Act, Marine Protection, Research and Sanctuaries Act, and Coastal Zone Management Act—EPA and other Federal agencies are not without experience in dealing with the problems created by OCS oil and gas development. The National Environmental Policy Act has been employed to open up OCS policymaking to much greater scrutiny and much broader public participation. We believe that even greater cooperation and effective involvement among concerned Federal agencies, the States, and other concerned organizations can be achieved. The environmental impact statement process can contribute significantly to that achievement.

The environmental issues presently involved with exploratory drilling differ greatly from those of subsequent development. Under present OCS management practice, the two processes—exploration and resource production—tend to be tied together in the sense that the review of development plans subsequent to exploration but before development has not sufficiently addressed onshore impacts nor involved State and local participation to the degree that I believe is desirable. As a result, the exploration program can be delayed due to unresolved development issues. I would also add that under this practice there is some risk that subsequent development will proceed without adequate evaluation of the environmental consequences of development options. We at EPA believe that the present practice could be improved by a process of development plan review which explicitly addresses the full economic, social, and environmental impact including the onshore impacts of the proposed development, with participation by Federal agencies with interest and expertise and by affected States and communities. These development plans should, of course, be subjected to environmental assessment and, when appropriate, to preparation of environmental impact statements. It is our understanding that the Department of the Interior believes that the OCS Lands Act provides authority for this kind of improvement in present OCS management practice.

The approach I am recommending would require preparation of an BIS before specific lease tracts are selected. This initial statement would focus on marine biological aspects, especially in coastal and estuarine areas which are the richest and most vulnerable areas, and would screen or prioritize tracts that could be explored with low environmental risk. A second environmental assessment would be written on a specific development plan or plans. This second review

process would allow fuller consideration of pipeline corridors, onshore development, and related effects than is now the usual practice.

One of the principal concerns we at EPA share with other Federal agencies and the States relates to the potential onshore and coastal zone impacts that would arise with expanded OCS development. Comprehensive energy planning offshore must occur within a framework which recognizes and emphasizes the need for onshore planning. Insofar as onshore impacts are concerned, EPA believes that the present preleasing procedures do not provide either adequate or timely acquisition of the necessary information for State and local planning. We do not believe that any preleasing procedures could provide the necessary information. More meaningful evaluation by State and local governments of development options based upon postexploration knowledge is essential, in our opinion.

I believe that many Federal agencies could contribute significant information, data, and analysis for a complete environmental assessment. Under the leadership of one agency and with maximum coordination with the affected States a thorough analysis of the social, economic, and environmental implications of both OCS exploration and development can be achieved.

In that regard, consideration should be given to an approach whereby necessary Federal and State licenses and permits could be dealt with in a streamlined and coordinated way.

The Federal Government must accept the responsibility for informing State and local governments about coastal facilities and services which are likely to be needed in connection with OCS activities well in advance of development. The growing pressures on the coastal States from many onshore and offshore activities, coupled with a realization that these developments will mutually affect each other, have produced widespread concern.

Onshore development may occur in rural areas where relatively little growth could be expected in the absence of offshore energy development. The location of OCS development activities will tend to induce new industries, particularly refineries and petrochemical complexes in the immediate area serving these offshore rigs.

The creation of new petroleum-related industries will also induce associated commercial and economic activities. An overall increase in economic development will cause population concentration and needs for new housing and added public services, such as sewage treatment, transportation schools, electric power, and recreational facilities. Each of these activities will in turn result in a range of environmental impacts beyond what would normally be expected without OCS development. The impacts include demands for land and water supply, increased probabilities of air and water pollution, and a burden on public services.

Onshore impacts, especially in rural areas could become a major burden on energy development. The creation of strong coastal zone management agencies within the affected States will insure that the interests of the States and their citizens will be appropriately represented. Critical to the effective use of coastal zone programs, however, is the necessary coordination between the Federal agencies holding responsibility for offshore development and State planning agencies.

To insure timely and responsible State efforts States must receive at the earliest possible time the following types of information :

1. Best and latest estimates of the volume of oil or gas to be extracted and the latest schedule for this development;
2. Date and plans for OCS development, including estimates of the number and types of facilities needed for production, refining, and transportation; and
3. The likely effect of development on air and water quality.

Given this framework of data and information, the increased effectiveness of coastal zone management can do much to assure that offshore development of oil and gas resources occurs within the limits of environmental acceptability.

EPA has important environmental regulatory responsibilities under existing law that can provide significant protection on the OCS and adjacent shore areas.

Under the Federal Water Pollution Control Act and the Marine Protection, Research, and Sanctuaries Act, a Federal program of marine pollution abatement and control was established. EPA sets ocean discharge criteria which are then used to evaluate permit applications for the dumping or discharge of waste material into the waters of the territorial sea, the contiguous zone, and the oceans.

One of our continuing concerns is the responsibility under the Federal Water Pollution Control Act for the control of oil and hazardous substances spills. We are charged with responsibilities relating to oil spill incidents and marine disasters creating potential pollution hazards, which occur upon the navigable waters of the United States, adjoining shorelines and the waters of the contiguous zone. The national oil and hazardous substances contingency plan prepared pursuant to that section delineates procedures, techniques, and responsibilities of the various Federal, State, and local agencies. With respect to the Outer Continental Shelf, the Department of the Interior, U.S. Geological Survey, is the lead agency and provides expertise for oil pollution control programs connected with exploration, drilling, and production operations. In the event of a shelf oil spill episode, Interior, the Coast Guard, and EPA act pursuant to the national contingency plan in a predesignated and coordinated fashion to control, contain, and mitigate the adverse effects of a spill on the ocean and shoreside environments.

The potential danger of environmental damage is closely associated with increased production activity on the OCS and serves to underscore the importance of safety and environmental protection programs. EPA is consulting with Interior in their efforts to improve safety and environmental protection. In addition, it further emphasizes the need for better information and more research to determine the overall environmental risks attendant on development.

EPA believes that it is impossible to evaluate adequately the environmental consequences of OCS development without the compilation and analysis of baseline biological and physical data. Baseline studies in frontier areas are essential to prioritize biologically important areas.

While there is no doubt that petroleum products are toxic, research should be continued to determine the persistence and full degree of toxicity of petroleum compounds. We also need to understand the

recovery mechanisms of specific ecosystems and their components which have suffered catastrophic damage. The studies should focus on the effects of both one-time spills, and of continuous low-volume discharges. EPA has a significant role with respect to such activities and has assigned a high priority to this research.

Recognizing the limitation of equipment for drilling and the amount of baseline and biological research which is needed, we at EPA believe that exploration can proceed as soon as the environmental baselines can be collected and evaluated. Then too, coastal jurisdictions will be better able to proceed with their planning functions based on some knowledge of the volume of activity which will be taking place off their shores.

In summary, I believe that the significance of the studies needed, the potential problems presented, and the need for a sound technical basis necessitate a large degree of coordination and cooperation among all levels of government.

The end product of organization, planning, and study will be an improvement in the quality and scope of management of both renewable and nonrenewable resources. Such data will also enable us to make the necessary environmental assessments. I think that the comprehensive environmental analysis which I have discussed will aid us in the coordinated evaluation of environmental concerns at both the exploration and development stages of the leasing process. It will also provide for better exchange and coordination of information between Federal agencies and the States, and guarantee our Nation's optimal use of both our environmental and energy resources.

I appreciate the opportunity today to share with you some of my thoughts and concerns on oil and gas development on the OCS.

Senator BUMPERS. Mr. Train, I want to compliment you on what I think is a very fine statement. I assume you were here when Governor Peterson testified a moment ago. I see what I think are strong similarities between your two statements. Certainly your concerns are obviously the same.

One of the things that troubles me a little bit about this is that yours and Mr. Peterson's responsibilities are quite different from Secretary Morton. I suppose if you would ask the Secretary if his concerns were same as yours, I am sure he would say yes. But the procedures that you and Governor Peterson set out this afternoon, we did not get any indication from the Secretary this morning that he intended to follow the procedures that EPA or the Council on Environmental Quality proposed. I am wondering if you know what they do intend to do in the matter of procedures of leasing these lands?

Mr. TRAIN. Secretary Morton obviously would have to inform the committee, Senator, as to what—as to the policy he expects to follow. We have had numerous discussions at the staff level with Interior on this particular issue. I am sure CEQ has as well. It has been our feeling that they are moving in this direction and it has been our hope that this is how they are going to come out. But again, I can't speak for the Department in that regard.

Senator BUMPERS. I don't want this committee or the Congress to impede unnecessarily the development of offshore production. But you hit a nerve when you said that oil is not a renewable resource but the fish and the water and everything else there is a renewable resource

and to destroy a renewable resource in order to get a non-renewable resource, to me would be unforgiveable.

I don't think we have to make that choice but I think we should proceed with some caution here. I though Governor Peterson's proposals and the two States' process had a great deal of merit and I think that would go a long way toward alleviating or eliminating the possibility of that happening.

Mr. TRAIN. I think that is correct, sir, and that is the main thrust of my statement. In our view the need is to move with caution and deliberation taking the necessary steps to develop the fullest range of information in order to be able to do the right kind of job and then to get on with that job.

There are necessary commitments to the development of baseline data and environmental and related resource analysis information which must be made. I hope I have conveyed the thought that we are in no way opposed in principle to OCS development. In fact, I strongly recognize the need to utilize these resources. Our only concern is that this be done without a sense of haste or panic because it is not necessary. If it were necessary, that might be a different kind of decision to make, but it clearly is not. We have the time to do a decent job and to protect the environment and develop these resources at the same time.

Senator BUMPERS. You know the points that you made about the renewability or non-renewability of resources goes back to the opening statement of Governor Salmon and that is that this is a national resource, it is not a Federal resource, it is not something that is to be determined for the benefit of the Congress or the bureaucrats in Washington. It is something which is extremely important to this Nation and that's the way I want to treat it. I want to thank you very much for coming over and I want to especially tell you that I am gratified by your attitude and by your comments.

Mr. TRAIN. If I might add one thought which is always risky when you have been given an opportunity—

Senator BUMPERS. You can't take yes for an answer.

Mr. TRAIN. I have a note or two I wanted to discuss with the committee. Since I have not too many opportunities to testify on oil development and spill matters, I would like to make the point that we have developed in EPA a very strong and very effective rapid response capability with regard to oil spills. We have also developed a close working relationship with the Coast Guard in this regard.

For the record, I would like to bring that to the committee's attention. The formal name of the office is the Division of Oil and Special Materials Control. The director is Mr. Kenneth Biglane who is present in the room. We have a quick response team here in Washington with 21 people. We have on the average about five technical people in the field in each one of our regional headquarters.

For example, we have sent people to the major oil spill in the Singapore Strait to learn as much as we could from that experience. We have visited the major spill in the Straits of Magellan. We do keep in close touch with these major occurrences on a worldwide basis. I think we have very high competence in the agency in this regard.

If I may throw a bouquet to the Coast Guard, I think that the Coast Guard in its ability to respond and assist in these matters worldwide

has brought a technical contribution by the United States to bear which has been of great assistance to the other countries. I think at least of the four or five supertanker major disasters of the last year or less than a year, three out of four of those, the Coast Guard was able to arrive on the scene—in the Straits of Magellan and off Singapore, off St. Croix—and through their rapid pumpout ability which they fly into the scene, offload these tankers, save the ships and save an enormous amount of oil from being spilled into the marine environment. This is something that does bear noting. It is a very splendid accomplishment and contribution.

Senator BUMPERS. I appreciate that and I will sleep a little better tonight since you have told me about it. Thank you very much.

Mr. TRAIN. Thank you, Senator.

Senator BUMPERS. Mr. White.

STATEMENT OF HON. ROBERT M. WHITE, ADMINISTRATOR, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, DEPARTMENT OF COMMERCE, ACCOMPANIED BY ROBERT KNECHT, ASSISTANT ADMINISTRATOR FOR COASTAL ZONE MANAGEMENT, NOAA, AND WILLIAM C. BREWER, GENERAL COUNSEL, NOAA

Mr. WHITE. Mr. Chairman, before I begin my statement, let me introduce the people at the table here with me. To my left I have Mr. Robert Knecht, the Assistant Administrator for Coastal Zone Management in our organization. To his left, Mr. William C. Brewer, our general counsel.

It is a pleasure to appear here before this meeting of the Interior Committee and the national ocean policy study to discuss NOAA's role with respect to the legislation now being considered by the committee.

In view of the fact that the Secretary of Interior has stated the administration's position on the bills before you today, I would like to review some of the progress being made on implementation of the coastal zone management program as well as discuss several of NOAA's other activities which are closely related to the OCS issue.

All of the legislative proposals in S. 81, S. 130, S. 426, S. 470, S. 521, S. 586, S. 825, and 826 reflect the reality that the proposed oil and gas development in the frontier areas of the OCS will confront us with a quantum change in circumstances. The Nation's principal offshore oil and gas development, in the Gulf of Mexico, has grown gradually over a period of 20 years. It grew in an area with a history of involvement with petroleum development. Growth took place gradually, moving a technology developed on land into the ocean.

We are now seeking to develop petroleum resources off the coasts of areas which are largely unfamiliar with such development and in which environmental conditions and the social and economic impacts are likely to be different. Not surprisingly, there is concern and some opposition. The legislation being considered here deserves the most careful appraisal.

We believe the time is overdue for the States and the Federal Government to recognize and accommodate to their legitimate mutual

needs. NOAA recognizes and supports the urgent national requirement for the development of new domestic sources of petroleum. We are convinced that the States recognize their obligation to work with the Federal Government in the satisfaction of these national interests. On the other hand, NOAA also recognizes the legitimacy of the deep concerns of the States and other groups for the environmental and onshore impacts of unplanned development and believes the Federal Government has a responsibility to alleviate these concerns.

In NOAA's assessment, the two views are not incompatible. Bringing about this compatibility can be greatly advanced by the rapid and full implementation of the Coastal Zone Management Act of 1972. This act places in the hands of the States the responsibility for comprehensive coastal zone planning and management in a balanced manner that recognizes economic as well as environmental, and national as well as local, needs.

In the implementation of the Coastal Zone Management Act, we have had extensive opportunity to work with the coastal States. The following views have emerged:

First. The States seek early information on all aspects of the offshore leasing program and suitable participation in all the steps of the decisionmaking process.

Second. The States generally wish to have the OCS development take place in the context of a comprehensive coastal zone management program and are concerned that irreversible commitment to development will take place offshore before such plans are ready.

Third. The States want and need more information about the specifics of anticipated onshore impacts. They are concerned about economic, social, and environmental effects of onshore industrial support and public services that will be required.

Fourth. The States want financial support to offset the costs of services and facilities needed to support a rapid industrial buildup once an offshore field is discovered. They feel that while the benefits of OCS production are enjoyed by all citizens in all parts of the country, the disadvantages are localized and therefore their elimination is a responsibility of all.

The Governor of Vermont this afternoon reflected many of the same views.

We believe that the administration's program, as discussed by Secretary Morton, goes a long way toward meeting these needs.

The Coastal Zone Management Act signed into law in 1972, as a voluntary measure, has been enthusiastically received as the right institutional vehicle at the right time. All 30 of the eligible States and 2 territories are now taking part. The first grants to the States to prepare coastal management plans were made about 1 year ago. For the current year, \$12 million has been appropriated to carry out the provisions of the act. In addition, the President is seeking \$3 million in supplemental funds this fiscal year to provide additional assistance to coastal States as they prepare to deal with the OCS oil and gas issues. In the short time of its existence we already have several States on the point of submitting coastal zone management plans to the Department for final approval and implementation. We hope to have at least one approved by the end of the fiscal year. While many difficulties lie ahead, we are very encouraged with the progress to date and are con-

fidant that the intent of Congress to bring about more rational use of our precious coastal lands and waters will in fact be met.

NOAA's interest in Outer Continental Shelf development, the protection of the environment, and the conservation of our ocean resources goes far beyond our responsibilities under the Coastal Zone Management Act. We are the ocean fisheries agency of this Government and, as such, have responsibility to insure that these resources are conserved through protection of their habitats. As the ocean surveying agency, we are involved in the production of the maps and charts, definition of the tides and currents, and other oceanographic features whose understanding is important to environmentally sound development of our offshore oil and gas resources. As a part of the sea-grant program, a number of the Nation's foremost colleges and universities are producing scientific and technical results on coastal and marine problems that are directly relevant to the issues being discussed here today. Recent sea-grant work has focused on deepwater ports and their environmental implications, the onshore impacts of offshore oil activity, and a host of other coastal zone problems.

We have responsibility for the Nation's weather and ocean monitoring activities and, hence, have been deeply involved in the provision of environmental information and the prediction of those natural disasters that can vitally affect offshore operations. We are responsible for maintenance of the National Ocean Data Center, as well as the National Climatic Center, the national depositories of the data on environmental conditions which are crucial to design of facilities and structures, as well as the safe and environmentally sound operation on ourselves. As the ocean agency we maintain the country's foremost capability in ships and aircraft, earth orbiting satellites, research laboratories and facilities, as well as the scientific expertise enabling us to assist in assessing the whole range of environmental consequences that might result from oil and gas development.

In this connection we are working closely with the Geological Survey and Bureau of Land Management of the Department of Interior in carrying out the environmental assessments for those frontier areas which are presently contemplated for lease sales.

Thank you for the opportunity of appearing before you today. I would be happy to answer any questions that the committee might have.

Senator BUMPERS. Mr. White, has your agency considered getting with the Governors and discussing with them or attempting to work out with them some agreement that might be a suitable arrangement between them and the Department of the Interior? If not, do you think that would be a viable thing to attempt?

Mr. WHITE. We have worked very closely with all the offices of the coastal States under the Coastal Zone Management Act and a focal point has been established in the office of each Governor. They have been contacted and work with us in the preparation for implementation of the Coastal Zone Management Act. We have held annual conferences with representatives of the Governors' offices to look at these problems and the act does call for the Coastal Zone Management Office and the Department of Commerce to play a mediation role between the Federal Government and the States in the case of disputes with regards to the coastal zone and we intend to carry out that charter, sir.

Senator BUMPERS. Your agency is not charged with any of the responsibility for inland waters, is it?

Mr. WHITE. We have responsibility in inland waters but they are quite different than they are for the oceans. We are responsible for the river and flood forecasting activities and, in that sense, responsible for inland waters.

Senator BUMPERS. What is the wildlife fisheries—what's the name of it?

Mr. WHITE. With respect to the fisheries, Mr. Chairman, when the National Oceanic and Atmospheric Administration was formed, inland fisheries and their responsibilities remained with the Fish and Wildlife Service of the Department of Interior and the ocean fisheries came across to this new organization.

Senator BUMPERS. That brings me to the question as to whether or not EPA or the Council on Environmental Quality or any of them have any expertise on their own in determining the impact on fishing off the coastal zone and if they do not, do they call on you or is there a specific procedure for coordinating your knowledge with theirs?

Mr. WHITE. As Governor Peterson indicated, the Council on Environmental Quality does not have operating capabilities. That does not mean that it does not have expertise in many of the areas for which it is responsible for coordinating purposes. In that sense, it has expertise. The Environmental Protection Agency is quite different. It has expertise facilities, laboratories, scientists and we work very closely with the Environmental Protection Agency in a whole range of marine and atmospheric matters.

A good example of this would be the present project that BPA and NOAA are jointly carrying out within the New York BYTE area. These are the waters off New Jersey, New York, and Delaware. We are looking at the environmental impacts of ocean dumping with a view to try to determine what areas of that part of the ocean would be the least harmful environmentally as dump sites. This is being done jointly with the Environmental Protection Agency.

We both get into the questions of fisheries. We are very much concerned with the quality of the habitat for fisheries. The Environmental Protection Agency is, of course, concerned with water quality itself, whether it pertains to impact on fisheries or any other kinds of impacts.

We attempt to work closely; I meet with Mr. Train frequently.

Senator BUMPERS. The reason I raised that question, it has been stated here and it has been my understanding for a long time that just about the finest fishing waters that border this country are right in the Georgia's bank area which is proposed to be drilled. I am concerned what, if any, consultation you have had with Interior or EPA about that?

Mr. WHITE. We have close consultation with them, not only with respect to that fishing area but all the other fishing areas along our coast. In the preparation of environmental impact statements, we provide support to the Department of Interior with respect to the impact of actions that that department may take upon the living resources of the ocean. We provide, therefore, the support via the expertise we have in ocean fisheries to them as they prepare their environmental impact statements.

Senator BUMPERS. What effect—we have been drilling in the gulf now for 20 years. What effect has that drilling down there had on marine life?

Mr. WHITE. I think the effects have been mixed. For example, some of the estuarine spawning habitat areas have been hurt. On the other hand, it also seems to be true that drilling platforms—

Senator BUMPERS. You mean it's really true the fish do love to swim around those piers?

Mr. WHITE. If we were to judge by the number of sports anglers who congregate around those structures, why yes, they do. There is a concentration of fish around that kind of a structure or almost any structure one might put in the ocean because it generates an ecosystem of its own. Then you get to the question of spills and what happens as the result of spills. It is quite clear that you have a significant impact when you have a massive spill on any kind of living thing. It appears that the effects of oil spills pass after awhile. We believe the most serious kind of problem that people have to look at, and we don't think it has been looked at thoroughly enough, are the longer term effects of low levels of concentrations of petroleum products on living things. Research on this is going on in a number of laboratories.

Senator BUMPERS. Senator Long says since the shrimp have been eating oil, they are getting bigger down there and maybe slicker. Mr. White, I don't have any additional questions to ask of you.

I want to thank you for coming and I want to apologize. Usually at this time of day, the hearings, it gets boring sitting around waiting your turn. I always feel uncomfortable about that and I want to apologize. You have had to wait a good long while this afternoon to present your testimony. I think it has been extremely enlightening and helpful to me.

Senator Hollings, for the record, is submitting some questions in writing to you and those will be handed to you and will be made a part of the record for you to reply directly to him on. There may be others, one or two other committee members who might wish to submit some questions to you in writing. The questions and responses are included in appendix II. Thank you again for coming this afternoon and the committees stand adjourned.

[Whereupon, at 4:10 p.m. the hearing was adjourned subject to the call of the Chair.]

OCS LANDS ACT AMENDMENTS AND COASTAL ZONE MANAGEMENT ACT AMENDMENTS

MONDAY, MARCH 17, 1975

U.S. SENATE,
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
AND THE COMMITTEE ON COMMERCE,
Washington, D.C.

The committees met, pursuant to notice at 10 a.m. in room 3110, Dirksen Office Building, Hon. Lee Metcalf presiding.

Present: Senators Metcalf, Bartlett, and Weicker.

Also present for Interior Committee: Grenville Garside, special counsel and staff director; Daniel A. Dreyfus, deputy staff director for legislation; William J. Van Ness, chief counsel; James Barnes and Richard Grundy, professional staff for the majority; Harrison Loesch, minority counsel; and David P. Stang, deputy director for the minority; for Commerce Committee: John Hussey, director, NOPS; and Pamela Baldwin, professional staff member.

Senator METCALF. The committee will be in order.

OPENING STATEMENT OF HON. LEE METCALF, A U.S. SENATOR FROM THE STATE OF MONTANA

This is the second day of the joint hearings of the Committee on Interior and Insular Affairs and the Committee on Commerce on pending bills dealing with Outer Continental Shelf oil and gas development and its impact on the coastal zone. Last week, Secretary of the Interior Morton and other representatives of the executive branch agencies concerned with OCS oil and gas development and coastal zone management testified as did Governor Salmon of Vermont on behalf of the National Governors Conference. This morning we will receive testimony from representatives of the Governors of three coastal States, New Jersey, Alaska, and Rhode Island. We will also hear from the chairman of the Coastal States Organization and the commandant of the Coast Guard.

Our first witness this morning is Congressman John Murphy of New York who represents, among other areas, Staten Island, which may be significantly impacted by OCS development.

We welcome you all here this morning.

Even the State of Rhode Island has a longer coastline than the State of Montana, so you are talking to me as experts. I am just here to listen to you.

I am delighted to have Congressman Murphy here to represent the State of New York. I know you have a prepared statement. I have been pleased to have been able to work with the Merchant Marine and Fisheries Subcommittee on Oceanography over the years. My attention has been called to the fact that you have taken over. I look forward to the continued fine relationship we have with that committee.

**STATEMENT OF HON. JOHN M. MURPHY, A U.S. REPRESENTATIVE
FROM THE STATE OF NEW YORK, AND CHAIRMAN OF THE HOUSE
OCEANOGRAPHY SUBCOMMITTEE ON OUTER CONTINENTAL
SHELF LEGISLATION**

Mr. MURPHY. I certainly appreciate the invitation and opportunity to be here, particularly on such an auspicious day. The majority of the New York delegation are marching past St. Patrick's Cathedral in New York, probably getting quite wet.

Senator METCALF. It is certainly a sacrifice for a Murphy to be here testifying.

Mr. MURPHY. I think I will do some catching up later in the day.

Mr. Chairman, as you know, much of the legislation being considered here today will also be before the committee which I chair. In view of the urgency and magnitude of the decisions we in Congress are all faced with concerning the interrelated problems of energy, shortages, the environment, oil, gas, our fisheries, our coastlines, among others, but most or all the best interests of the United States, I propose that we in the Senate and House work closely together—work quickly together—work as we always have in times of national crisis, to resolve this complexity for now and for the future.

My staff and I spent last week attending meetings in various parts of the country with State and Federal and private officials responsible for the resolution of the items on your agenda today.

Some of the attitudes of the more strident advocates disturbed me. There were those to whom the old chestnut applied, "The barn is burning down and they want us to take fire prevention lessons."

But I repeat today what I told a meeting of the National Coastal Zone Management Advisory Committee after several hours of sectional and philosophical bickering—I said I think we should remember that we are all American citizens first and environmentalists second—we have denied ourselves coal, nuclear power, and have almost destroyed our utilities—now we should get on with the job of retrieving the energy we need from the Outer Continental Shelf because not to do so could threaten our national survival, and certainly our national economy.

And we can—and must—do this in an environmentally sound manner in accordance with the coastal zone management plans of the coastal States as they are presently developing these plans.

It is apparent, if not inevitable, that America's energy situation will worsen for the remainder of this decade. And if prompt and effective action is not taken by this Congress, our prospects for the 1980's are for a deepening and staggering tragedy.

American society as we knew it in the recent past and as we hope to leave it for our children cannot exist without energy. To our extremist critics, the fact that we use almost a third of the world's energy is to be condemned. What they fail to realize is that with the exception of

Switzerland, with an economy a fraction the size of ours, we are also the lowest user of energy per dollar of GNP in the world.

Though many factors and events have caused our current predicament, they are now a part of the past. We have it in our power to control the future.

We are responsible to those Americans already here; to those newly joining our work force; and to the 2 million Americans who will be born each year between now and the end of this century; to take this responsibility and to insure that there will be energy, reasonably priced, to fill their needs. I am convinced that it is now time that we in the Congress accept this responsibility; it is time that we Americans become our own best friend. Surrounding the legislation before appropriate committees of Congress relative to energy there are certain basic truths or principles. I have just alluded to the first and most obvious—this Nation needs oil and gas for energy purposes.

Second, there exists oil and gas resources in the Outer Continental Shelf which can be recovered in an environmentally sound manner. America has proven that over the past 2 dozen years of painstaking technological development.

Third, American people are looking to the Congress to exercise the leadership required to produce domestic energy efficiently, taking into consideration the environmental safeguards most Americans now realize are necessary. I should also point out under this principle that the American people want, have every right to, and deserve a better accounting of the execution of the leasing of public lands.

The American people also want a greater say-so in the how, the why, and the when of oil and gas recovery; and the American people want assurances and insurance against any destructive, debilitating or defiling consequences which flow from the development of Outer Continental Shelf resources.

From this follows that the decisionmaking on bringing ashore oil and gas must be made with the full participation of our State and local communities.

Fourth, an anguished but understandable confrontation has developed between oil and gas producers and their supporters on the one hand, and State political leaders, usually supported by environmentalists—on the other.

Fifth, this confrontation, which I have witnessed in many parts of the country, will cause unacceptable delays and serious damage to the United States unless it is resolved swiftly and equitably.

Some of the legislation under consideration here today will provide the Congress and the American people with the mechanisms to solve these issues.

Concerning the points above I have just discussed—I believe we need energy and we need it now.

Oil and gas equals energy.

Oil and gas production equals Outer Continental Shelf development.

However, let us look before we leap.

I am solidly opposed to using the current energy crisis as an excuse to rush into and execute plans that will butcher our coastal zone areas.

Let us see what the people back home are telling us through their mail, their visits, and through their representatives at the State level.

At a recent meeting of the National Governors' Conference, a

policy position was adopted concerning OCS development. Many of the items contained in that policy statement are embodied in some of the legislation being considered today. I will speak more specifically to those items later in this testimony.

To be perfectly truthful, there is a suspicion on the part of some of our people that they are not getting a fair market value for the oil and gas on public lands. They would much rather see the Federal Government do the exploration or contract for it, and then knowing what the value of these resources are, offer them for sale. In addition, the Federal Government would be in a better position to assess the environmental factors in relation to the resource potential. S. 426 provides these features and I have introduced a companion bill in the House.

Obviously I support them.

The State and local public want more of a voice in the leasing activity. They feel it's their coastline that will be impacted.

It's their life style that will have to change.

It's their economy that will be affected.

They want to acquire more of the related data needed to make wise leasing decisions.

This exploration and development will have a net negative impact in some cases and equity dictates that the States so impacted be compensated.

Incidentally, Texas loses \$60 million a year, and Louisiana would lose about \$30 million a year.

Some of the legislation you are considering here today will do just that.

Another issue is the timing of the leases. All but one of the coastal States are making extensive reports to develop coastal zone management plans as authorized by the Coastal Zone Management Act of 1972. Large-scale OCS development off their coast tomorrow would undue their efforts of today. The States want a chance to finish their planning and implement these plans. According to the briefings and hearings I have held, this can be achieved by mid-1977.

Some of the legislation being considered here today will allow just that.

A third issue is the location of the leases.

Much more information is needed in this area. The National Oceanic and Atmospheric Administration, and executive branch agency, has the scientific experience and expertise necessary to obtain the required information. People at the State and local level also are seeking assistance to plan for the onshore impact and to provide needed services. They need this help now so they can plan ahead. Personally, I advocate an outright appropriation for this effort. As called for by S. 426 and H.R. 3982. In this way the assistance would not be tied to revenue formulas and would be targeted for those States soon to be impacted by OCS development.

Another set of problems treated by the legislation under discussion is the safe recovery of these OCS resources without harming the environment. That can be done by enlisting the aid of NOAA, the agency in the executive branch with the scientific expertise and experience needed for marine research.

Someone has to do the job.

They have a head start in this area, and their expertise should inspire confidence in the States and agencies of the Federal Government.

I believe that the Department of the Interior should have a detailed development plan for OCS activity, and that this plan should be presented to State and local governments for comments. Again, these are the people who are involved. These are the people who ought to know what's going to happen to them, when it is going to happen, and how it is going to happen.

I can only conclude from last Friday's hearings before this body that the administration has made clear its position—it feels that no legislation is necessary at this time. The administration has said that before.

I ask this body, how long can we wait for those long-promised rules and regulations from the administration to move this country forward to get the energy it needs with the full compliance and involvement of the States?

We in the Congress cannot afford to wait.

Our constituents back home will not allow us to wait.

I cannot go to my district without people looking at me with fire in their eyes—and I mean fire—because of their electric and gas bills. And, I am sure, I am not alone in this experience.

Our citizens are demanding relief and will not—and in most cases economically cannot—adjust to energy blackmail. I agree with them and submit to this body that the well-being of this Nation demands that we not wait. We need legislation and we need it now.

One final aspect of the OCS issue is the widescale acceleration of OCS leasing. There are many of us who feel that 10 million acres are too big a chunk to cut loose in one fell swoop.

It would be a giveaway to the multinational energy cartels, many of whom do not fly the American flag, but flags of countries of other nations.

These companies do not have the machinery and equipment nor the trained manpower to explore and develop such a vast area. So the size of the leasing effort is a critical problem to solve. I think we ought to take a more planned and gradual approach to the offering of these valuable leases.

Obviously, it is in our best interests to bring ashore the oil and gas required to sustain our vitality if we are to remain a great Nation. Intricately involved in the OCS issue are favorable balance of payments, national security, nationwide employment rates, as well as the long-range well-being and future of this Nation.

In conclusion, as chairman of the House Oceanography Subcommittee, I urge that the combined wisdom of these two outstanding Senate committees be brought to bear on a resolution of the differences, as will be discussed today and in the days ahead, and that you look upon my recommendations, not as those of a Congressman from the 17th District of New York, but as a Representative of the United States Congress who has the best interests of all Americans in mind and who truly believes that the alternatives I support are the right ones for everyone concerned. Whatever your decision, I am committed to prompt action on the various House versions of this legislation in

my own subcommittee, the full Merchant Marine and Fisheries Committee, and on the floor of the House.

Finally, I urge that our timetable be such that the legislation is before the President before the end of the first session of this Congress. If we do not do this, the politics of 1976 very well could, realistically speaking, prove to be fatal to a resolution of this issue.

Thank you.

Senator METCALF. Thank you very much, Congressman Murphy, for a splendid statement and for a statement of the resolution that you as the chairman of the very significant and important subcommittee of the House are going forward with this legislation.

If you recall, the Senate last year passed a very similar bill to S. 521—S. 3221. I think the two committees considering this legislation have put it into top priority. The highest priority was the strip mining bill, which we have already passed.

So I am sure that on this side we will be able to meet your timetable.

I am delighted you commented on the testimony of Mr. Morton who said he doesn't want any legislation, which is sort of a tape recording of last year's testimony. I agree with you. We have waited long enough for the administration to move. It is time for us to get some legislation on the books and start to try to do something to stabilize our energy problem in this country.

Mr. MURPHY. Secretary Morton was way out front in his executive capacities years ago in promoting exploration of our Outer Continental Shelf drilling. I think it is the way it is done. Our agreement is we must take advantage of that resource and the executive branch knows we must take advantage of it for strategic purposes. I think the question is under whose rulebook that development is going to take place.

Senator METCALF. We have the problem of influx of population into sometimes partially settled and sometimes remote agricultural areas in every one of our bills and every one of our opportunities to look for energy sources. So whether it is coal, Outer Continental Shelf off the coast of New Jersey, or in Alaska, this sudden influx of population has to be taken care of. I think that maybe we can work out some way to have the industry that is making the impact put some front end money in with tax benefits and so forth.

The immediate thing is, as you suggest, cooperation with the State and local agencies and some Federal assistance in taking care of the need for services and schools and things of that sort.

I am delighted you brought that subject up.

Mr. MURPHY. Last Thursday the Federal Energy Office appeared before the Energy Subcommittee of the Commerce Committee of the House. They talked about Elk Hills, Alaska slope oil. They talked about the vast shale and coal resources in your own State of Montana, as well as out through the Midwest. Then they talked about salt doming for storage of oil and other products. That took place down in the gulf. When I asked them if they had any plans for any energy importation to the mid-Atlantic and New England States, they didn't have any. I asked them what their limits were, and in their own testimony, they wanted to limit the importation to the United States to 3 million barrels a day, which is almost the current importation in that area alone of America.

So it is obvious that the oil in Alaska and the energy out West is going to be very difficult to move to the East and Northeast.

We had in the House a vote that said no North Slope oil could be moved to the east coast. It would stay on the west coast. So Outer Continental Shelf drilling seems to me to be vital to the short- and middle- and long-range economy of the New England and Middle Atlantic States.

Senator METCALF. I know one Senator who is in accord with you that this bill is a matter of high urgency. As you point out, technologically OCS development can be a safe way to provide to the people of the eastern seashore of the United States some oil. I certainly want to cooperate with your bill.

This bill is in the full Committee of the Interior Committee, and, of course, the hearings are joint with Commerce. We have had a fine relationship with the Commerce Committee. I think we are going to meet your deadline of getting something out long before the end of this session.

Mr. MURPHY. Thank you, Senator.

Senator METCALF. Thank you.

Our next witness is Mr. David Bardin, commissioner of environmental protection, State of New Jersey.

Dave, it is good to have you here before the committee again. The last time we met you didn't have that camouflage on, but beard or no beard, we are delighted to have you.

STATEMENT OF DAVID BARDIN, COMMISSIONER OF ENVIRONMENTAL PROTECTION, STATE OF NEW JERSEY, ON BEHALF OF GOV. BRENDAN BYRNE OF NEW JERSEY

Mr. BARDIN. The State of New Jersey appreciates the opportunity extended by your committees to participate in your consideration of these important bills. We are in hearty agreement with what you have just heard, Congressman Murphy's very able and hearty summary of the issues here today.

Your work is of the greatest moment for New Jersey and the Nation, both from the standpoint of energy and from that of environment. We congratulate you on the joint effort by these two standing committees to reform our Federal laws concerning the continental shelf resources. Even though neither of our able Senators serves on your committees, we feel richly compensated by the leadership, constructive imagination, and dedication to reform in the public interest of your memberships. We feel very confident when we appear before you and present our problems to you. I say, especially to you, Senator Metcalf, I personally know and appreciate your long concern for the energy policies of the country over many, many years, when very few other people were speaking about them.

New Jersey's concern for proper continental shelf resources management is twofold. First, we now depend heavily on the continental shelf in the Gulf of Mexico, particularly for our natural gas supplies, particularly the Gul of Mexico off the coast of Louisiana. We are dissatisfied with the way in which existing law has been administered regarding that so-called mature area. We have had to go down to solicit with the Secretary of Interior, to visit with the Federal Power Com-

mission to express our concern with the mismanagement and the oil shortages which have resulted from the mismanagement of that resource.

Second, we are involved in the opportunities and risks regarding oil and gas which possibly await discovery in the so-called frontier area in the Atlantic Ocean off our shores, the Baltimore Canyon Trough area, indicated on the map attached to my statement. That map also shows the existing principal oil facilities: refineries and oil pipelines, as well as our New Jersey statutory coastal zone. The one marked in light gray, and the substantially larger area, the Federal maximum area cross-hatched which would be the maximum area that could be funneled under the provisions of the Coastal Zone Management Act. I think it is interesting to note, Mr. Chairman, that because of the tidal nature of our geography and the way our counties lie, that the great bulk of New Jersey falls within the coastal zone for Federal act purposes.

Senator METCALF. You mean the great population bulk?

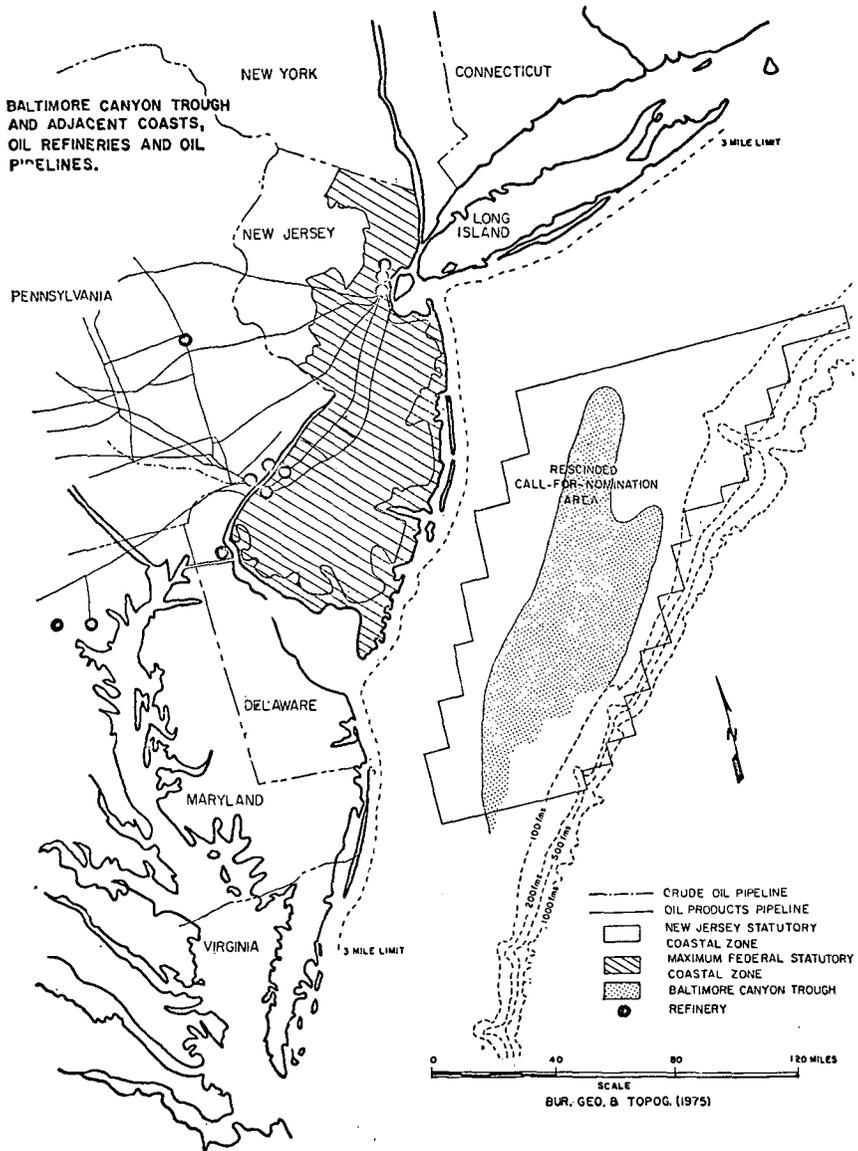
Mr. BARDIN. Certainly the great population bulk is in that area, but also some three-quarters of the State's area.

Senator METCALF. All that cross-hatched area, which is more than three-quarters?

Mr. BARDIN. It is probably 80 percent. You are right. I would request that this map be included in the record.

Senator METCALF. We will include that in the record.

[The map follows:]



Mr. BARDIN. For the short run only mature areas offer prospects of increased energy supplies. These prospects are good.

The Gulf of Mexico represents a comparatively known situation: many fields already proven and every reason to believe that there is a real and immediate source of supply if properly managed, including vigorous steps to bring about the production and sale of proven natural gas and to prevent contrived shortages.

Contrast the Baltimore Canyon Trough—as well as other portions of the Atlantic shelf—which may possibly yield oil and gas, but may

possibly yield only dry holes; and consider that the predictions of the optimists do not anticipate any actual production to help our energy situation until well into the decade of the 1980's.

Moreover, the Interior Department's own Geological Survey has estimated that the ultimate resources yet to be discovered in the Gulf of Mexico offshore far exceed those to be discovered in the entire Atlantic offshore. I might add, the Geological Survey statements have been very seriously criticized on the ground these statements are too high, but I am aware of no criticism as to this relationship. For example, Mobil Oil Co. made a statement which appeared in the Oil and Gas Journal months ago, and it was far lower in total amounts than these two numbers of the Geological Survey. But the relationship was the same, about twice as much oil and gas guessed to be findable in the Gulf of Mexico as in the entire Atlantic offshore.

Senator METCALF. The point there is, we already have the facilities, and it would be easier to put those into operation than to have to have new coastal plants and so forth in the northern part of the United States.

Mr. BARDIN. Absolutely, Senator Metcalf. We want a balance, of course. We want to be aiming at some exploration to find out what we have there. But for the short run, the lion's share of the effort must go to exploring in the Gulf of Mexico for new fields, for developing what we have discovered and for putting these resources into production.

One of the most disturbing aspects of the present administration of the existing law is it has not effectively gotten these resources into production at a time of desperate need in this country.

New Jersey's concerns for our coastal environment must take account of our population of nearly 8 million people living in the highest average density of any State in the union, in a large part in the metropolitan area of New York and New Jersey and Greater Philadelphia. Our coastal environment is fragile and the more valuable because of the scarcity of natural areas. For example, in contrast to over 7 million acres of wetlands and marsh in the State of Louisiana, contributing to water quality, wildlife, marine life, and recreational opportunities, our entire State extends over only 4.8 million acres, which includes 330,000 remaining acres of wetlands.

The destruction of many valuable acres of wetlands prior to passage and implementation of our State Wetlands Act makes us the more sensitive to the value of the remainder. Our ocean shore includes barrier beach islands and peninsulas which have been extensively developed for recreation, involving both a tourism industry and investments, financial and emotional, by owners of beach homes.

New Jersey's general position was recently expressed in two attached documents that follow: Governor Byrne's letter of February 26, and the Governor's statement of February 11 at the Interior Department hearings on the proposed environmental impact statement regarding continental shelf leasing programs. Rather than restate them, I submit them for inclusion in the record for convenience of reference.

Senator METCALF. Without objection, they will be included at this point in the record.

[The Governor's letter and statement follow:]

STATE OF NEW JERSEY,
OFFICE OF THE GOVERNOR,
Trenton, February 26, 1975.

TIME MAGAZINE,
*Rockefeller Center,
New York, N.Y.*

To the Editors: During these times of energy shortages the "outer continental shelf" has become a familiar phrase. Many persons believe that this shelf, particularly offshore New Jersey, contains recoverable quantities of oil and gas.

The United States Department of Interior has embarked on a crash program to lease these public lands for private exploration and development. (Parenthetically, the issue of which public entity owns these lands was argued in the Supreme Court on February 24). Even if this crash program proceeds at its intended pace, oil and gas from the shelf, if there is any there, will not reach consumers for approximately seven years.

Decisions made in a crisis situation are often finalized without a thoughtful consideration of the consequences or alternatives. The decisions which have been made by the Interior Department concerning offshore lands are classic examples of this one-dimensional approach. They propose to lease huge tracts of shelf without any idea of whether minerals will be found at these locations. Who will benefit from this type of decision-making? The oil companies or the public?

I am not unmindful of the need to develop new domestic sources of energy. New Jersey is more heavily dependent on imported oil than most other areas of the nation and has suffered severe consequences as a result. We in New Jersey have not avoided our responsibilities and have done more than a fair share of the refining for the east coast. While the State constitutes less than 2% of the land area of the eastern coastal states, 33% of the refining is done here.

We are willing to continue to assist in the solution of regional and national problems. But most Governors will not sit by silently as the federal bureaucracy rushes headlong into a program which will benefit the oil companies at the expense of a State's priceless Atlantic coastal beaches and tourist industry.

The State of New Jersey in conjunction with several other Atlantic coastal states has developed and submitted a positive program for the continental shelf to the federal government. This program is not intended to unnecessarily delay the search for energy resources. In fact, it would expedite that effort by avoiding protracted intergovernmental disputes, improving the current leasing system and assuring that the public interest is protected while the search for oil and gas proceeds.

A key element in the program would be to initiate prompt exploration to determine the extent of recoverable oil and gas. To assure that the public interest is adequately protected, the exploration should be subject to thorough controls and be separated from any decision to extract the resources. In addition, the utilization of the continental shelf should be consistent with a national comprehensive and balanced energy policy developed in cooperation with the States and the public. The environmental impact of various leasing and development arrangements should be thoroughly analysed so that alternatives which minimize harm to the coastal states are identified and implemented. In the event that the Supreme Court ultimately decides that the federal government is the proprietor of the offshore areas, the revenues which are derived should be shared with the coastal states to compensate them for unavoided adverse effects. Additional federal efforts to assist the affected state plan for the onshore impacts of a substantial drilling and production should be undertaken. The program which I have briefly outlined would not delay the nation's quest for oil and gas. In fact, if the federal government accepts these proposals it is likely that these efforts will proceed more expeditiously.

It is time that the federal government began to share responsibility for critical continental shelf decisions with the States. Many of the questions which have been raised (what is the environmental impact of the program, what alternatives are available, and how can the leasing programs be designed for maximum public benefit) should be addressed in a new environmental impact statement, to replace the inadequate document which was issued. By involving the coastal states in this process, the Department of Interior can demonstrate that it has

learned from its past mistakes and the nation will be closer to a determination of the extent of mineral resources on the continental shelf.

Sincerely,

BRENDAN BYRNE,
Governor.

STATEMENT OF GOVERNOR BRENDAN BYRNE OF NEW JERSEY

Most of us on the East Coast—in fact, most Americans—recognize our dependence on fossil fuel energy resources for at least the next decade. Accordingly, we appreciate the need for a safe and secure supply of oil and gas for fuel and, in some cases, for feedstocks.

We in New Jersey have particular reason to be concerned, because our largest industry is chemical and petrochemical production. Private and industrial use in New Jersey requires about 680,000 barrels of petroleum and 912 million cubic feet of natural gas a day.

At the same time, we must be equally concerned about our second largest industry—tourism—which generates more than \$2 billion a year for our economy.

It is imperative that any exploration or development of our Continental Shelf resources be undertaken in a manner that protects both our petrochemical industry and our tourist industry from devastating economic and environmental effects. Only if Continental Shelf policy reflects the proper balance between the need to increase domestic supply and the need to protect our environment and existing economy on shore will both of those industries—and countless others—be protected.

Technically, this hearing concerns a 1300-page draft environmental impact statement prepared by the Department of the Interior on accelerated leasing of Continental Shelf lands. More profoundly, it is part of a coast-to-coast public outcry against the type of Federal mismanagement of public resources which has produced, as an example, the worst natural gas shortage in our history.

You have heard the reactions of state and local officials as well as those of concerned citizens, at your hearings in Alaska and California. You are going to hear much the same this week in Trenton. You will hear stern and unequivocal criticism of the professional inadequacies and glaring omissions in the impact statement you have laid before us. You will hear severe criticism of the helter-skelter policies which it attempts to analyze.

And you will begin to understand why we refuse to bend to the pressures of the Federal government and the big oil companies who have advocated the precipitous and unwise expanded leasing policy that your draft environmental impact statement attempts to justify unsuccessfully.

New Jersey joins the growing list of states, regions and even Federal agencies which have found the draft environmental impact statement seriously deficient. We concur in the constructive analyses filed by the Commonwealth of Virginia, the State of Maryland, the New England Regional Commission and the United States Environmental Protection Agency.

I think it is essential that such criticism be placed in the proper perspective. At the conclusion of this set of hearings I, hope you will recognize that sound planning and development judgments can only be made if the states and regions which share a common concern for the public's resources are involved in the decisions concerning the management of those resources and the quality of our onshore and offshore environment.

Only if those decisions are made jointly by the states and the Federal government will we be able to move forward without unnecessary delay.

The Atlantic Coastal States have been cooperating closely in examining Federal Continental Shelf proposals, and in assessing alternatives to present policies and practices. The New England States have, through their Governors' Conference, adopted a strong resolution on Continental Shelf policy. The Mid-Atlantic States have also formed an active regional group to work together for a sound program. The East Coast States have met together twice at my invitation and have drawn up a policy statement which represents the direction most of us believe Continental Shelf policy should take. I am transmitting a copy of that statement to Secretary Morton and it is available here today.

We do not question the motives of the Department of the Interior; neither do we criticize the environmental impact statement lightly.

Unfortunately, the course upon which the Interior Department is now embarked provides little protection for our industries or for our citizens. The proposal on which you are holding hearings today is not to accelerate exploration or production, but to accelerate leasing; to sell up to 10 million acres this year without any assurance against withholding known gas deposits from market.

Your analysis of the program should include assessment of economic and social as well as ecological impacts and the full evaluation of alternatives.

In stark contrast to what your assessment should include, the impact statement is virtually silent as to the real alternatives to the proposed leasing program, and it certainly does not do justice to the multitude of impacts threatened by the program.

It does not even recognize the simple fact that accelerated leasing does not necessarily mean accelerated exploration—much less oil or gas production—either now or within the decade.

It devotes only 30 pages to onshore impacts of the program. This sketchy treatment is particularly distressing in light of past promises. When the Administration opposed Senate Bill 3221 last May, your spokesman stated that the environmental assessment would be broad and would include the assessment of social and economic impact onshore.

Yet your draft virtually ignores these matters.

The draft pays inadequate attention to the interplay of the use of Continental Shelf energy resources with the use of the other resources of the Continental Shelf such as fishing, commerce and recreation. This is particularly upsetting because the Continental Shelf represents one of our greatest natural resources.

You have devoted a couple of pages to the entire question of alternative means of exploration for the fossil fuel resources of the Shelf. This superficial examination is, in fact, obstruction by the Federal Government, and can only delay exploration for and production of whatever oil the Atlantic Shelf may contain.

Let me explain this statement.

The National Environmental Policy Act requires that major programs be analyzed carefully. The analysis is to include a consideration of the technology, its impacts and alternative technologies or institutional arrangements. Failure to comply with these requirements has led to court actions in the past—court actions which have generally had a salutary effect on the performance of the agencies in question which have thereafter more carefully analyzed their programs. Failure to comply with the Act in this case will breed litigation and delay.

The draft does not truly assess the environmental impact of the leasing program, nor does it seriously consider alternatives to the program. It even fails to serve as a justification for the Administration's bankrupt energy policy.

I believe that the Interior Department would make a serious mistake by using this draft as the basis of a final impact statement. You should start over again. This time it should be done in partnership with the states, to develop an impact statement that will be useful in the decision-making and management processes which must be judiciously and deliberately undertaken if such a study is to serve the best interests of the people of the United States.

It is my strong recommendation that the Interior Department form a joint Federal-state task force to produce an impact statement, or perhaps a series of impact statements for the various frontier areas. The states have developed expertise not only in land use, not only in social and economic problems on shore, not only in the ecology of areas off shore, but also in the whole field of energy problems. Their full participation in the process could only improve the document and, even more important, streamline the exploration process.

The major policy issue confronting our country today is how to analyze our energy choices, and by what means we will make our energy decisions. We should confront that issue directly and together.

The first task we must undertake is an assessment of the resources that may be found on the Continental Shelf. In the case of the Shelf off Louisiana and adjacent portions of the Gulf Coast, we have had a long experience, starting on shore and gradually moving off shore. During the entire process, we have explored areas where we had strong reasons to expect that sediments which had borne proved oil and gas reserves in earlier exploration would also contain reserves further off shore.

That process, and that set of assumptions, may have proven profitable and valid in the Gulf Coast. In the case of the frontier areas, however, which make

up a very large part of the acreage under discussion today, we have no such assurances. We do not know how much or how little, or even if anything may be found. Our first job, therefore, is not to auction off the leases and, with them, the right to private corporations and cartels to choose whether or not they wish to explore them.

The separation of exploration from leasing for production is the key to sensible management of Continental Shelf resources. We should design a reasonable program of exploration from the standpoint of energy and economics and we should assess its environmental impact.

It appears most likely that such an analysis will justify going ahead expeditiously with a carefully controlled program of exploration, at least in the Baltimore Canyon Trough off the coast of New Jersey, New York, Delaware, Maryland and Virginia. If so, we should look to the Federal government to finance appropriate exploratory efforts, including drilling.

The program, like the environmental and economic assessments that precede it, should be developed in close collaboration with the states. It should also include the opportunity for public comment and discussion. Our discussion should consider alternative program management agencies, including perhaps the United States Navy or the National Atmospheric and Oceanic Administration. It should consider creating a board consisting of representatives of the Coastal States, Governors and relevant Federal agencies to guide the policy of the program's management. Another alternative would be a corporation such as Comsat to oversee exploration.

The costs of such exploration would be trivial compared to the existing Federal revenues from the Gulf of Mexico Continental Shelf, not to mention the \$26 billion a year of outlays for foreign oil which this program might some day help us to reduce.

If we want to advance quickly in the direction of energy independence, there will have to be a substantial Federal investment and a Federal effort far exceeding that which is contemplated by the "business as usual" leasing program advanced by the Department of the Interior.

Once we have assessed the size of the resources in the Atlantic Outer Continental Shelf, then we would be equipped with the data necessary to analyze the onshore and offshore impacts of developing and exploiting that resource. The present absence of good data makes it impossible to project with any accuracy rates of production and, therefore, impossible to determine the adequacy of the present refining capacity, terminals and other facilities for future production.

There is little sense in speculating now, when we could accurately project in the future. There is no sense trying to assess the impact of something which is totally unknown, when we could wait to properly assess that which is known.

Accordingly, I strongly urge that the Department of the Interior abandon an effort which has been ill-conceived and ill-coordinated with the other Federal bodies, not to mention the states and regions. I urge that your analyses be confined to programs for exploration of the particular regional new frontier areas, such as the Baltimore Canyon Trough. You should evaluate fully, in a new environmental impact statement, the alternative means of financing, managing and leasing Continental Shelf lands.

Intensive work of this sort is necessary before any steps are made in the leasing sequence, including issuing a call for nominations. Only after it is fully determined what kind of program for exploration and development will be followed should a call be issued. When issued, the call could then include a full description of the terms and conditions of a lease, so that all potential bidders, including perhaps states themselves or groups of states, could participate fully and intelligently in the process.

The new impact statement should recognize that no sound judgments on offshore oil development proposals can be made in the absence of a comprehensive national energy policy. The Administration has consistently failed to give us an acceptable policy. A national energy policy should be truly national, not just Federal, and should certainly be more than the pronouncements of the Executive Branch. The development of this policy too requires a partnership between the Federal government and the states.

At our meeting in Princeton on January 31, Secretary of the Interior Rogers Morton pledged to work jointly with the interested states to define specifications for environmental impact statements: Specifications for impact statements on exploration and impact statements on production. I call upon the Department to live up to the Secretary's promise. I pledge that we in turn are ready to co-

operate with you and the Congress in developing a sound system of analyses, and, thereafter, in implementing that system.

I also call upon you to live up to the promise and commitment made by the solicitor of the Department of Interior in December 1971. At that time the Department and the defendant states in the *U.S. v. Maine Suit* agreed in writing that the Department would take no action to lease Atlantic Shelf lands, including issuing a call for nominations, until the case was decided by the U.S. Supreme Court, or until all parties agreed otherwise. The Department is now attempting to renege on that commitment. I have instructed the Attorney General of New Jersey to take whatever legal steps are necessary to insure that the Department keeps its word, or has it kept for it by the courts.

Mr. BARDIN. Thank you.

In short, New Jersey's situation exemplifies the balance that you seek in your legislative efforts. We are still an importer of fossil fuels for our basic energy needs—although nuclear power is a growing factor in our energy economy. Our largest industries, petroleum and chemicals, include the most refinery capacity of any State on the east coast. At the same time, our citizens value a quality environment and we seek the path to orderly land uses and developments. Our second largest industry, tourism, is dependent on beaches, surf and bay, clean, fresh air, and the ambience of our Atlantic shore.

We recognize acutely and urgently the need for a clear and specific legislative framework for the continental shelf. We need a framework of law that will guide—and bind—the Federal agencies in decision-making, in regulation, and in timely implementation.

Senator METCALF. If you will pardon me a moment, I suspect that that word "bind" is the reason that the Secretary of Interior came in here and testified we need no legislation. He doesn't want any statutory regulation. He wants to have the freedom he has had since 1953, in either doing nothing or doing very little.

Mr. BARDIN. We share your disagreement, Senator Metcalf, with the administration's position, its reluctance to be bound by legislation. Let me speak to that. Because we do respect Secretary Morton personally. We do feel that here is a Secretary of the Interior who has probably set out to do more in his administration than any previous Secretary to correct some of the very flaws we are complaining about. But the fact is this correction has not been accomplished. The fact is the Secretary of the Interior is not a fully free agent in his own house. There are other forces to which he is subject, including OMB and others. And we feel that our citizens are entitled to a clear delineation by the policy arm of our Federal Government, the Congress, by the legislative process of just what the ground rules are going to be.

We have been burned for lack of that. We have had written agreements between the States of the Atlantic Coast and the Department of the Interior, which were signed in 1971 and became inoperative, according to the Department of the Interior, in 1975. We don't want to see that happen to our citizens and we don't think you want to see that happen to our citizens. The only way we know to bind the Federal establishment is through legislation. So that is why we turn to you.

Senator METCALF. I wholeheartedly agree. I agree not only for the proposition that you have stated about your desire for clean beaches and clean air and an environment that is conducive to tourism, but I agree that we have to pass legislation in view of the administration, to give some stability to this industry. No one is going in to invest the huge sums of money we have to have for offshore

exploration or development until they know what the rules are going to be. It seems to me that it is necessary for us to pass some statutory rules that will give the people who are going to invest huge sums of money the rules of the game with which they are going to plan in the next few years.

Mr. BARDIN. You are absolutely correct. My conversations with executives in the oil industry, I run into this problem time and again, that they don't know what investment move to make until we have a clear delineation of the national energy policy and the mechanisms and guidelines by which it will be implemented. We have had at least one very large and important project, energy project, in New Jersey, which was canceled suddenly and abruptly by the would be intended investor as—a major oil company—as a result of this kind of uncertainty. As recently as last week they advised me they don't think they will actually reach a final decision again until this uncertainty that you discuss is cured.

I think, also, Senator Metcalf, it is important from the point of view of the executive branch and the Federal bureaucracy that has to administer and implement law, too much discretion is not a good thing for the Federal establishment. I say this having had 11 years of experience with the Federal establishment.

The governing statutory law was passed over two decades ago. It is grossly inadequate in terms of the energy and environmental needs which experience has since disclosed.

You will recall that the legislation back in the early 1950's was passed on a struggle between the States, the Gulf Coast States and the Federal Government regarding money and money alone. The energy crisis was not then upon us. Our environmental perceptions of recent years were not available to us.

We are fortunate that leadership in the Congress has recognized these inadequacies and moved to correct them. Last year, Senator Jackson broke the inertia of more than 20 years with the introduction of S. 3221, the hearings on that bill, and its passage by the Senate. That bill articulated a comprehensive alternative to the inadequate legislation now on the books, and to the weaknesses of its administration over the years. We are deeply grateful for Senator Jackson's initiative.

We are grateful, too, for the Commerce Committee's undertaking the national oceans policy study and for the leadership and purpose that Senator Hollings has brought to that effort. His work has illuminated vital issues and he has personally aided New Jersey and other Atlantic coastal States in our grappling with these issues.

We acknowledge, too, the invaluable assistance of the staffs of your committees.

This year, in addition to S. 521—the substantial reintroduction of last Congress' S. 3221—we have two additional comprehensive measures, S. 426, introduced by Senator Hollings and cosponsored by Senators Case and Williams of New Jersey among others, and most recently, S. 740, introduced by Senator Jackson. We also have a number of specialized bills, virtually every one offering improvements to the present situation. These include S. 825, S. 826, and S. 827, introduced by Senator Case. In my judgment the Congress would do well to synthesize several key provisions of the various bills and include them in

legislation which carries out a comprehensive plan for management of Continental Shelf resources.

Appropriate legislation will have to deal both with mature areas such as the Gulf of Mexico and frontier areas, not yet explored, such as the Baltimore Canyon Trough off New Jersey shores. The same basic principles should guide us no matter what the outcome of the dispute, between the Federal Government and the Atlantic "common counsel" State, argued last month before the U.S. Supreme Court in *United States v. Maine*.

My remarks will be addressed first to the shortcomings in the existing situation and then to the salient provisions which we in New Jersey believe appropriate legislation should be designed to include.

We agree fully with the position of the National Governors Conference, presented to you on March 14 by Governor Salmon, and we shall try to supplement rather than repeat his cogent remarks.

Existing legislation regarding Continental Shelf energy resources has not effectively governed the development and management of these resources. Federal practices have relegated most fundamental decisions, and even the informational basis for decisionmaking, to a relative handful of oil companies. I emphasize that information point, Senator Metcalf, because I very well recall how many years ago you hammered home the point of inadequacy of the Federal Establishment's knowledge of what is going on. Information is power and when we allow the information to remain in the private possession of the oil companies we are denying power to the Federal Establishment. If we allow the information to remain with the Federal Establishment and be denied to the States and the people, then we are denying power to the people of the United States to whom it really belongs under our constitutional system.

Current practices have not provided adequate supplies of energy from Continental Shelf lands for the people of the United States.

Existing legislation has tolerated these practices, and has resulted in the following deficiencies:

1. A failure to insure rapid exploratory work and timely and orderly development of Continental Shelf energy resources;
2. A failure to recognize the wide range of adverse impacts—environmental, economic, and social—that Continental Shelf oil and gas development inflicts on the residents of coastal States and their local and State governments;
3. A failure to adequately balance the other resource values of the Continental Shelf and coastal zone with their potential resource values;
4. A failure of our tort liability system to compensate for all business and individual injuries suffered as an outgrowth of Continental Shelf exploitation, for example, the shore hotelman whose business collapses after an oil spill;
5. A failure to guarantee that the public treasury receives full value for the public resources;
6. A failure to view the energy resources of the Continental Shelf in the context of a coherent national energy supply policy or strategy;
7. A failure to share information with the public and to involve the public and its State and local representatives in the key planning and key decisionmaking.

These failures account for the loss of public confidence in the Federal Continental Shelf program. They must be remedied, and they must be remedied quickly. In my view, the only way to accomplish this is through major revisions in legislation. Appropriate legislative reforms are essential to assure that administrative practices governing the continental shelf energy resources will be corrected and that the public's faith will be restored.

We are not here today to discuss such parochial issues as the impact on New Jersey of oil and gas development in the Baltimore Canyon Trough. In the proper legislative framework, such matters will be recognized and properly assessed. What we are discussing today is a major revision and restructuring of the entire apparatus governing Continental Shelf leasing, exploration and development, both in the "mature" areas such as the Gulf of Mexico and in the "frontier" areas such as the Atlantic Ocean.

We have identified seven essential guiding principles which we have set forth for you.

Sirs, that production from fields already discovered and further exploration in mature areas such as the Gulf of Mexico should be expedited.

Significant oil and gas reserves are known to exist in certain already well-developed shelf areas. Additional reserves as yet undiscovered, are suspected to exist in such areas. It is mandatory that new legislation insure rapid production from these reserves. We must not suffer the economic damage that results from shut-in wells or delays in bringing known reserves from under the Gulf to market. At the least the new law should prescribe a mandatory minimum scale of delay rentals, rising each year after leasing so that there would be a clear, strong economic incentive for the private sector to get that lease developed as quickly as possible and get it into production as quickly as possible. A system of policing which depends on bureaucrats deciding what the excuse might be and whether the excuse for nonproduction is adequate or inadequate simply does not give us and our citizens and our industry such assurance.

The executive branch should be allowed to raise, but not to lower that scale. Leases already issued must be policed vigorously by an agency the public can trust or at least the policemen must be policed vigorously. The National Energy Production Board proposed by S. 740 could be that agency.

Exploration to determine the location and approximate size of oil and gas resources, at least in the frontier areas should proceed before any decisions as to commercial development and production. I think this principle has been fairly widely received as a result of the debates of the last few months.

The existing system of leasing both exploration rights and production rights at the same time is seriously delaying exploration of the frontier areas. A clear separation of exploration from production leasing will insure that:

(a) The broader energy policy planning which our Nation so desperately needs will be based on known data rather than unknown guesswork.

(b) Timely steps can be taken both in assessing and in planning infrastructure needs onshore and in avoiding or minimizing adverse impacts that accompany the development of such resources.

(c) The public treasury will receive full value for the development of what are, after all, the public's resources. This could also be insured through significant and major revision in the lease bidding procedures proposed in both S. 426 and S. 521.

Now, once we separate the decision to explore from the decision to produce, several important consequences will follow. Let me mention a few. We should then separately consider the appropriate maximum tract size for exploration and for exploitation. I don't believe anywhere else in the world do we use 5,000-acre maximum size tracts. We adopted the small tract size and we seem to be adhering in all of the bills so far to the small tract size in order to stimulate or make possible competition in this industry. I respectfully suggest to the committee that perhaps once we have made the decision to separate exploration from production, that we could find other devices to assure competition rather than the small tract size which breeds inefficiencies. Obviously, at the very least, we should require compulsory unitization in the development and production of these tracts.

We should also make it possible for natural gas deposits to be exploited by local or interstate gas companies, rather than by the oil companies. The oil companies are not basically interested in the natural gas business. To some extent, they discover natural gas as an incident to the search for natural oil. To some extent, their skills at exploration can be translated into a search for gas as well as oil. When it comes to the production, oil and gas are in competition, and it would be much more natural to have at least a large part of the newly discovered natural gas reserves produced by organizations whose primary commitment is to the natural gas consumer and the natural gas business.

In this regard, we would be concerned about a rule that it had to be auctioned off to the highest bidder. You will recall during the oil embargo royalty oil, Federal regulations were put to good effect, to assure supplies to independent refiners. Governor Byrnes has urged President Ford to see to it that we do likewise with natural gas, to relieve the most seriously curtailed pipeline companies in portions of the country. So the automatic option—

Senator BARTLETT. Would you mind an interruption?

I found it very intriguing that you said the oil companies are not interested in the development of gas. It is my information in our domestic production, our domestic reserves of oil and gas, that we have more BTU's of gas than we have of oil. I think the oil companies are very much aware of the fact that gas has been, and still is, the cheapest buy, and this is part of our problem, that we have controlled prices of gas which are currently frozen at such low prices that this artificially stimulates the demand and has misused gas in so many ways. But I think that you are getting in a rather weak area when you claim that oil companies are not aware of the value, nor are they interested in producing it. But I would like to point out they are aware of what the price brings. I mean, they are aware of the lower price for interstate gas.

You are aware that the offshore, as well as the Outer Continental Shelf development of gas today, has dropped off very sharply because the price, at 51 cents a thousand, equates with only \$3.06 a barrel. Certainly oil companies are going to explore where the price is \$12.50 or \$12.75 a barrel, in preference to where the equivalent price for gas would be \$3.06 a barrel.

On the other hand, in the intrastate markets—Texas, Louisiana, Oklahoma—there has been a great deal of stimulation for gas. It is a far superior fuel, really, than oil in many regards, because the price there is in the free market and is attractive to those wanting to explore.

I appreciate any comment you have.

Mr. BARDIN. I respect the points you raised, Senator Bartlett, but I reach very different conclusions from yours.

The fact that seems critical to me is that oil companies have a strategic interest, and, indeed, necessity, the integrated oil companies, of keeping that refinery investment in use. One of the differences between oil and natural gas is that oil takes an awful lot of investment to make it usable, to make usable products out of it, whereas natural gas takes very little. In effect, it is a liquid stripping operation and then pipelining to the burner.

The oil companies have to find oil supplies in order to meet their responsibility to their stockholders, vis-a-vis the refinery investment and the marketing investments. That is not true as to natural gas.

On the other hand, the natural gas distributors and the natural gas pipeline companies have simple investments in natural gas facilities which tend to affect their strategic posture.

So while I would not come here and pretend to you that no oil company is interested in making a buck on natural gas sales—quite the contrary. I would say the strategic posture of these two industries or sub-industries is very different. One of the facts of life that concerns me is we have set up a leasing system based on our thinking about oil which has resulted in very little participation, some participation, but very little, by the natural gas industry in our offshore development. I think, for the long run, that is unwholesome in trying to meet our energy needs.

As far as price, and price regulation, I think there is another hearing going on elsewhere today on this subject and I will not belabor the record on it, but when I left the Federal Government at the end of 1969, the oil industry was collecting 20 cents and saying that wasn't enough. It had to go up to 25,000 a thousand cubic feet or we would run out of natural gas. Now over the last 5 years, the executive branch has allowed that price to more than double and we are still hearing the same kind of story.

The behavior of the investor in exploration depends on a number of factors—price is one. How much front-end money do we charge them for the lease? It is somewhat hypocritical of us to try to have our Office of Management and Budget to press to maximize the front-end bonus money that the oil companies have to pay for the lease, and then try to control the price afterwards. We are pushing the price up by that activity, or squeezing the profit incentive down.

Senator BARTLETT. I didn't mean to interrupt you, but I think that you are making some statements relative to the price of gas which do not pay attention to the relative position of oil and gas. You are disregarding it. I am sure that you are not trying to say that the prices are equal and that an oil company would have the same incentive to explore or develop gas as he has to explore or develop oil.

The average price at the wellhead paid for gas delivered to the East is around a little less than 30 cents a thousand. That equates, as you know, to just a little bit over \$1.80 a barrel. As you know, having been in the Government where you had a great influence on oil prices, as well as gas prices, that oil has not been at that price for years, even when it was low enough at \$3.09 a barrel to drive thousands of independents out of the industry and create the current crisis of shortage.

So a producer of interstate gas is accumulating capital at the rate of \$1.80 a barrel, which means that he does not have any capital to invest in interstate gas development or exploration. Then he has a new price, a new high price of 51 cents of interstate gas which he equates with \$3.06 a barrel for development. I think you will agree, and I will ask you, do you believe that an oil company or gas company developing—I am speaking of a gas exploration company—developing gas production, can economically afford to drill and develop offshore Outer Continental Shelf gas at 51 cents a thousand, and would you not agree that this company would be much wiser to develop oil in preference to gas at \$1.75 a barrel?

Mr. BARDIN. For the selfish point of view, from the point of view of corporate managers responsible to stockholders, if you give them an opportunity to make windfall profits on oil, and only reasonable profits on gas, obviously they will go to the windfall profits. What has happened, Senator Bartlett, and I think you will agree with me, is something very simple. The Congress last year voted to roll back the price of new oil, which the Congress concluded was outrageously high at \$11 a barrel and was not necessary as a fair profit or an inducement. The President—

Senator BARTLETT. The average price is not \$11 a barrel.

Mr. BARDIN. The Congress wanted to roll back—

Senator BARTLETT. What was the average price—

Senator METCALF. Can we let the witness finish his statement?

Senator BARTLETT. The witness made an incorrect statement.

Mr. BARDIN. All right. The world price a few weeks ago was \$11.

Senator METCALF. Let him finish it incorrectly.

Senator BARTLETT. You like incorrect statements?

Senator METCALF. I just want to hear what he has to say.

Senator BARTLETT. Whether he is correct or not?

Proceed with your incorrect statement.

Mr. BARDIN. The price of new oil has been several dollars a barrel higher than the regulated price of new oil. Congress voted to roll back the price of new oil. The President vetoed that. We have a situation of imbalance created by the fact that the Congress in my eyes, and you may disagree with me, has been trying to protect our consumers, including our industrial consumers, the lifeblood of our economy, and this President, as well as his predecessor, has been trying to raise

the price of fuels at a time when we are going deeper and deeper into a recession. This is a profound economic disagreement and it happens the Congress has consistently taken one position, but not yet been able to override the President's vetoes, so we have the imbalance of the kind of status quo on one and movement on the other. Hopefully the Congress and President will push this matter to one consistent resolution, I hope, one that favors the consumer and protects our interests during the recession, but one which also makes it attractive and profitable to explore for oil and gas.

Senator METCALF. Now, Senator Bartlett.

Senator BARTLETT. Thank you. I am going to be very short.

One of the duties to the consumer of gas, as well as oil and oil products, is to provide an ample supply. This has not been done by the Government, the controls both direct and indirect. Those who have favored roll back in prices, including the chairman of this committee, and including others who have indicated interest in the Presidency, because you were talking about two past Presidents, I think are not going to be supplying ample supplies to the consumer.

A number of years ago President Roosevelt guaranteed two cars in every garage, and I think those who advocated a roll back in prices were going to guarantee the cars are going to stay there.

Thank you, sir. Thank you, Mr. Chairman.

Mr. BARDIN. We—

Senator METCALF. That was Hoover who guaranteed two cars in every garage and a chicken in every pot.

Mr. BARDIN. He fulfilled his guarantee.

Senator BARTLETT. We will give Hoover credit, then.

Mr. BARDIN. I have not heard anybody in the oil panel tell me we cannot make a good profit at \$5 a barrel of oil. I am surprised if we could not do it. If we want to price oil higher to achieve rationing is a matter between the Congress and the President.

I think turning to the offshore, the subject of this hearing, what has bothered us is that the Continental Shelf is entirely interstate gas under the Natural Gas Act. None of that is entitled to intrastate treatment. None of that is exempt from regulation. We have had indications which have concerned our people, businessmen who consume gas, indications that gas has been discovered out there and is not being marketed, because producers are waiting in the hope that the administration's legislation will succeed, that President Ford's bill will go through, and we will deregulate new gas and raise the price. Just last Friday the Wall Street Journal carried an article on this subject indicating there are three oil firms, three of the major international oil firms, have been identified by the Interior Department as withholding gas. One of them was said by the Wall Street Journal article to have conceded that.

I wonder if it would be appropriate to offer that article for inclusion in the record at this point, with a copy to Senator Bartlett.

Senator METCALF. If you wish, without objection.

[The Wall Street Journal article follows:]

[From the Wall Street Journal, Mar. 14, 1975]

OIL FIRMS TO BE TOLD TO START OUTPUT SOON ON 3 FEDERAL GAS LEASES OR LOSE THEM

(By Les Gapay)

WASHINGTON.—The Interior Department is preparing to warn three oil companies to begin production quickly on three of their federal natural gas leases in the Gulf of Mexico or face losing the leases.

The companies are Texaco Inc., Exxon Corp. and Standard Oil Co. of California's Chevron Oil Co. subsidiary. Each of the three companies has one lease that is being studied by the Interior Department.

The department is about ready to announce, possibly today, that it will send the warning letters to the companies, Interior Department sources said. The matter is part of a department investigation of why some gas wells on federal offshore leases have been "shut in" and whether any of the lack of production is because companies are waiting for natural gas prices to rise.

Texaco conceded to the Interior Department that the price of gas was its main consideration in holding back production. The company said in a recent letter to the department that it wasn't developing the lease it was questioned about because at current prices allowed by the Federal Power Commission it can't recover its costs.

The warning letters will state that the department "is concerned about diligent development of the leases," according to department sources. The companies will be asked to tell when and how production will proceed. The letters will say that such information will be used to determine whether the department will grant an extension of existing suspension permits or issue orders requiring immediate drilling or production to begin.

If the latter order is issued and isn't obeyed, the companies would be forced to give up the leases. The three leases involved have temporary suspension-of-development permits that expire June 30.

In late January, the department sent letters to 10 oil and gas companies asking for explanations for lack of production at 17 gas leases. Investigation of some of the companies is continuing, officials said. Officials said one company has begun production since the January letter and another said it would start production soon.

In general, the companies responded by blaming lack of exploration or production on waits for equipment such as drilling platforms that had been ordered; on the claim that the reserves were too small to be economically produced, and on delays in negotiating with pipeline companies for sales of the gas. Some of the companies indicated they might have to give up their leases if they determine the reserves involved are too small to warrant production.

Federal laws and Interior Department rules provide that companies must make "diligent" efforts at production. If a lease doesn't show production within five years after the sale by the federal government, extensions for valid reasons can be given by the department for one year at a time.

The three leases involved in the warnings already are beyond the five-year deadline. The Interior Department warnings are a clear indication that agency officials think the delay are for insufficient reasons.

The department's efforts to step up production on federal leases are an unusual turnabout from past policy. The department has been criticized because it has been lax in pushing for maximum production.

Moreover, some in Congress have alleged that gas producers might be holding back on production in anticipation of significant price boosts if Congress approves a Ford administration proposal to end FPC regulation of gas that is newly discovered or newly dedicated to interstate commerce. The proposal is intended to encourage greater exploration and production.

In San Francisco, a spokesman for California Standard acknowledged that the company was questioned in January by the Interior Department about lack of development of several leases. "We have responded . . . in detail. In our view we have very legitimate reasons for delaying development of all leases in ques-

tion. Standard expressed the conviction that its procedure was entirely in accord with the law and so informed the Interior Department in late January."

Mr. BARDIN. Turning back to my statement—

Senator BARTLETT. Thank you very much.

Senator METCALF. I want to thank my friend from Oklahoma. I think he contributed to this dialog, to the hearing.

Were you a bureaucrat?

Mr. BARDIN. I was one of those bureaucrats.

Senator METCALF. It was nice of an old bureaucrat up here to testify about the bureaucracy.

Go ahead.

Mr. BARDIN. Our third point was that a Federal exploration role should complement the role of private sector.

Exclusive reliance on the private sector to conduct or to contract for exploration also delays the broadening of our resource base. The private sector has to make judgments in terms of the needs and opportunities for private stockholders, and the Federal Government doesn't necessarily have to base its judgments and investments on exactly the same factors.

In our judgment new legislation should provide for comprehensive exploration programs—including exploratory drilling—of the Federal Government in concert with continued exploratory activities by the private sector. The legislation should distinguish between the search for oil and gas and the commercial exploitation, including both development drilling and production, of the deposits that Federal exploration discovers. Both S. 426 and S. 740 contain the essential elements for such Federal exploration programs. The latter bill is more explicit, section 202, and the latter bill in section 404 contains a detailed reporting mechanism by which it would—the executive branch would have to go back to the Congress with what are the alternative means of exploring. As I have suggested before, and I think there is every reason to believe, the exploitation decisions could very properly distinguish between oil company exploitation of oil deposits, or predominately oil deposits, and gas company or some gas-oriented entity exploitation of natural gas fields. It would certainly avoid a great deal of the suspicion and friction remarked in the Wall Street Journal article I submitted.

Senator METCALF. I concur with Senator Bartlett that our regulation of natural gas has continued to encourage use of natural gas in ways in which it is uneconomical. For instance, out in the State of Montana we burn natural gas under the boilers at Anaconda and Great Falls. Yet, we are adjacent to one of the largest coal fields in America. Do we have to have legislation to set up some priorities so that we can only burn natural gas under the residential heating requirements, and require these large companies to use some alternate source of fuels, such as coal in Montana, or increase the price of natural gas so that they would be competitive in the industrial areas?

Mr. BARDIN. I think we should move in the direction of such legislation, Senator Metcalf.

Senator METCALF. Do we have to have legislation?

Mr. BARDIN. I think you could do it by—you might be able to do it by administrative action. I would hope you would do it by some sort of tax legislation or other congressionally stated policy which went right

to the boiler fuel use. I don't see any reason why you have to give a windfall to the producer or transporter of natural gas in order to discourage wasteful uses of natural gas.

In that connection, let me mention something about the intrastate market. Despite all that has been said about the higher prices, the fact remains that a good deal of natural gas is being used as boiler fuel in the intrastate natural gas markets. And, indeed, from the point of view of my constituents and the industries in New Jersey, that are suffering because of curtailment at our end of the pipeline, processed gas and nonoil fuel gas, it seems ludicrous that we continue a policy by which the intrastate market is able to sell natural gas for powerplant use.

I personally recall some of the new plants built in Texas and Louisiana in the decade of the 1950's were deliberately placed on rivers, waterways, with abundant land set aside for barging docks and coal pile sites on the theory that ultimately that facility would be converted to coal.

Now, the policy that we should be aiming at in a reasonable period of time is through taxation or regulation to switch those powerplants from natural gas to coal where it can be done, in an environmentally acceptable way, and a technically acceptable way, and I suggest to you there are places in the natural gas producing areas where that is possible. I think we have to be careful in a time of recession that we don't take any precipitous moves which will undermine the health of an economy at a time of great unemployment, great suffering, that we know what we are doing and not plunge without forethought. But with forethought I would very definitely feel we ought to move in that direction.

Senator METCALF. I interrupted your remaining point.

Mr. BARDIN. That was an important point to make.

Senator METCALF. Yes. I think that was one of the points Senator Bartlett was making, that by continued regulation we are encouraging maybe not uneconomic use, but at least uses of natural gas that are not in accordance with the best procedures for saving a very scarce and very valuable fuel.

Mr. BARDIN. As you know, I worked for 11 years with the Federal Power Commission, and I would be the first to agree with you from your standpoint and Senator Bartlett's, that our present natural gas legislation is unsatisfactory. I think our solution would be different from Senator Bartlett's, but as I mentioned, there is another committee in session today that will, hopefully, come up with the right solution.

Senator METCALF. Thank you for departing from your text.

Mr. BARDIN. Four, we believe that a well-designed and adequately funded environmental baseline and monitoring should be conducted throughout the period of both exploration and development.

This is basically self-explanatory, but two points are worth noting. First, both S. 426 and S. 521 outline the content of the off-shore portion of such studies, including explicit mention of "time-series data and trend information"; in addition, S. 426 also explicitly includes the coastal zone in the study program. We believe the importance of both the near-shore region and the land-use impacts in a broad coastal zone should be explicitly recognized in the final legislation. Second,

and even more important, in my view, the scientific validity and utility of these studies will not be jeopardized if they are begun simultaneously with an exploration program. In other words, to avoid needless delay, it is not necessary to wait a first benchmark/baseline study is done before beginning exploration.

Again, we see that the division of exploration, from the divisions as to production, is a device which will accelerate, as Congressman Murphy correctly stated, rather than retard the development of these resources.

Five. Appropriate provisions must be included to compensate individuals and institutions damaged or impacted by any oil and gas activities, including the State and local governments.

There are several potentialities for such compensation. First, recognizing that oil spills are inevitable from Continental Shelf activity, it is mandatory that funds be available to defray the costs of the clean-up. Second, a large no-fault liability fund is essential to compensate persons, businesses, and governments for direct and consequential damages, including damages to the environment, due to such major catastrophes; access to this fund, particularly for small entrepreneurs should be made as easy as possible. Finally, local and State governments should be compensated, under a properly designed statutory formula, for the net costs borne by them in providing the infrastructure demanded by on-shore facilities related to and supporting offshore operations. Compensation should be made when the impacts occur, not at some later or earlier stage when revenues from nearby commercial leases happen to accrue to the Federal Government. Please note also, if we undertake a program of exploration by the Federal Government, the liability of the Federal Government in case of oil spills should be just the same and on the same no fault basis as the liability of a private entrepreneur.

Senator METCALF. You are saying we should establish a fund, when you say not later or earlier, you are saying it is inadequate to say we will pay so much money into a compensation fund when the spill might occur right at the time the fund was started. That is when the damage would occur.

Mr. BARDIN. I must say, Senator Metcalf, we have had some concern about the whole fund question. We have discussed that with the staff of the Interior Committee. We are talking about impacts, and not planning.

Senator METCALF. I am talking about damages.

Mr. BARDIN. On the planning we certainly feel we ought to secure the money right away and should not wait, because you want us to plan right away, we want to plan right away. Our county governments want to participate; we have the same situation in the State where our local municipalities want to plan right away. But on the impact money, we have discussed, for example, which should be the maximum dollar amount per incident. Last year it was \$200 million—

Senator METCALF. \$100 million for damages.

Mr. BARDIN. The fund was \$100 million. In Senator Case's bill this year it goes up to \$500 million. One of our problems is that our tourism industry is a \$2 billion a year activity. It is concentrated in the summer season. Conceivably a massive oil spill around July 4, the beginning of the season, could wreck hundreds of millions of dollars worth of

damages. One of the questions in our mind is do you really have to have dollar limits here? Do you have to tie the fund to so many cents per barrel. We are talking about a program which is running into billions of dollars of revenue for the Federal Government today. And we are talking about a program which is supposed to cut into the \$25 billion a year outflow for foreign oil, so we wonder whether this isn't an area where the Federal Government would not simply want to pick up the liability with the right to go back against the owner of the lease, the owner of the well, or the owner of the barge or tanker, or whatever it might be, from which the oil spilled.

In any event, we are looking for a real indemnification which would be available when, as, and if the damage occurs, and not tied to some lawyer's vagaries about how we handle the flow of money in and out of the fund. We want real compensation. I think that is fair. We want this for the people who are going to take the risk. The principle will be to identify the risk, decide whether it is worth taking, minimize the risk by regulations which we all agree on, regulations of operations at the platform. Secretary Morton and we see eye to eye on that.

Having minimized the risk and exposing people on shore to a residual risk, we want to be sure at the very least, if that accident takes place they will be fully and promptly compensated. I think our Federal Government owes that to them.

Finally, point 7, Federal programs for the Continental Shelf should be designed and conducted with the full participation of all relevant Federal, State, and local agencies as well as other segments of the public and private sectors.

The lack of such participation to date has contributed to the delays in the current leasing program. Legislation should not only mandate consultation as a matter of policy, but also identify specific avenues for effective participation.

As an example, we suggest that your legislation require the creation of an advisory board for each region, for example, the Baltimore Canyon Trough, composed of the Governors or their designees and other public representatives together with all of the relevant Federal agencies. Such boards should be actively involved in all stages of Continental Shelf energy resource development. They should be adequately funded and staffed, thinking of a small staff, perhaps a general counsel, executive director, some clerical help, some Federal funding of \$150,000 or \$200,000 per year per board. Not only should these boards be kept fully informed and be regularly consulted by Federal and private sources during the leasing, exploration, and development stages, but they should also be authorized to hold regular public hearings and submit reports representing regional concerns. The statute should invalidate decisions made without effective consultation and sharing of knowledge throughout the planning process. Decision-making should actually involve all of the interested agencies and levels of government. If there are dissenting views these should be published at the time of the decision, together with the majority views.

From the State point of view, the key is early participation and full consultation rather than review after all the planning is complete. I say this even if the review power carries a chance for the Gov-

error to delay something for months or years. Even if it gives him a veto.

There is an opportunity to give States a real participatory role within a shorter timeframe than the bills now provide. You have an opportunity to streamline the bill and we want to work with your staffs on this from the point of view of getting a decision made, while giving the States and citizens back home a greater meaningful voice written into the statute. I say that because the basis of my experience with the Federal Power Commission at least you tend to have a diversity of views and a variety of interests recommended in the five-man agency. This does mean a certain kind of access to State and regional views you may not have in a one-man agency. I also emphasize that the suggestion of a regional board which includes the various Federal agencies, and not just one Federal agency, whichever one it might be, is intended to overcome some of the virtually inherent parochialism that you run into in the way a Federal agency operates when it feels it has the exclusive responsibility for manning a program, subject only to what the President and the OMB might direct it.

We are separately providing more detailed suggestions to perfect the bills now before you.

We deeply appreciate the opportunity to share with you our views on these important matters.

Senator METCALF. It would be most helpful to get that material or more detailed criticisms and comments on the bills. If you will recall last year we only had one. This year we have a proliferation of bills. You have outlined some of them. Of course, they are all before the committee. Some had one approach, and some had another. Hopefully, and I am sure I can say more than hopefully, we will get some sort of a bill, a combination of those bills, out of here and shortly. I mean shortly in the sense that it is more timely than the way that the Secretary of Interior said in his testimony last year.

So it will be helpful for you—with your experience with the Federal Power Commission—to compare and make suggestions of the specific amendments.

Mr. BARDIN. We would be happy to. Last year the Senate proved it was possible to legislate in this sacrosanct area. We are counting on you to finish the job.

Senator METCALF. Senator Weicker.

Senator WEICKER. No questions.

Senator METCALF. I enjoyed having the dialog with you while we went ahead, so I have no questions either. Thank Governor Byrne for sending you down. We are delighted to have you as his representative.

Mr. BARDIN. Thank you.

Senator METCALF. Our next witness is Guy Martin, Commissioner of Natural Resources, State of Alaska.

I understand you are the new commissioner of natural resources. Congratulations, you go all the way across the country to another frontier area when we go up to Alaska on the Outer Continental Shelf. We are looking forward to your testimony. We are very pleased that Governor Hammond of Alaska sent you down.

STATEMENT OF GUY MARTIN, COMMISSIONER OF NATURAL RESOURCES, STATE OF ALASKA, ON BEHALF OF GOV. JAY HAMMOND, STATE OF ALASKA

Mr. MARTIN. Thank you very much. I do want to express first of all our thanks for an opportunity to testify. This is the Governor's statement which I will be highlighting, and it is that reason we had hoped that Governor Hammond would be able to be here himself. He has expressed on numerous occasions that the Outer Continental Shelf program and the legislation Congress is now considering is his No. 1 priority in the State at this time and will remain so until it is resolved. It was with some disappointment he found he would be unable to be here.

Before beginning I would like to say in view of the excellent testimony given by my friend and colleague, David Bardin, that we share very strongly the recommendations on this program, the resolutions passed by the National Governors Conference. I want to offer my comments totally to the spirit of cooperation with our sister States.

From the very beginning of the development of this issue it has been my observation that these States share problems, and although the impact falls differently on different States, the problems are common. As a member with Mr. Bardin on the Outer Continental Shelf Advisory Board, I have witnessed for the same period of time he has a virtual cavalcade of problems connected with the acceleration of Outer Continental Shelf leasing program, mostly in the fact that States are informed far too late to have any meaningful participation in the planning or preparation of the leasing programs. So although our remarks are generally related to the State of Alaska, of course, the place in which we are able to help you the most, we would like to offer them in the spirit of cooperation with our sister States.

Mr. Chairman, the State of Alaska welcome the opportunity to express its views on the various bills designed to amend the Outer Continental Shelf Lands Act and the Coastal Zone Management Act of 1972. We in Alaska are virtually concerned about the Department of Interior's accelerated leasing program. Our concerns rest in several major areas:

First, we have been provided with negligible information and, often, misinformation from the Department about the program.

Second, we have been effectively separated from any significant step in the Government's decisionmaking process.

Third, Alaska, according to the President's Council on Environmental Quality, is the area of the Outer Continental Shelf presenting the highest environmental risk for oil development, yet it is at the top of Interior's list.

Fourth, Alaska's coastal communities are undeveloped and, for the most part, not prepared for the coastal impact which OCS development will visit upon us.

Fifth, we do not yet have a coastal zone management program which will enable us to manage our coastal zone for onshore OCS development.

Sixth, no criteria has been established to determine which areas of the OCS should be excluded from leasing because of extremely high renewable resource values. Some of Alaska's waters contain the most productive fish and wildlife habitat anywhere in the world.

And last, we do not have the financial resources to plan for and implement programs to mitigate the social, economic, and environmental stresses which OCS will place on us. At this point, we do not even know the magnitude of the undertaking which will be necessary.

The bills which your committees are considering today reflect a growing congressional awareness of the need for significant revision of the Outer Continental Shelf Lands Act and the Coastal Zone Management Act. The Alaskan experience with the Department of Interior's accelerated leasing program underscores the necessity of congressional revision of the entire OCS decisionmaking process. Under the present OCS Lands Act, the Department possesses broad discretion in shaping a program which may have a devastating impact on the environment and economy of all affected coastal States. The result is that program benefits, as they affect both the Nation and the coastal States, have been poorly conceived, and program costs inadequately considered. Optimum-quality decisions are seldom reached, because decisionmaking criteria either do not exist, or are of such a general character that the slightest political pressure may compel their avoidance or abandonment.

Alaskans have only recently come to realize the magnitude and inevitability of the Department's single-purpose concept of resource management on the Outer Continental Shelf. Former President Nixon, and the Department itself, frequently stressed that a decision on Gulf of Alaska drilling would be conditioned on the results of a pending environmental study by the President's Council on Environmental Quality.

Subsequent events revealed the ephemeral nature of the Department's announced policy for Alaskan waters. Some 7 months after the CEQ report concluded that the northeastern Gulf of Alaska presented the highest risks to oil and gas development of any frontier area of the Nation, the Department scheduled the northeastern Gulf for 1975 leasing. The CEQ report's overall policy recommendations, and its factual findings on the Gulf of Alaska, inevitably led those with even minimal environmental concern to realize the problems of proceeding with early leasing in the Gulf of Alaska.

The National Academy of Sciences and the Environmental Protection Agency have asked the Department to heed its prior commitments to the CEQ report and to postpone a decision on Gulf leasing for several years. Nonetheless, subsequent to the release of the unfavorable findings of the CEQ report, the Gulf, instead of receiving low priority, is placed at the top of the list.

Alaskans wonder whether any decisionmaking criteria within the Department actually exist. We only hear a goal, whether 10 million acres, or some smaller figure. And even the stated goals change too rapidly for us to keep up. The State's former Washington counsel uncovered the Department memo which formulated the goal of leasing 10 million acres. No sooner was the disclosure made that it was denied

by the Department. The warnings of CEQ and others are shunted aside in order to efficiently fill quotas.

Quota filling requires insensitivity to environmental risks and social and economic costs. Alaska's unfortunate past silence—caused in part by our reliance on the CEQ report—has admittedly given Alaskan waters an aura of expediency. Since litigation prevents quotas from being filled elsewhere, planning schedules are amended, and Alaska—quiet Alaska—finds itself at the top of the list.

Some time ago, we in Alaska ended our period of silence. In every forum, we have repeated our position: The oil industry is not ready to drill safely off our shores, and we are not ready to bear the myriad of environmental, social, and economic costs which OCS development will visit upon us. And our opposition is not blind opposition to the energy needs of the Nation. We merely want a voice in shaping a program which will have immense effects on our State. We offer help, we offer cooperation, and we have the knowledge and expertise available to render assistance, but as an integral part of an important joint venture.

Alaska's unmistakable position of concern has had its impacts, for with the loss of Alaska as the last painless outlet for the program, the political nature of the Department's decisionmaking process has undergone some redirection. For example, the size of the offering in the gulf has been reduced from 3 million acres to 1.8 million acres, but the leases will still be in the highest risk area of the OCS nationwide and the size of the lease area is still immense on any scale. The Department is also reappraising its views on revenue sharing, not out of a basic belief in its inequities—their past opposition to such a program has been too unequivocal to credit their reversal to such an awakening—rather, the Department's revenue sharing proposal is understood by us as the quid pro quo for State complacency over concerns which transcend pure economics.

In sum, the history of the present OCS program follows the path of at least resistance—even if that path leads to undesirable decisions. Explicit decisionmaking criteria, reflecting a fair balance between environmental protection and national energy needs, must be established by statute. In short, we believe legislation is essential in this Congress to guide this program.

The State of Alaska's concerns over the current leasing program go beyond the framework of the Federal process itself. The immense social, environmental, and economic costs of OCS development to adjoining coastal States are well documented. But until quite recently, involvement by the State of Alaska has not been requested in any significant step in the decisionmaking process.

For example, the National Ocean Policy Study group has noted a general lack of familiarity within the Department with the Coastal Zone Management Act of 1972, yet there has been no coordination by BLM and USGS with our State's coastal zone management effort. Calls for nominations have been held in the Bering Sea and the Gulf of Alaska without any prior consultation or coordination with key State officials. The State was given no role in the joint preparation by USGS and industry of draft operating orders for the Gulf of Alaska—despite a specific promise by USGS to the House Committee on Government Operations that it would cease its practice of prepar-

ing operating orders in consultation with industry prior to publication in the Federal Register.

Indeed, despite a formal request by the State under the Freedom of Information Act, the State has still not been supplied with early drafts of OCS orders which we believe industry reviewed and amended before publication for public review and comment. State assistance in the identification of areas for potential inclusion in the marine and estuarine sanctuaries systems has not been solicited. Information on the extent of onshore development—a seeming prerequisite to sound State planning—has not been provided. The State is willing to help if just given a chance.

Finally, if I can add a further note in this long series of points, I might add that I personally take credit for intercepting the 10-million-acre Department of Interior memorandum last year which was denied up to the very day it was finally revealed.

These seven or eight points, Mr. Chairman, serve to make it quite clear to us that there is a drastic need for legislation at this point and it is our belief that virtually every one of the points I have outlined here has been shared to one extent or another by most of the coastal States now exposed to the leasing program.

The unstructured pattern of the Department's decisionmaking, and the unwillingness of the Department to accept the State as a managerial partner in OCS operations, have cast upon us a great sense of frustration in dealing with the accelerated leasing program—a feeling aggravated by a perceived inevitability.

It is with this past experience that Alaska views the proposed legislation. The State of Alaska strongly feels that it should have the maximum degree of participation feasible in the Alaska OCS leasing program. The ultimate success of the program depends on State cooperation. Granted, OCS leasing occurs on Federal lands, but its effects are far reaching. Taking the oil out of the ground is only a single step and not even the first in a vast, complex scenario. For example, the short property in Yakutat, located in the northeast Gulf of Alaska, is rapidly being purchased by oil companies for onshore support centers. The onshore activity, rig construction, camps, community infrastructure, transportation and pipeline networks, and concomitant socioeconomic stresses resulting from the program will, in the long run, produce far more important effects than drilling on the shelf itself. For these reasons, we must be consulted, our advice must be sought, our voice must trigger decisionmaking criteria at each step and every level of OCS activity. Both major bills offer new measures of State participation.

One of the bills states, as one of its purposes, to: "Assure that coastal States which are directly impacted by exploration and development of oil and natural gas adjacent to their coastal zones are provided an opportunity to participate in policy and planning decisions relating to management of the resources in the Outer Continental Shelf."

This laudable purpose needs support by strong implementing provisions. In this regard, S. 426 provides for consultation during development of the exploratory program "with State and local governments within the coastal States and adjacent coastal States which would be affected by subsequent leasing and development of the proposed area or region."

Further, S. 426 requires that the leasing program be based upon, among other things, the "laws, goals, and policies of the affected coastal States and adjacent coastal States." This coupling of early consultation with consideration of the laws, goals, and policies of the affected States will go far toward achieving the type of partnership that we seek.

But let us not stop there. In a later section of this statement, we urge the study of new resource management mechanisms to develop new, creative ways to manage this resource. Studies could include mechanisms such as joint management boards which would give coastal States continued input, and thus achieve cooperation and coordination in the OCS effort.

By being included, there are many ways in which States can help. Section 20(b) of S. 521, for example, provides for a healthy degree of Federal coordination in the development of OCS safety regulations. However, the affected States will often have a better knowledge of the qualities and sensitivities of the receiving waters of the Outer Continental Shelf, and can thus provide an invaluable source of input into shaping truly sufficient OCS regulations for areas off their coast. Studies have suggested potentially serious effects of even low levels of pollutants on Alaska's immense anadromous fish, as well as its crab and shellfish, resources. Giving the Alaska Departments of Natural Resources, Fish and Game, and Environmental Conservation a meaningful role in developing OCS orders for Alaskan operations will not only result in enhanced effectiveness of those regulations, but will also help to allay some of the great fears of coastal States over the traditionally lax substance and enforcement of OCS operating orders.

To summarize, we should be involved closely, at every level of decisionmaking, to help, to work together, to eliminate conflicts, and to point out ways to improve. At this point we are not asking for a binding say in the decisionmaking processes. We are confident that if we are consulted on an ongoing basis, our concerns will be addressed. If we are wrong in this, however, we will be back asking Congress for greater authority.

Closely allied to the issue of State participation is the problem of lack of decisionmaking criteria in the present act. In this regard, Alaska is most concerned with including criteria which recognize that there is more at stake than achieving energy independence at any cost or finding a new, easy source of Federal revenues. We must, at the same time, protect our coastal zone, our offshore areas, and the social-economic fabric of the coastal States.

We feel that both of the major bills make good attempts at correcting this defect. In particular, we urge passage of criteria which allow consideration of the economic, social, and environmental values of the renewable and nonrenewable resources of the shelf and coastal zone. We urge passage of criteria which base development upon proximity to regional and national energy markets. We urge passage of criteria which are keyed into the laws, goals, and policies of the affected coastal States. And, of course, we wholeheartedly endorse criteria which consider the degree of environmental risk in setting priorities.

On the subject of criteria, a major criticism that we have regarding the present bills is that underlying them is the assumption that all

OCS regions will be developed, sooner or later, for oil and gas. It is true that environmental conditions are set on the extraction processes, but that does not go far enough, in our view. There must be a recognition in the bills, as a policy, as a purpose, and by substantive provisions, that there are areas of the OCS where resources other than oil and gas have higher value in the long run to the Nation, or that certain OCS areas may have to be set aside because technology cannot safely exploit them. In the former category, we feel Bristol Bay and the Bering Sea should be considered. Their waters contain some of the most productive fish and wildlife resources in the world. In the latter category, the northeast Gulf of Alaska, ranked by the President's Council on Environmental Quality as the highest risk area of all OCS regions, should be considered.

If I can add a note, former Secretaries Udall and Hickel both made the comment that Bristol Bay should not be an area exposed to oil and gas exploration. We look forward to a similar comment, although we do not expect it, from the present Secretary.

We are not irreversibly committed to these proposals, but who can argue that they are worthy of study.

S. 521 provides that the Secretary shall establish procedures for consideration of nominations "for areas to be offered for lease or to be excluded from leasing . . ." But the concept is then dropped. This notion, that certain areas are too valuable for oil and gas leasing must be elevated to a separate section. The concept that certain valuable areas should be excluded from leasing has received endorsement by the national Governors' conference, and we subscribe to that concept.

We suggest that criteria be established which can identify these critical habitat areas throughout the leasing program. We must recognize that our data-gathering efforts are ongoing, and what may appear to be environmentally acceptable when the call for nominations goes out, may be an environmental disaster according to information analyzed at a later date. Thus, nominations for areas are to be excluded from leasing should be built into all phases of the exploration and development program, and these areas excluded from leasing should receive protective classification.

We endorse the provisions concerning gubernatorial postponement and moratoriums. The postponement provision is very important. Even now, the Department is preparing to lease in the Gulf of Alaska, the highest risk area of the OCS with the least developed environmental information. The postponement provision could provide the coastal States with up to 3 years to get ready. The postponement request can be overruled by the Secretary of Interior, but there is an ultimate appeal, either to Congress or a "National Coastal Resources Appeals Board." Either procedures offers far more input than we presently have and, therefore, we approve either mechanism.

With regard to a "National Coastal Resources Appeals Board," we find the concept interesting, worthy of consideration, but have doubts that the Secretary of Interior can sit on the Board as an impartial judge. Perhaps some representation of coastal States on the Board is also worthy of consideration.

Senator METCALF. Could the representatives of the coastal States sit on the Board as impartial judges? Won't they have the same difficulties?

Mr. MARTIN. I would think that representatives of other coastal States could sit on the Board.

Senator METCALF. Someone on the Board from New Jersey could make a decision about Alaska?

Mr. MARTIN. I would think so; yes.

With regard to the moratorium provisions, this is urgent. The Gulf of Alaska and some other OCS areas are scheduled for early leasing. The State considers action on the moratorium provision, even possibly as a separate bill, urgent in order to achieve the status quo while the present bills are being considered.

In addition to the need for immediate action, we endorse the provision regarding a moratorium on leasing in frontier areas, pending implementation of the oil and gas exploration program. All of the worthwhile provisions in the major bills could very well prove worthless without a moratorium provision.

Separation of exploration and leasing is a new feature of the major bills. While leasing still remains a function of the oil industry, exploration becomes part of the planning process of the Federal Government. This concept is important since it creates several decision points during the program. For example, it may be that after exploration, a promising OCS region turns out to be less valuable for petroleum development than was predicted. We should be able to say "stop" at that point if costs outweigh benefits.

Further, the bills indicate that frontier area leasing plans cannot be implemented until the information obtained during the exploratory phase is fully compiled and analyzed. In the past, the Department of Interior has scheduled areas for leasing prior to full receipt and analysis of needed environmental information. The Federal undertaking should be of sufficient scope to allow an informed projection of regional resource values, petroleum and otherwise, and the information fully disclosed in a draft environmental statement for the study area.

And whether the exploratory effort be conducted pursuant to contract or by the Department itself, it should be mandatory that all exploratory activities be subject to the same Federal pollution laws and standards, OCS operating orders, and stipulations applicable to private industry.

I also note at this point the statement made by Mr. Bardin with regard to the liability being shared by the Federal Government in such a scheme.

In commenting on the proposed alternative leasing systems, we must bear in mind that one can approach this subject from two directions: the first approach asks which systems are in the best interest of the adjacent coastal States; the second approach asks which systems are in the best interest of the Nation as a whole. These two approaches one hopes will coincide but we must recognize also the possibility that they will not.

As a coastal State Governor, Governor Hammond must look behind the different leasing systems and ask in the context of sound energy policy: which systems will yield the least amount of onshore and offshore activity? Which systems will provide the most incentives for fully utilizing each oil field before going on to the next? Which system will provide us with the highest degree of environmental protection?

In this regard, several leasing systems accomplish the purposes mentioned. We feel that the cash bonus bid system with diminishing or sliding royalty, designed to encourage continued production from the lease as the resource is diminished, has considerable merit, both in terms of reducing proliferation of drilling sites, as well as maximizing production.

We also find the "work program" system very intriguing. We understand this to mean that the competition for the lease would be based upon a total proposal which might include such components as maximum utilization of the field, a high degree of safety, and emphasis on environmental considerations. This approach, coupled with royalty or bonus bid measure, would seem to have great promise in high risk frontier areas where incentives should be provided to insure that safety and the human environment receive the maximum feasibility consideration and expenditures.

In conjunction with new leasing systems, we are particularly pleased with the provisions requiring a development plan to be submitted by the lessee which will detail the specific work to be performed, the environmental measures to be taken, and the health and safety standards to be met.

In our search for better leasing systems, let us not forget that research in this area may produce even better alternatives. Certain provisions of S. 521 call for study of alternative bidding systems to promote competition and maximize revenues and production. This section could be expanded so that bidding systems can be devised which foster a variety of interests and values. Then the appropriate bidding system could be varied to reflect values being protected.

Both of the major bills provide for environmental base-line and monitoring studies. The Alaska experience with environmental studies is one of frustration. Base-line studies are being initiated in the gulf and other OCS areas, but the information needed, we are told, will not be available until at least 2 or 3 years after leasing is underway.

Recently, the State was invited by the National Oceanic and Atmospheric Administration to participate in work sessions designed to select research proposals earlier solicited by NOAA. But we were invited at such a late date that it was impossible to restructure the research in any significant way. The proposals reviewed were of the basic scientific research aspects of OCS development, leaving little chance to obtain the type of applied information with the State needs for management. It is in this light that we urge passage of provisions which require gathering environmentally useful information in advance of leasing.

In this regard, S. 426 begins the environmental studies at a point farther back in time, "prior to formulation of the leasing and development plan." S. 521, on the other hand, requires that the studies be made "prior to permitting oil and gas drilling." This could be an important distinction where time is of the essence.

Both of the major bills state a policy "to insure, through improved techniques, maximum precautions and maximum use of the best available technology by well-trained personnel, the safest possible operations in the Outer Continental Shelf." We applaud this policy and hope for its implementation.

But let us go beyond policy statements and the vagueness of best available technology and work for its real implementation. Too often best available technology becomes what industry says is economically feasible for them. It was with disappointment that the recent Coast Guard regulations respecting new tankers carrying oil from Alaska will not require double hulls, even though Congress in 1972 was told by Secretary Morton that they would.

We feel it is imperative to reverse the question and ask, "What is the level of technological capability we need to protect the environment and what technology must be developed to achieve that level?" We suggest abandonment of best available technology in favor of the requirement that technology not be used if it might significantly degrade the environment, regardless of whether it is the best available. Perhaps minimum required technology is a better way to view the question.

Further, periodic state of the art reviews are needed to determine what technology exists. Those reviews and resulting disclosures need implementation into leases and operating orders. We must also ask whether the present state of the art encompasses technology which gives us the level of protection desired.

The bills talk in terms of technological safety, as though technology was the major, even the sole, problem. But we have learned from the President's Council on Environmental Quality that human errors are also responsible for oilspills. We agree with the Council's recommendation "That human factors engineering be employed to the fullest extent in the design of OCS oil and gas equipment" and "that the Department of the Interior establish minimum Federal standards for critical OCS operator personnel and certify or provide for appropriate accreditation of the training program." Human factors engineering and personnel certification should be specifically mentioned in the study as well as the research and development sections of the bills.

We know that laws are only as good as their enforcement. Regular and frequent inspections are a vital part of an enforcement program. The two major bills provide for annual periodic inspections. But to be of value, the periodic inspections must be frequent—no less than every 6 months and unannounced—and the inspectors must receive technical training if they are to know what to look for. Furthermore, the inspections must be thorough. The June 1973 General Accounting Office report to the Conservation and Natural Resources Subcommittee found many inadequacies in the present system. For example, of 50 wells selected at random in the Gulf of Mexico, GAO found that only half had been inspected during drilling operations, and that other important inspection aspects of OCS order No. 8 were not being carried out. We suggest further that the State also be permitted to inspect. We can render valuable help in this area.

An unfortunate result of the OCS program will be oil spills. The President's Council on Environmental Quality has told us that the accidents will happen. In a recent article entitled "Living on a Lifeboat", Garret Hardin defined the word accident as "an event that is certain to happen, though with a low frequency." He says that "a well-run organization prepares for everything that is certain, including

accidents and emergencies. It budgets for them. It saves for them. It expects them * * *"

It is a curious aspect of these times that we are willing to accept oil spills as inevitable, part of the price of getting the oil out. History may be unkind to us in this respect. But if this sacrifice must be made, we must insist on liability provisions which deal thoroughly and rapidly with the damage. In this respect, whatever liability provisions are passed by Congress must accomplish several objectives:

- (1) They must provide for immediate cleanup of oil spills;
- (2) They must be designed to deter the negligent conduct of leaseholders and oil carriers; and
- (3) They must provide the earliest compensation possible for oil spill victims.

We are urgent in asking for the best systems that can be devised. We favor the strict liability provision. Hopefully, where fault need not be proven, payment to the victim will be speedy. While we might prefer that there be no defenses to strict liability, at the same time we recognize that industry cannot guard against acts of war, and they cannot in good faith be required to indemnify the negligence of the United States. We are pleased to see, however, that the fund cannot raise the negligence of the United States as a defense.

We feel that the limits of liability set forth in the proposed amendments do not go far enough. At the National Governors' Conference, held recently in Washington, D.C., the conference supported unlimited liability. We must have the assurance that catastrophic spills will be fully compensated. Alaska's economy is largely tied to her renewable fisheries resource and we cannot risk the unusual spill which exceeds fund limits.

Some of the bills being considered relate to amendments to the Coastal Zone Management Act of 1972. We support these bills. The coastal zone planning programs of the States are important tools to control the social, economic, and environmental impacts of OCS on-shore development. We have been told by the Interior that the accelerated leasing program cannot wait until the States' coastal zone plans are approved. The State asks, "Can we afford not to wait?"

In 1972, Congress in the Coastal Zone Management Act declared that it was the national policy:

To preserve, protect, develop, and where possible to restore or enhance the resources of the Nation's coastal zone for this and succeeding generations to encourage and assist the States to exercise effectively their responsibilities in the coastal zone through the development and implementation of management programs to achieve wise use of the land and water resources of the coastal zone giving full consideration to ecological, cultural, historic, and esthetic values as well as to needs for economic development.

We live now in a time of conflict and we must decide whether rapid oil and gas development is to bury other Federal programs designed to achieve harmony between man's works and nature.

It seems that that is what the proposed amendments to the Coastal Zone Management Act speak to. They are designed to afford the States the time to develop their coastal zone plans, or at least segments of plans, so that the competing interests on the coastal zone are brought into harmony. In 30 years or so, the oil will be used up, but our coastal zone, if we protect it, will keep producing for millenia.

As an alternative to the proposed amendments, the State could, we suppose, pass our own legislation, and seek to frustrate, onshore, all development related to OCS in the coastal zone. But we in Alaska do not want to polarize, to be pushed to the wall, forced into defensive reaction to a program which has such important implications for the Nation. Instead, we prefer to cooperate but in return for our cooperation, our own needs must be considered.

Besides the delay afforded by the bills, S. 586 adds other worthy provisions, such as regional coastal planning and coastal research assistance. The coastal research assistance is designed to encourage studies into the problems of coastal zone management and to provide training programs. This bill also incorporates into the act the important notion that social and economic impacts on the coastal zone are every bit as important to protection of the coastline as are environmental factors.

By this point in the State's testimony, it is apparent that our experience with the Federal OCS program has not been a happy one. It has been too fast, too much, too hidden, and too tardy in its cooperative effort to encourage us to place great trust in its future. While substantial portions of our testimony have been motivated by this lack of trust and our belief that only Congress can act to provide a better system, nowhere is our lack of faith more important to our position than as regards revenue sharing.

Quite frankly, I believe that Alaska shares this feeling with other States who, given an open choice, might prefer to say "no" to OCS development. Realistically, a "no" answer is not an alternative in the broadest sense, for there is a need for the OCS energy resources and there are ways to achieve reasonable development in some areas of the OCS, if done properly.

Every coastal State, every region, will bear the impact of OCS development differently. Scenic New England coasts, the tourist centers of the mid-Atlantic, and the already abused California and Northwest coastal areas will all face the task of adjustment to unprecedented risks and substantial changes in industrial activity. Alaska, of course, believes that the character of the impact it faces will be unique, and it is certain that it will be, yet there is much that can be lost in all States if the revenue problem is not addressed comprehensively in this legislation.

Although it scarcely merits repeating, it is well to note that the issue is not ownership of the OCS or the history of the Submerged Lands Act. The issue is the unpredicted intensity and magnitude of the burden that this unilateral Federal activity will place on coastal States. Measurement of that burden, and its translation into shared revenues from the development activity, is the point at which Alaska's unhappy experience with the existing program meets the need to fix a price tag.

Neither Alaska nor other coastal States are for sale, just as the aboriginal land claims of Alaskan Natives are not for sale. Yet there is a necessity to settle a national interest in formulating a revenue provision that will work in order to protect coastal States from an impact which is sure to come. Although we are learning and planning every day, the pressures of the existing OCS program, or perhaps even the pressure created by this legislation, are virtually certain to overrun our planning and preparation to some extent. Only one thing is cer-

tain to Alaska, and it serves as the basis for our approach to this issue. It is that the level of impact and its costs in any State will be generally proportionate to the level of OCS activity and its returns in that State. From this premise flows my belief that only a revenue provision which dedicates a fixed percentage of OCS revenues to the State off whose shores they are produced can truly provide the protection required.

With this as a basis, coastal States can face a future of changing and accelerating OCS programs, of previously unperceived impacts, and of rising costs, with the assurance that on a basis proportionate to the level of OCS activity, they will be receiving funds. With this as a basis, coastal States, and particularly Alaska, can address the fact that after OCS, they will never be the same.

No OCS program, administrative or legislative, will be acceptable to Alaska absent such a provision. It is the basic insurance necessary for the future. Among presently pending bills, S. 130 best carries out the State position, and we add our support to that bill. Other proposals of the Federal administration have only recently come to our attention, and we will examine those, to submit responses later, with your permission.

Senator METCALF. The record will be kept open for that response.

Mr. MARTIN. A fixed percentage revenue sharing provision addresses many questions without known answers. How much is it worth to live in a small coastal fishing village? What is it worth to live in a State whose population is so small that many people know their legislators and Governor on a first-name basis? How much are the fish and wild-life species worth that use our shores as their home, as food sources, or to rest along the way of their seasonal migrations? What is it worth to lose a vast coastal wilderness? No one can place a price tag on these things.

Of course, we can place a price tag on some effects of OCS development. We know for example that we will have to provide physical facilities and services for the onshore support centers which will sprout along our coast. And, as pipelines and port facilities are built in our State, we will be providing services to the influx of people working on these projects. A high development OCS scenario in Alaska could double our current work force and population in a short period of time. Texas recently completed a study which showed that the costs Texas would incur as a result of OCS would be more than twice anticipated revenues. Texas, of course, has many existing physical facilities and service and transportation networks. Alaska, on the other hand, is in the infant stages of development. Our coastal communities are not equipped to handle OCS development; our existing road network is primitive; our service capabilities, communications, et cetera, are geared to a small population. Unlike other coastal States, OCS in Alaska will mean more than growth, it will mean totally new towns in places where nothing now exists.

For these reasons, we believe two additional provisions should be included in the revenue sections of the bill you pass.

The first would be a provision creating a fund which allows within the limits of its treasury for 100-percent grants to States for the costs of studying, planning for, managing, controlling, and ameliorating the economic, environmental, and social consequences of OCS develop-

ment. This fund, we believe, should be created immediately by appropriation in the amount of \$100 million, and be maintained later by a levy of 5 cents on each barrel of oil. Unlike the fixed percentage provision which, in our view, is addressed directly to the costs of those things which may never be estimated, planned for, or replaced, if lost, this provision addresses itself to the proven and established costs of OCS development.

The areas of predictable impacts are reasonably clear, if the specific needs are not. Among them are transportation and communications systems, a vast range of community services such as education and health care, new ports and harbors, housing, job training, and others. Most of these, be certain, are to be provided in areas either where no community now exists or where tiny towns and villages wait unsuspecting.

Most crucial is the need for planning, which can be easily understood by simply recognizing that it was only last fall that the magnitude of the Federal OCS program became known to anyone outside the administration. Consider the reception of this news in Yakutat, Alaska a town of about 300 on the northeast Gulf of Alaska. Within 1 year of that revelation, Yakutat has become the known base of support for OCS operations in that area. Multiply the impact of that change by the number of lease sales intended for Alaska, and you have a scenario for disaster without adequate planning and financial support for planning. It is to these needs that the fund set out above is addressed.

Finally, the States believe that, to the extent that a fixed percentage revenue provision does not reflect the level of impact on the immediately adjacent State, some recourse should be available to those coastal States where impact exceeds the level of activity or revenues or even noncoastal States where the impact is transported over land. For these situations, we recommend either that a third fund be established or that the second fund be doubled to accommodate applications from States specially impacted. Only at the level of special impact, we believe, should any State be affected by OCS development be required to come as an applicant to the Federal Government for aid, and receive a grant for cause shown. Underlying this, we believe, should be a system of fixed percentage revenues and 100-percent grants for specific needs shown.

This completes our testimony. At this time, let me reiterate Alaska's commitment to a sound Federal energy program and our desire to work with the administration to establish one. It is Congress that Alaska now looks to for correction of the existing OCS structure, and provision of a set of statutory guidelines that will serve us for years to come. There is much more at stake here than energy or dollars. What is at stake here is a quality of life found nowhere else, and well worth making the extra effort to protect.

Senator METCALF. Thank you very much, Mr. Martin. I thank Governor Hammond for sending you here and reading a most helpful and illuminating statement. Thank you for summarizing it. Your statement will be incorporated in the record as if read.

We understand from the Senators from Alaska there is a special problem in Alaska. You have a concern about these leases as they affect State land given to you under the provisions of the Alaskan Statehood

Act, and the Native lands given to the Natives as a result of the Alaska Native lands.

Mr. MARTIN. I am not certain of the comments of the Senators you are referring to. We would assume a State responsibility for the planning for impact and providing for the impact that runs not only to our own land, which will total 103 million acres, as well as the 40 million acres given to Native lands. There will be probably the largest component of privately owned land in any State in the Union in Alaska. It would be our responsibility to deal with both components.

Senator METCALF. I think your two Senators who raised those questions a little bit in the consideration of the Surface Mining Act are very much concerned about the loss of revenue to the State of Alaska and the state of revenue to the Alaskan Natives if we pass this Outer Continental Shelf Act without a special provision for State lands and Alaska Native lands.

Mr. MARTIN. Yes; I understand that point. The State shares in those concerns. I don't think there is any difference of opinion between the present administration and the Senators on that.

Senator METCALF. Thank you very much for coming to us. You made a splendid analysis of the separate bills before us. I want to say that for many years I served as the Senator on the Migratory Bird Commission. As a result of my experience on that Commission I have grown to know the great concern we have for migratory wildlife especially in Alaska. Almost all of our western flyways look to those areas in Alaska. A spill up there might mean a loss of fish and wildlife for a couple of decades, or maybe forever. So we have to be especially concerned. I am glad you brought that up.

Mr. MARTIN. Senator Metcalf, that gives us just one more reason for being pleased you are chairing these hearings, because you are well known to Alaskans over the years as a good friend. I know you share some of the concerns I stressed in my analysis based on your own concerns from the northern Great Plains and similar activity there.

Senator METCALF. I also share the statement that there is a certain value in a marsh population and a hunting and fishing economy, because Montana has a very similar economy to yours in Alaska, although we don't have that vast coastline you have.

Thank you very much for coming down here. Would you thank Governor Hammond for us for his appearance and his very splendid statement.

Mr. MARTIN. Thank you, Mr. Chairman.

Senator METCALF. We go from the largest to the smallest. Our last witness this morning is Mr. Eric Jankel, policy assistant to the Governor of the State of Rhode Island.

STATEMENT OF ERIC JANKEL, POLICY ASSISTANT TO THE GOVERNOR OF RHODE ISLAND, ON BEHALF OF GOV. PHILIP W. NOEL OF RHODE ISLAND

Mr. JANKEL. Thank you, Mr. Chairman.

Senator METCALF. I am informed the Supreme Court has just ruled against the Atlantic coastal States in the lawsuit that was mentioned by Secretary Morton and others in their testimony.

Mr. JANKEL. Did that ruling come this morning, sir?

Senator METCALF. That came this morning.

We are delighted to have you here. You have a prepared statement, on your behalf and on behalf of the Governor of Rhode Island. Please go ahead.

Mr. JANKEL. Governor Noel extends his regrets he could not be here today. He is testifying in Providence, R.I. before the U.S. Railway Association on reorganization of the Penn Central Railroad.

I think I will read verbatim the remarks that he had prepared for this morning. I would like to correct on the title page first of all that the remarks are before the Committee on Commerce and the Interior Committee sitting jointly.

Senator Metcalf, my comments before this committee are addressed to the specific provisions of S. 426, S. 521 and S. 740, but I would also like to speak in more broad terms to the need for new authorization for the exploration and development of the Outer Continental Shelf.

I would preface my remarks by noting that the New England Governors', the Atlantic Coast Governors', and the National Governors' Conference have all adopted resolutions which call for three basic reforms in the approach to OCS oil and gas development:

1. The separation of exploration and development. As you know, the procedure under the present leasing authorization is for a one-step lease. As a New England State Governor, I am vitally concerned about the quantity and type of hydrocarbon on the Georges' Bank. The amount of oil and gas that is available as a resource must be known before a development decision is made.

- (a) So that adequate on-shore planning can take place, and

- (b) So that a rational determination, based upon a national energy policy can be made on the need for developing that resource.

2. The coastal States have a right, which goes beyond the arguments in the pending *United States v. Maine* case, to revenues which are derived from the OCS. There is no question in my mind that the Nation needs OCS oil and gas. New facilities will be essential for the refining of OCS oil if we are to move toward independence from foreign products, which, by the way, New England is particularly susceptible to increases in foreign prices. We have extended our elasticity of demand through the price mechanism in the price year since the Arab oil embargo. So we feel very strongly OCS oil is needed in New England. The Federal Government should make funds available for the impact of these new facilities. Such a funding program could alleviate many of the community development problems that occur when a major energy production facility attempts to locate in a city or town.

3. Planning funds must be made available to the coastal States at a 100 percent funding level so that the Governors can assess land use and environmental problems and design management programs that will regulate OCS development in a rational format.

In all of my discussions with the administration on the Outer Continental Shelf, the question of new legislative authorization has been an issue. There is a basic difference of opinion on this question. The Secretary of the Interior seems to believe that present authorization is adequate while the Atlantic Coast Governors support the congressional efforts to amend or pass a new authorization.

Mr. Chairman, certainly if a major exploration and development program is announced, a comprehensive review of the legislative mandate is in order. In the past 5 years alone, major research has been completed at the Massachusetts Institute of Technology by the Council on Environmental Quality and by the National Ocean Policy Study here in the Senate. A great deal has been learned by experience. The tragic blow-out in the Santa Barbara Channel and the exploration and development of North Sea oil and gas has expanded the body of practical knowledge on undersea exploration and development. It is only appropriate then that the Congress implement both an expanded body of knowledge and a better sense of intergovernmental balance in legislative authorization.

There are several specific points that I would like to offer for the committee's consideration. First, the policy determination to separate exploration and development is hollow unless the procedures for leasing and production reflect an input in the production decision by the adjacent State. Under present leasing procedures, the Interior Department imposes a "maximum efficient rate" for production through production permit. That rate is based upon technical considerations, such as the number of wells in a structure, the number of wells on a platform, et cetera. I would argue that a rate of production could be established, similar to the maximum efficient rate concept, that would enter on-shore capacity to handle the oil, the environmental impact of certain levels of production, and the management capacity of the adjacent State into the equation. Both S. 426 and S. 521 address this point. I would urge the committee to retain State involvement in the production decision as a cornerstone of any new legislation.

Second, the concept of a fund for dealing with the impact of oil spills and gear conflicts is essential. I would note the committee that Rhode Island has an active fishing industry. Recently, deep sea lobster fisherman had over \$150,000 in lobster posts and gear destroyed by Russian fishing vessels. There is presently competition for resources on the Georges' Bank, and it will certainly become more intense if oil is produced on the OCS. The lobstermen are now making claims to the National Marine Fisheries Board for settlement through the State Department by the Soviet Union. The process will take months and these men face bankruptcy. A strict liability fund which could quickly grant settlements in the event of a loss of property as a result of oil spills or gear conflicts due to OCS development would be beneficial in addressing these very real problems.

Finally, planning for OCS development requires an equal commitment to dealing with the subsequent problems. The proposal in both bills for a fund which will address community development problems that will arise from the siting of onshore facilities is important. The planning for OCS development, to which the administration is committed, will identify the problems. The State and local communities will then have the responsibility of dealing with expanded school populations, increased pressures for residential development, and the siting of energy-related facilities. The planning phase must be linked, through a coastal State fund, to the costs of the pressures for development which will occur.

In summary, the National Governors' Conference supports the philosophy that underlies both S. 426 and S. 521. The committee can

best evaluate how policy should be implemented in specific provisions in new authorization. I believe we need that new authorization and we need it before the call for nominations and leasing on the Atlantic Coast.

I would like to thank the committee for the opportunity to speak on these proposals. I know that you will give consideration to my point of view.

Senator METCALF. Thank you for appearing here on your own behalf and on behalf of Governor Noel.

This morning we have had unanimity that despite the contention of the Secretary of Interior, legislation is needed. We have had from the smallest to the largest, from the East to the far Northwest. We have had unanimity that we have to have a fund for the protection of lobster pots in Rhode Island and the wildlife and fishing industry in Bristol Bay. We have had all of you come in with the need for immediate payment and the need for State and local participation.

I think we have had a most significant discussion from the representatives of the various States and their Governors this morning. I am very pleased that you came down here to give us your help and your advice and your counsel.

Thank you very much.

Mr. JANKEL. Thank you for the opportunity to do so.

Senator METCALF. Thank Governor Noel for us.

The committees will adjourn, subject to the call of the Chair.

[Whereupon, at 12:20 p.m., the hearing was adjourned, subject to the call of the Chair.]

OCS LANDS ACT AMENDMENTS AND COASTAL ZONE MANAGEMENT ACT AMENDMENTS

TUESDAY, MARCH 18, 1975

U.S. SENATE,
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
AND THE COMMITTEE ON COMMERCE,
Washington, D.C.

The committees met, pursuant to notice, at 9:30 a.m. in room 3110, Dirksen Office Building, Hon. J. Bennett Johnston, presiding.

Present: Senators Johnston, Metcalf, Stone, Fannin, Hatfield, and McClure.

Also present for Interior Committee; Grenville Garside, special counsel and staff director; Daniel A. Dreyfus, deputy staff director for legislation; William J. Van Ness, chief counsel; James Barnes and Richard Grundy, professional staff for the majority; Harrison Loesch, minority counsel; and David P. Stang, deputy director for the minority; for Commerce Committee; John Hussey, director, NOPS; and Pamela Baldwin, professional staff member.

Senator JOHNSTON. The hearing will come to order.

OPENING STATEMENT OF HON. J. BENNETT JOHNSTON, A U.S. SENATOR FROM THE STATE OF LOUISIANA

We begin today, our third day of hearings on the Outer Continental Shelf legislation. The action of the Supreme Court yesterday highlights and underlines the importance for legislative solutions to this problem, for the need to compensate the States, for the need to adequately protect the State interests without unduly and improperly hindering the search for badly needed energy on the Outer Continental Shelf.

We are pleased to have this morning as our leadoff witness one of the more knowledgeable experts on the problems of oil and gas and energy in this country, the very dynamic Senator from Alaska, Mike Gravel.

STATEMENT OF HON. MIKE GRAVEL, A U.S. SENATOR FROM THE STATE OF ALASKA

Senator GRAVEL. Thank you very much, Mr. Chairman. I would like to approach several thoughts this morning, some dealing directly with the bill you have before you, S. 521, and some other thoughts that can be included in S. 521, and I think should be included in S. 521.

First let me say that I want to commend the committee. I think this is one of the first, probably in my mind the second occasion, where the

Senate would be considering something if this bill comes to the floor that would solve the immediate crisis: That is, increasing the supply of gas and oil now. Most of the legislation that has come before the Congress has either been long term, intermediate term, or totally counterproductive. Fortunately, some of that counterproductive legislation has been the product of this committee.

With respect to these two items, I would like my statement placed in the record as if read, and I would like to just summarize the two basic thoughts that I think are the most important.

One is, I think that the committees are on the right tack with respect to OCS. I would only quarrel, as I did on the floor, in the consideration of this bill last year, with the funding process to the States. I think my colleagues will recall that the committee came out with a Federal fund that would provide grant in aid in States, and the size of the Federal fund was \$200 million. And we all felt, many of us felt, that was the best that could be acquired. Well, we can acquire whatever we want to acquire if reasonable people will understand the problem.

Senator JOHNSTON. I might say, if I may interrupt, that the Senator's amendment made it clear that that limitation was only a 2-year limitation. And after the first 2 years it would have gone up the full 10 percent. I might say in that connection I share the Senator's view that that is not calculated to produce the kind of revenue that would adequately compensate the States, and that it is at least my thinking that we should go to a new formula that would be a more realistic one that would assure States of at least some realistic percentage of the impacts which they are suffering. So we are going to have to increase that amount.

Senator GRAVEL. Well, I would suggest that modicum probably will not be sufficient. I think that the Governors of the various States were aware of this legislation when they met, were aware of what the Congress had done, the Senate had done last year when Senator Jackson accepted my amendment requiring it be 40 cents per barrel, which would have brought the fund from \$200 million to \$2 billion or plus, depending on the production from OCS.

Yet the Governors still oppose the drilling of their coastal States, and for very obvious reasons. They have no confidence they will get the necessary funds from the Federal Government in a grant-in-aid process.

So it would make sense, the Congress has already spoken loud and clear as to the efficacy of revenue-sharing programs. So there is no reason why this whole funding process to the States as a product of revenues from Outer Continental Shelves can't be handled from a revenue-sharing process.

I would recommend to the committee that the committee vector away from what I think to be considered by the States a paltry sum totally shackled to Federal bureaucratic decisionmaking, and that it be on an automatic basis, on a revenue basis. We have done this in general funds coming from the Treasury, we have done it with respect to Federal lands within States, and there is no reason why we can't do it with respect to Federal OCS lands bordering coastal States.

So I would recommend for simplicity not an escalated formula, except something that is already in existence and has had a great deal of weathered experience. That is, the States receive 37.5 percent of the

revenues from offshore drilling, and it go into State coffers on a revenue basis. There is no reason why we can't continue to do it. Why not do it on OCS lands?

I would recommend that to the committee and hope they take that into consideration.

The other recommendation I would make is, of course, we had a sizable colloquy on the floor last year about the nature of the bidding that would be possible, and that the Interior Department had undertaken some experiments as to how bidding would take place. I noticed in the bill there are set up three methods of bidding, and they are very specific. One is various bonus bid with fixed royalty, and second with a fixed net profit share, and third is a variable bonus with a fixed bid.

I would hope the committee would take the liberal position and let the Interior continue to do what it has the authority to do. This limits the authority that the Interior Department has. I would hope we would be more generous in experimentation in this regard. The three methods here—

Senator JOHNSTON. If the Senator would yield, the bill, S. 3221 last year, did not require the use of any particular one. It simply required they use those for experimentation. They then indicated that they would. So, the requirement that they use them in part is still more authority than a requirement because they have the discretion as to when, where, and how much to use them.

Senator GRAVEL. I am reading from my statement, but I don't have the section of the bill. If that is so, if it is not mandatory, then fine. But if it is mandatory, then you have restricted them to these three proposals and what you think are going to happen and what I think are going to happen is not going to happen. They have the habit of following the language of the law, and not what we think is in the law. So I could be wrong, maybe it is not in the bill. But as we presently read it right now, you have three methods of doing it which excludes all other methods. I think that would be a mistake. The three involved do not take into consideration how the entire North Sea was leased. So if it was a way to work the development of the North Sea, certainly it might be the way to work the development of the Gulf of Alaska or New Jersey, or what have you. I would hate to see us limit this dickering process.

I would commend—

Because royalty bid basis may be a very viable basis under which we can do it. I don't know if we have developed any experience on a royalty bid basis which can permit smaller enterprises to get into the bid process.

That would complete my prepared statement which I will submit for the record.

I would like to recommend to the committee for consideration two other items, since they are drafting legislation to deal with increasing our energy supplies. I believe 622, which is the pending business after the recession, has a natural energy reserve, and I would commend in the committee a section of a bill that I have introduced, S. 1112, in title VIII, it has a national energy reserve providing for a 120 day reserve for the quantity of oil that we import. That would be 7 million barrels a day times 120 days, would be the size of the reserve in question. France is moving to this. Germany has a portion

of it. The Scandinavian countries, most of the European countries that had any foresight have set up a similar reserve. It can be above ground, below ground, whichever way technology will permit us to do it. I would only hope this program would be initiated and, of course, the touchstone of this program would be the oil we have in Elk Hills. Of course, the Petroleum Reserve No. 4.

Here, again, I would hope the Interior Committee in the Senate would follow the example of the Subcommittee of Lands of the Interior Committee of the House, to report out legislation that would transfer the petroleum reserves from the Navy to the Department of the Interior where they belong so they can be developed and exploited to the benefit of this great Nation of ours. If this is not the case we are going to see continued dilatoriness, inefficiency, and, at worst, a hoarding of a resource from the American people who so vitally need it.

So I would commend the committee to title X of my bill in that regard.

The other one I would suggest that could tie in with OCS legislation, 1112 is a remote oil and gas discovery act. This is something if we do wipe out the depletion we have to think in terms of incentives. In this regard I have developed an incentive that will not be subsidizing industry. What it will be doing is altering present economics. At the present time we search for oil and gas on a basis of economics not on the basis of geology. Geology is a second consideration. We have been looking where we have roads, waterways, existing pipelines and the like, not where the geology tells us there is a major possibility of it. The only exception to that particular rule was Prudeau Bay, and I can recall in 1956 through 1967 in Alaska saying if they don't find oil up there, they will never be able to get out. They found oil in such quantities it became economic to get it out.

We should design a program where we go for discovery and then see if the economics will then expand into these areas of discovery. How you do it is a very simple process. You tie it into a national energy reserve. You say whenever a person drills for gas and oil and finds in a commercial quantity that would be rated by the Interior Department, the Federal Government would be prepared to buy 50 percent of his rated production on an annual basis. The commencement of that purchase would take 1 year after discovery. Meaning you let the normal market forces come into play for that year's period. If they did not come into play within a year the Government would step in and be prepared to buy on a market basis half of the oil. If we choose to, in a case of emergency to expand to that discovery area, obviously the Government would have its oil pumped out and could put it in a reserve or sell it at market price.

Senator JOHNSTON. When you say to buy half of the oil produced, you would have to actually lift the oil?

Senator GRAVEL. You would leave it in the ground. You rate the production capacity of the well, and based upon that rating you would say it has thus and thus capability of production. And on that basis the Government would turn around and buy half of it. I have limitations in the bill that tie it to 1 year's purchase, all types of triggering mechanisms so we would obviate any possibility of abuse.

Senator JOHNSTON. Wouldn't that have the opposite effect in paying a man to leave his oil in the ground?

Senator GRAVEL. It would not have the opposite effect, because the man cannot get the oil out of the ground. If there is an infrastructure system the Government can mandate the pumping. You would have a hammerhold on them to pump the oil which does not presently exist. Right now you take in some of the desolate areas of Wyoming, Utah, of the Dakotas, Montana, people don't go looking for oil in some of those places because the infrastructural system is not there.

You take Alaska, the only place that independents will go look for oil is either where it has been discovered—and then it is so rich they can't afford it, only the majors can afford it—in the other areas of the State people don't go look for oil because there is no infrastructure system and even if they found it they couldn't get it out.

One of the arguments made for building the Alaska pipeline through Canada was the fact that on the way there there are about 50 oil fields in Canada that have been discovered and are capped. Some people criticize the industry and will say, isn't it terrible that the industry has capped wells, and there is oil there. They are hoarding it for a higher price at some future date.

Obviously people don't understand the maximization process that takes place within American enterprise, as a result of the desire of American management. But what happens in this case is not one of these oil fields is large enough to warrant the economics of building a pipeline down the Mackenzie Delta into Edmundston. So the oil fields go unused.

The fields have already been discovered because of a partnership agreement that exists in Canada. In the United States, we have no agreements, so we could turn around and effect the same thing without going into partnership. If oil is discovered, you buy it. The oil companies could not have a purchaser, income coming in, going to the bank, getting financing, and go drill other wells. So you have a proliferation of the search for oil, drilling of oil and gas wells through this device. All you would be doing by Government is buying the oil you need for your national energy reserve. Since the reserve would have to be available within 120 days, from day one, you would then be able to compute out the infrastructural time elements to bring about delivery on the delivery systems. It is like putting Petroleum 4 into a national reserve is ridiculous because it would take 5 years to market. But putting Elk Hills into a national reserve is good sense, because you could pump the oil out now. It could have been pumped out during the embargo more aggressively than it was.

If we set up a reserve, we can couple it with a joint oil and gas discovery act without giving any tax ripoff to the oil industry, to effect a proliferation of drilling for oil and gas with great efficacy to our economic system.

Senator JOHNSTON. Thank you very much, Senator Gravel. That was, in my judgment, an excellent statement, not only because you delivered it well, but because I agree with it.

Senator GRAVEL. The latter comment has more merit than the former.

Senator JOHNSTON. I will be putting in more legislation later today which will be very close to that which you are promoting today.

Senator GRAVEL. I will leave with you a copy of S. 1112, and a copy of my summary.

Senator JOHNSTON. We will put that in the record verbatim.

[The material referred to above follows:]

94TH CONGRESS
1ST SESSION

S. 1112

IN THE SENATE OF THE UNITED STATES

MARCH 7, 1975

Mr. GRAVEL introduced the following bill; which was read twice and referred to the Committee on Finance

A BILL

To establish an Energy Trust Fund funded by a tax on energy sources, to provide for the development of domestic sources of energy and for the more efficient utilization of energy, and for other purposes.

- 1 *Be it enacted by the Senate and House of Representa-*
 2 *tives of the United States of America in Congress assembled,*
 3 That this Act may be cited as the "Energy Revenue and
 4 Development Act of 1975".

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1 STATEMENT OF POLICY AND PURPOSES

2 SEC. 101. The Congress finds and declares that—

3 (1) It is the policy of the United States to achieve
4 energy independence by 1985 and to reduce progres-
5 sively the dependence of the United States on foreign
6 sources of energy between now and that date.7 (2) The achievement of this goal is essential for
8 the Nation's economic growth, full employment, balance-
9 of-payments equilibrium, and national security.10 (3) Reaction to the energy crisis has created a
11 proliferation of response which has made difficult a satis-
12 factory resolution of such crisis.13 (4) A well-coordinated and defined national energy
14 policy is needed to achieve energy independence by
15 1985. Such a policy must be implemented by a central
16 unified Federal authority which would coordinate and
17 define all energy policies and programs. It is essential
18 that all energy policy be coordinated in one agency
19 and that the overlapping functions of the Energy
20 Research and Development Administration and the
21 Federal Energy Administration be coordinated and
22 merged into a single agency. An independent commis-
23 sion of qualified scientists, engineers, and economists is

1 needed to advise and assist this authority and publicly
2 evaluate its policies and programs.

3 (5) The United States, including its Continental
4 Shelf, has an enormous energy resource base, including
5 an estimated three hundred and forty-six billion barrels
6 of oil; one thousand one hundred and seventy-eight
7 trillion cubic feet of natural gas; three hundred and
8 ninety-four billion tons of coal; one and six-tenths million
9 tons of uranium; and one hundred and eighty-nine billion
10 barrels of oil shale. Rapid development of these massive
11 energy sources is imperative.

12 (6) It is essential to restore a healthy economy
13 with full employment, reduce inflation, and increase
14 output and productivity.

15 (7) It is essential that the United States prevent
16 steep increases in the price of all energy and the per-
17 vasive economic adversities which such increases would
18 entail.

19 (8) Energy supplies must be managed so as to
20 reduce the dependency of the United States on imports
21 consistent with rapid economic recovery, and standby
22 protections must be available against sudden supply
23 curtailments.

24 (9) It is essential that we conserve energy and
25 expand domestic supplies in order to improve our

1 balance of payments and achieve national energy suffi-
2 ciency in a timely and reliable way.

3 (10) While developing fully these resources, the
4 public and private sectors must develop alternative
5 sources of energy including solar energy, wind, geo-
6 thermal energy, ocean thermal gradients, coal gasifi-
7 cation and liquefaction, nuclear fusion, and fission, the
8 conversion of organic materials to energy, and others.

9 (11) Achieving energy independence requires a
10 massive investment of capital and technology over the
11 next decade by both the public and the private sectors
12 in our society.

13 (12) Adequate and assured public financing of
14 research and development programs requires the impo-
15 sition of taxes on energy sources and the appropriation
16 of the revenues from these taxes to a special energy
17 trust fund.

18 (13) The private market must be allowed to
19 operate freely in order to attract capital for the develop-
20 ment of our indigenous energy resources. Accordingly,
21 energy independence requires that price controls be ter-
22 minated on petroleum and petroleum products and
23 natural gas, subject to safeguards to assure that termi-
24 nation of such controls does not result in excessive profits,

6

1 TITLE II—ENERGY TRUST FUND; TAX ON
2 ENERGY SOURCES
3 ENERGY TRUST FUND

4 SEC. 201. (a) ESTABLISHMENT OF TRUST FUND.—

5 There is hereby established in the Treasury of the United
6 States a trust fund to be known as the Energy Trust Fund
7 (hereafter in this section referred to as the “trust fund”).
8 The trust fund shall consist of such amounts as may be
9 appropriated or credited to it as provided in this section.

10 (b) TRANSFER OF AMOUNTS TO TRUST FUND.—

11 (1) IN GENERAL.—There are hereby appropri-
12 ated to the trust fund amounts equivalent to the taxes
13 received in the Treasury under subchapter F of chapter
14 36 of the Internal Revenue Code of 1954, and such
15 rentals, royalties, and other sums directed to be de-
16 posited in the trust fund under sections 9 (c) and (d)
17 of the Outer Continental Shelf Lands Act.

18 (2) METHOD OF TRANSFER.—The amounts ap-
19 propriated by paragraph (1) shall be transferred at
20 least monthly from the general fund of the Treasury
21 to the trust fund on the basis of estimates by the Secre-
22 tary of the Treasury of the amounts referred to in
23 paragraph (1) received in the Treasury. Proper ad-
24 justments shall be made in the amounts subsequently

1 transferred to the extent prior estimates were in excess
2 of or less than the amounts required to be transferred.

3 (c) APPROPRIATION OF ADDITIONAL SUMS.—There
4 are hereby authorized to be appropriated to the trust fund
5 such additional sums as may be required to make expendi-
6 tures referred to in subsection (c) (1) of this section.

7 (d) MANAGEMENT OF THE TRUST FUND.—

8 (1) IN GENERAL.—It shall be the duty of the
9 Secretary of the Treasury to manage the trust fund
10 and (after consultation with the Administrator of Energy
11 Research and Development) to report to the Congress
12 not later than the 31st day of January of each year
13 on the financial condition and the results of the operations
14 of the trust fund during the preceding fiscal year and on
15 its expected condition and operations during each fiscal
16 year thereafter. Such report shall include the recom-
17 mendations of the Administrator of Energy Research
18 and Development as to the amount of revenues needed
19 by the trust fund during the following fiscal year to
20 meet expenditures from the trust fund during such
21 fiscal year. Such report shall be printed as a House
22 document of the session of the Congress to which the
23 report is made.

24 (2) INVESTMENT.—It shall be the duty of the Sec-
25 retary of the Treasury to invest such portion of the

1 trust fund as is not, in his judgment, required to meet
2 current withdrawals. Such investments may be made
3 only in interest-bearing obligations of the United States
4 or in obligations guaranteed as to both principal and
5 interest by the United States. For such purpose such
6 obligations may be acquired (A) on original issue at
7 the issue price, or (B) by purchase of outstanding
8 obligations at the market price. The purposes for which
9 obligations of the United States may be issued under
10 the Second Liberty Bond Act, as amended, as hereby
11 extended to authorize the issuance at par of special
12 obligations exclusively to the trust fund. Such special
13 obligations shall bear interest at a rate equal to the
14 average rate of interest, computed as to the end of the
15 calendar month next preceding the date of such issue,
16 borne by all marketable interest-bearing obligations
17 of the United States then forming a part of the public
18 debt; except that where such average rate is not a
19 multiple of one-eighth of 1 percent, the rate of interest
20 of such special obligations shall be the multiple of one-
21 eighth of 1 percent next lower than such average rate.
22 Such special obligations shall be issued only if the Sec-
23 retary of the Treasury determines that the purchase of
24 other interest-bearing obligations of the United States,
25 or of obligations guaranteed as to both principal and

1 interest by the United States on original issue or at the
2 market price, is not in the public interest.

3 (3) SALE OF OBLIGATIONS.—Any obligation ac-
4 quired by the trust fund (except special obligations is-
5 sued exclusively to the trust fund) may be sold by the
6 Secretary of the Treasury at the market price, and such
7 special obligations may be redeemed at par plus accrued
8 interest.

9 (4) INTEREST AND CERTAIN PROCEEDS.—The in-
10 terest on, and the proceeds from the sale or redemption
11 of, any obligations held in the trust fund shall be credited
12 to and form a part of the trust fund.

13 (c) EXPENDITURES FROM THE TRUST FUND.—

14 ENERGY PROGRAMS.—Amounts in the trust
15 fund shall be available, as provided by appropriation
16 Acts, for making expenditures to carry out the provisions
17 of this Act, and research, development, and
18 demonstration in the field of energy under the Energy
19 Reorganization Act of 1974.

20 TAX ON ENERGY SOURCES

21 SEC. 202. (a) Imposition of Excise Tax on Energy
22 Sources.—Chapter 36 of the Internal Revenue Code of 1954
23 (relating to certain other excise taxes) is amended by adding
24 at the end thereof the following new subchapter:

1 **“Subchapter F—Tax on Energy Sources**

“Sec. 4496. Imposition of taxes.

“Sec. 4497. Definitions; special rules.

“Sec. 4498. Certifications by Administrator of Energy Research and Development.

“Sec. 4499. Cross reference.

2 **“SEC. 4496. IMPOSITION OF TAXES.**

3 “(a) IMPOSITION OF TAXES.—There is hereby imposed,
4 at the rate provided in subsection (b) —

5 “(1) upon the extraction of oil, gas, or coal within
6 the United States, a tax on the Btu content of the oil,
7 gas, or coal,

8 “(2) upon the production of electricity (or other
9 consumable energy) within the United States using any
10 energy source other than oil, gas, or coal, or any product
11 or derivative thereof, a tax on the Btu content equivalent
12 of the energy source, and

13 “(3) upon the importation into the United States
14 of oil, gas, or coal, or any product or derivative thereof,
15 a tax on the Btu content of the oil, gas, coal, product, or
16 derivative.

17 “(b) RATES OF TAX.—The rate of tax referred to in
18 subsection (b), for the one-year period beginning on July 1,
19 1975, per 1,000,000 Btu content (or Btu content equiva-
20 lent), shall be 2 cents, and for each one year period there-
21 after such amount as the Congress shall by law prescribe.

1 “(c) BY WHOM PAID.—The tax imposed by subsection
2 (a) (1) shall be paid by the person who extracts the oil, gas,
3 or coal. The tax imposed by subsection (a) (2) shall be paid
4 by the person who produces the electricity or other con-
5 sumable energy. The tax imposed by subsection (a) (3)
6 shall be paid by the importer.

7 **“SEC. 4497. DEFINITIONS; SPECIAL RULES.**

8 “For purposes of this subchapter—

9 “(a) BTU.—The term ‘Btu’ means the quantity of heat
10 required to raise the temperature of one pound of water one
11 degree Fahrenheit at or near its point of maximum density.

12 “(b) BTU CONTENT.—The Btu content of oil, gas, and
13 coal extracted within the United States, and of oil, gas, and
14 coal, and any product or derivative thereof, imported into the
15 United States, shall be determined on the basis of certifica-
16 tions of the Administrator of Energy Research and Develop-
17 ment under section 4498 (a).

18 “(c) BTU CONTENT EQUIVALENT.—The Btu content
19 equivalent of energy sources of electricity (or other consuma-
20 ble energy) produced within the United States shall be deter-
21 mined on the basis of certifications of the Administrator of
22 Energy Research and Development under section 4498 (b).

23 “(d) UNITED STATES.—The term ‘United States’ has
24 the meaning given to it by section 638 (1)

1 **"SEC. 4498. CERTIFICATIONS BY ADMINISTRATOR OF**
2 **ENERGY RESEARCH AND DEVELOPMENT.**

3 **"(a) FOSSIL FUELS.—**The Administrator of Energy
4 Research and Development shall—

5 **"(1) establish classifications or grades for—**

6 **"(A) oil, gas, and coal extracted within the**
7 **United States, and**

8 **"(B) oil, gas, and coal, and products and deriv-**
9 **atives thereof, imported into the United States, and**

10 **"(2) from time to time, certify to the Secretary or**
11 **his delegate, for purposes of applying the taxes imposed**
12 **by sections 4496 (a) (1) and 4496 (a) (3), the average**
13 **Btu content for each class or grade so established.**

14 **"(b) OTHER ENERGY SOURCES.—**The Administrator
15 of Energy Research and Development shall, from time to
16 time, determine and certify to the Secretary or his delegate,
17 with respect to electricity (or other consumable energy)
18 produced from any source other than oil, gas, or coal, or any
19 product or derivative thereof, the average Btu content of
20 the quantity of oil, gas, or coal which would be required, if
21 used as the energy source, to produce the same number of
22 kilowatts of electricity (or the same number of units of other
23 energy). For purposes of applying the tax imposed by
24 section 4496 (a) (2), the Btu content equivalent of elec-
25 tricity produced in any geographic area shall be based on

1 the fossil fuel energy source predominantly used for the
2 production of electricity in the same geographic area.

3 **"SEC. 4499. CROSS REFERENCE.**

"For penalties and administrative provisions applicable to this subchapter, see subtitle F."

4 (b) **CLERICAL AMENDMENT.**—The table of subchap-
5 ters for chapter 36 of the Internal Revenue Code of 1954 is
6 amended by adding at the end thereof the following new
7 item:

8 **"Subchapter F. Tax on energy sources."**

9 **OUTER CONTINENTAL SHELF REVENUES**

10 **SEC. 203.** (a) Section 9 of the Outer Continental
11 Shelf Lands Act (43 U.S.C. 1338) is amended to read as
12 follows:

13 **"SEC. 9. DISPOSITION OF REVENUES.**—(a) All rentals,
14 royalties, or other sums paid to the Secretary or the Sec-
15 retary of the Navy under or in connection with any lease on
16 the Outer Continental Shelf for the period beginning June
17 5, 1950, and ending with the day preceding the date of the
18 enactment of the Energy Revenue and Development Act of
19 1975 shall be deposited in the Treasury of the United
20 States and credited to the miscellaneous receipts.

21 **"(b)** All rentals, royalties, or other sums paid to the
22 Secretary or the Secretary of the Navy under or in connec-
23 tion with any lease on the Outer Continental Shelf for the

1 period beginning with the date of the enactment of the
2 Energy Revenue and Development Act of 1975 shall be
3 deposited in the Treasury of the United States; and of the
4 amount of the revenues so deposited in each fiscal year which
5 are attributable to that portion of the Outer Continental
6 Shelf adjacent to any State or that portion of the Outer
7 Continental Shelf to which a State by interstate compact has
8 limited itself, 37½ per centum shall be paid by the Secretary
9 of the Treasury to such adjacent State, to be added to its
10 general funds and to be used for what it deems to be in its
11 best interests.

12 “(c) The total of all rentals, royalties, and other sums
13 deposited in the Treasury in any fiscal year pursuant to sub-
14 section (b) which is in excess of (1) amounts paid by the
15 Secretary for such year pursuant to subsection (b) of this
16 section, and (2) the amount credited to the Land and Water
17 Conservation Fund for such year pursuant to section 2 (c)
18 (2) of the Land and Water Conservation Fund Act of 1965,
19 shall be deposited in the Energy Trust Fund established by
20 title II of the Energy Revenue and Development Act of
21 1975.

22 “(d) Any moneys paid to the Secretary or the Secre-
23 tary of the Navy under or in connection with a lease but
24 held in escrow pending the determination of a controversy as

15

1 to whether the lands on account of which such moneys are
2 paid constitute part of the Outer Continental Shelf shall,
3 to the extent that such lands are ultimately determined to
4 constitute said part of the Outer Continental Shelf, be dis-
5 tributed—

6 “(1) in accordance with subsection (a) if paid
7 before the date of the enactment of the Energy Revenue
8 and Development Act of 1975, and

9 “(2) in accordance with subsections (b) and (c)
10 if paid on or after the date of the enactment of the
11 Energy Revenue and Development Act of 1975.”

12 (b) (1) Nothing contained in this section or in the
13 amendments made by this section shall be construed to alter,
14 limit, or modify in any manner any right, claim, or interest of
15 any State in any funds received before the date of the en-
16 actment of this Act and held in escrow pending the deter-
17 mination of any controversy as to whether the submerged
18 lands on account of which such funds are received con-
19 stitute a part of the Outer Continental Shelf.

20 (2) Nothing contained in this section or in the amend-
21 ments made by this section shall be construed to alter, limit,
22 or modify any claim of any State to any right, title, or in-
23 terest in, or jurisdiction over, any submerged lands.

16

1 TITLE III—COMMISSION ON ENERGY

2 TECHNOLOGY ASSESSMENT

3 ESTABLISHMENT OF COMMISSION

4 SEC. 301. (a) There is hereby established the Com-
5 mission on Energy Technology Assessment (hereinafter
6 referred to in this section as the "Commission"), which
7 shall be independent of the executive departments.

8 (b) The Commission shall consist of an Energy Tech-
9 nology Assessment Board (hereinafter referred to in this
10 section as the "Board") which shall formulate and promul-
11 gate the policies of the Commission, and a Commissioner
12 who shall carry out such policies and administer the opera-
13 tions of the Commission. The Commissioner shall be ap-
14 pointed by the President of the United States, with the ad-
15 vice and consent of the Senate.

16 (c) The Board shall consist of twenty-two members as
17 follows:

18 (1) seven members appointed by the President of
19 the United States, with the advice and consent of the
20 Senate, who shall be persons eminent in one or more
21 fields of the physical, biological, or social sciences;

22 (2) seven members appointed by the President of
23 the United States, with the advice and consent of the
24 Senate, who shall be persons eminent in the field of
25 engineering or the field of solar energy, geothermal

1 energy, magnetohydrodynamics, nuclear fusion and
2 fission processes, fuel cells, low head hydroelectric
3 power, use of agricultural products for energy, tidal
4 power, ocean current and thermal gradient power, wind
5 power, automated mining methods and in situ conver-
6 sion of fuels, cryogenic transmission of electric power,
7 electrical energy storage methods, alternatives to internal
8 combustion engines, solvent refined coal, utilization of
9 waste products for fuels, or direct conversion methods;

10 (3) seven members appointed by the President of
11 the United States, with the advice and consent of the
12 Senate, who shall be persons eminent in the field of
13 economics; and

14 (4) the Commissioner, who shall not be a voting
15 member.

16 (d) Members of the Board, including the Commissioner,
17 shall receive basic pay at the rate provided for level II of the
18 Executive Schedule under section 5314 of title 5, United
19 States Code.

20 (e) The Commissioner shall be appointed for a term of
21 ten years. Members of the Board shall be appointed for terms
22 of five years, except that, of the members first appointed
23 (other than the Commissioner), ten shall be appointed for
24 terms of three years, and eleven for terms of five years.
25 Vacancies in the membership of the Board shall not affect

1 the power of the remaining members to execute the functions
2 of the Board and shall be filled in the same manner as in the
3 case of the original appointment. In no case shall any mem-
4 ber of the Board be appointed to a successive term.

5 (f) The Commissioner shall serve as Chairman of the
6 Board. The Deputy Commissioner shall act in the place and
7 stead of the Chairman in the absence of the Chairman.

8 (g) (1) The basic functions of the Commission shall
9 be—

10 (A) to advise, consult with, and make recom-
11 mendations to, the Energy Research and Development
12 Administration (hereinafter in this title referred to as
13 the "Administration"), including matters relating to
14 contracts and other agreements involving research and
15 development;

16 (B) to provide early indications of the probable
17 beneficial and adverse impacts of the applications of
18 technology related to energy;

19 (C) to analyze the quality of research, develop-
20 ment, and demonstration contracted for by the Admin-
21 istration in carrying out its powers, duties, and func-
22 tions, and the Commission is authorized to enter into
23 contracts with individuals, private agencies and entities,
24 educational institutions, and other nongovernmental
25 sources in making such analysis;

1 (D) to establish standards and goals for research,
2 development, and demonstration on a priority basis in
3 accordance with the present and future energy needs
4 of the United States;

5 (E) to engage in studies to evaluate the relative
6 benefits and costs of alternative forms of energy; and

7 (F) to construct and maintain economic models of
8 the energy needs of the United States economy and the
9 alternative means and costs of satisfying such needs cur-
10 rently and during the subsequent five years.

11 (2) In carrying out such functions, the Commission
12 shall—

13 (A) identify existing or probable impacts of tech-
14 nology or technological programs relating to energy;

15 (B) where possible, ascertain cause-and-effect rela-
16 tionships;

17 (C) identify alternative technological methods of
18 implementing specific programs relating to energy;

19 (D) identify alternative programs for achieving
20 requisite goals;

21 (E) make estimates and comparisons of the impacts
22 of alternative methods and programs relating to energy;

23 (F) estimate the economic costs of alternative
24 energy sources and programs when technological devel-
25 opment has been completed;

1 (G) identify the availability of various forms of
2 energy from domestic and foreign sources and their pros-
3 pects as reliable continuous sources of supply in the
4 future;

5 (H) present findings of completed analyses to the
6 Administration, to the appropriate committees of the
7 Congress, and to the public;

8 (I) identify areas where additional research or data
9 collection is required to provide adequate support for
10 the assessments and estimates described in subparagraphs
11 (A) through (H) of this paragraph;

12 (J) from time to time, take such action as may be
13 necessary to keep the public fully informed as to its
14 findings and recommendations in connection with the
15 carrying out of such functions; and

16 (K) undertake such additional associated activities
17 as the Commission may determine necessary, or that the
18 Administration may request.

19 (h) The Board is authorized to sit and act at such places
20 and times as it may determine, and upon a vote of a majority
21 of its members, to require by subpoena or otherwise the at-
22 tendance of such witnesses and the production of such books,
23 papers, and documents, to administer such oaths and affirma-
24 tions, to take such testimony, to procure such printing and
25 binding, and to make such expenditures, as it deems advis-

1 able. The Board may make such rules respecting its organiza-
2 tion and procedures as it deems necessary, except that no
3 recommendation shall be reported from the Board unless a
4 majority of the Board assent. Subpenas may be issued over
5 the signature of the Chairman of the Board or of any voting
6 member designated by him or by the Board, and may be
7 served by such person or persons as may be designated by
8 such Chairman or member. The Chairman of the Board or
9 any voting member thereof may administer oaths or affirma-
10 tions to witnesses.

11 (i) In addition to the powers and duties vested in him
12 by this section, the Commissioner shall exercise such powers
13 and duties as may be delegated to him by the Board.

14 (j) The Commissioner may appoint, with the approval
15 of the Board, a Deputy Commissioner who shall perform
16 such functions as the Commissioner may prescribe and who
17 shall be Acting Commissioner during the absence or in-
18 capacity of the Commissioner or in the event of a vacancy in
19 the office of Commissioner. The Deputy Commissioner shall
20 receive basic pay at the rate provided for level IV of the
21 Executive Schedule under section 5315 of title 5.

22 (k) The Commission shall have the authority, within
23 the limits of available appropriations, to do all things nec-
24 essary to carry out the provisions of this section, including,
25 but without being limited to, the authority to—

1 (1) make full use of competent personnel and or-
2 ganizations outside the Commission, public or private,
3 and form special ad hoc task forces or make other
4 arrangements when appropriate;

5 (2) enter into contracts or other arrangements as
6 may be necessary for the conduct of the work of the
7 Commission with any agency or instrumentality of the
8 United States, with any State, territory, or possession or
9 any political subdivision thereof, or with any person,
10 firm, association, corporation, or educational institution,
11 with or without reimbursement, without performance or
12 other bonds, and without regard to section 5 of title 41;

13 (3) make advance, progress, and other payments
14 which relate to technology assessment in the energy field
15 without regard to the provisions of section 529 of title 31;

16 (4) accept and utilize the services of voluntary and
17 uncompensated personnel necessary for the conduct of
18 the work of the Commission and provide transportation
19 and subsistence as authorized by section 5703 of title
20 5 for persons serving without compensation;

21 (5) acquire by purchase, lease, loan, or gift, and
22 hold and dispose of by sale, lease, or loan, real and per-
23 sonal property of all kinds necessary for or resulting from
24 the exercise of authority granted by this section; and

25 (6) prescribe such rules and regulations as it deems

1 necessary governing the operation and organization of
2 the Commission.

3 (l) Contractors and other parties entering into con-
4 tracts and other arrangements under this section which
5 involve costs to the Government shall maintain such books
6 and related records as will facilitate an effective audit in such
7 detail and in such manner as shall be prescribed by the
8 Office, and such books and records (and related documents
9 and papers) shall be available to the Office and the Comp-
10 troller General of the United States, or any of their duly
11 authorized representatives, for the purpose of audit and
12 examination.

13 (m) The Commission, in carrying out the provisions of
14 this section, shall not, itself, operate any laboratories, pilot
15 plants, or test facilities.

16 (n) The Commission is authorized to secure directly
17 from any executive department or agency information, sug-
18 gestions, estimates, statistics, and technical assistance for the
19 purpose of carrying out its functions under this section.
20 Each such executive department or agency shall furnish
21 the information, suggestions, estimates, statistics, and tech-
22 nical assistance directly to the Commission upon its request.

23 (o) On request of the Commission, the head of any
24 executive department or agency may detail, with or without

1 reimbursement, any of its personnel to assist the Commission
2 in carrying out its functions under this section.

3 (p) The Commissioner shall, in accordance with such
4 policies as the Board shall prescribe, appoint and fix the
5 compensation of such personnel as may be necessary to carry
6 out the provisions of this section, and obtain services of
7 experts and consultants in accordance with section 3109 of
8 title 5, United States Code.

9 (q) The Commission shall submit to the Congress an
10 annual report setting forth actions taken by it during the
11 calendar year preceding such report in carrying out its func-
12 tions under this section, including its expenses with respect
13 thereto. Such report shall be submitted not later than
14 March 15 of each year and shall be available to the public.

15 (r) For the purpose of enabling the Commission to
16 carry out its functions under this title, there is to be appro-
17 priated out of moneys in the trust fund established pursuant
18 to title II of this Act an amount equal to 1 per centum of
19 moneys received by such fund during the preceding year.

20 TITLE IV—RESIDENTIAL ENERGY

21 CONSERVATION INCENTIVES

22 CREDIT OR DEDUCTION FOR RESIDENTIAL ENERGY

23 CONSERVATION EXPENDITURES

24 SEC. 401. (a) Subpart A of part IV of subchapter A
25 of chapter 1 of the Internal Revenue Code of 1954 (relat-

1 ing to credits allowable) is amended by renumbering section
2 42 as 43, and by inserting after section 41 the following
3 new section:

4 **“SEC. 42. RESIDENTIAL ENERGY CONSERVATION EX-**
5 **PENDITURES.**

6 “(a) **GENERAL RULE.**—In the case of an individual,
7 there shall be allowed as a credit against the tax imposed by
8 this chapter for the taxable year an amount equal to 50
9 percent of so much of the residential energy conservation ex-
10 penditures paid or incurred by the taxpayer during the tax-
11 able year as does not exceed \$1,000.

12 “(b) **LIMITATION.**—The credit under subsection (a)
13 for any taxable year shall not exceed the amount of the tax
14 imposed by this chapter for the taxable year, reduced by the
15 sum of the credits allowable under the preceding sections of
16 this subpart (other than sections 31 and 39).

17 “(c) **RESIDENTIAL ENERGY CONSERVATION EXPEND-**
18 **ITURES.**—For purposes of this section, the term ‘residential
19 energy conservation expenditure’ means any expenditure
20 otherwise chargeable to capital account, or any expense, paid
21 or incurred for—

22 “(1) improvements or repairs, designed to reduce
23 heat loss in winter and heat gain in summer, to prop-
24 erty used by the taxpayer as his principal residence, in-
25 cluding the installation of insulation, storm windows

1 and doors, caulking, humidifiers, and other property
2 designed for energy conservation, and

3 “(2) any device or system designed to utilize solar
4 energy or any other source of energy (other than oil,
5 gas, coal, or electricity generated by oil, gas, or coal)
6 to provide heating or cooling which meets performance
7 criteria established by the Energy Research and De-
8 velopment Administration.

9 “(d) ELECTION TO TAKE DEDUCTION IN LIEU OF
10 CREDIT.—This section shall not apply in the case of any tax-
11 payer who for the taxable year elects to take the deduction
12 provided by section 220 (relating to deduction for residential
13 energy conservation expenditures). Such election shall be
14 made in such manner and at such time as the Secretary or his
15 delegate shall prescribe by regulations.

16 “(e) NO ADJUSTMENTS TO BASIS.—Notwithstanding
17 the provisions of section 1016 (a), no adjustment to the basis
18 of property shall be made for any residential energy con-
19 servation expenditure which is taken into account in com-
20 puting the amount of the credit allowed by subsection (a).

21 “(f) REGULATIONS.—The Secretary or his delegate
22 shall prescribe such regulations as may be necessary to carry
23 out the purposes of this section.”

24 (b) Part VII of subchapter B of chapter 1 of such Code
25 (relating to additional itemized deductions for individuals)

1 is amended by renumbering section 220 as 221, and by in-
2 serting after section 219 the following new section:

3 **“SEC. 220. RESIDENTIAL ENERGY CONSERVATION EX-**
4 **PENDITURES.**

5 “(a) ALLOWANCE OF DEDUCTION.—In the case of an
6 individual, there shall be allowed as a deduction so much of
7 the residential energy conservation expenditures (as defined
8 in section 42 (c)) paid or incurred by the taxpayer during
9 the taxable year as does not exceed \$1,000.

10 “(b) ELECTION TO TAKE CREDIT IN LIEU OF DEDUC-
11 TION.—This section shall not apply in the case of any tax-
12 payer who for the taxable year elects to take the credit
13 against tax provided by section 42 (relating to credit against
14 tax for residential energy conservation expenditures). Such
15 election shall be made in such manner and at such time as
16 the Secretary or his delegate shall prescribe by regulations.

17 “(c) NO ADJUSTMENTS TO BASIS.—Notwithstanding
18 the provisions of section 1016 (a), no adjustment to the basis
19 of property shall be made for any residential energy conser-
20 vation expenditure which is allowed as a deduction under
21 subsection (a).

22 “(d) REGULATIONS.—The Secretary or his delegate
23 shall prescribe such regulations as may be necessary to carry
24 out the purposes of this section.”

25 (c) Section 62 of such Code (relating to definition of

1 adjusted gross income) is amended by redesignating the
 2 second paragraph (11) as (12), and by inserting after such
 3 paragraph the following new paragraph:

4 “(13) Residential energy conservation expendi-
 5 tures.—The deduction allowed by section 220.”.

6 (d) The table of sections for subpart A of part IV of
 7 subchapter A of chapter 1 of such Code is amended by
 8 striking out the last item and inserting in lieu thereof the
 9 following:

“Sec. 42. Residential energy conservation expenditures.
 “Sec. 43. Overpayments of tax.”.

10 (e) The table of sections for part VII of subchapter B
 11 of chapter 1 of such Code is amended by striking out the last
 12 item and inserting in lieu thereof the following:

“Sec. 220. Residential energy conservation expenditures.
 “Sec. 221. Cross references.”.

13 (f) The amendments made by this section shall apply
 14 to taxable years ending after the date of the enactment of
 15 this Act.

16 TITLE V—NATURAL GAS DEREGULATION;

17 TERMINATION OF PRICE CONTROLS

18 NATURAL GAS DEREGULATION

19 SEC. 501. (a) Section 1 (b) of the Natural Gas Act is
 20 amended to read as follows:

21 “(b) The provisions of this Act shall apply to the trans-
 22 portation of natural gas in interstate commerce, to the sale in

1 interstate commerce of natural gas for domestic, commercial,
2 industrial, or any other use, and to natural gas companies
3 engaged in such transportation or sale, but shall not apply
4 to any other transportation or sale of natural gas or to the
5 local distribution of natural gas or to the facilities used for
6 such distribution or to the production or gathering of natural
7 gas or to the sale of natural gas dedicated for the first time
8 to interstate commerce or rededicated upon expiration of an
9 existing contract on or after the date of the enactment of the
10 Energy Revenue and Development Act of 1975, or produced
11 from wells commenced on or after such date, for domestic,
12 commercial, industrial, or any other use, by any person,
13 whose principal business is not the transportation of natural
14 gas in interstate commerce.”

15 (b) Section 2 (6) of the Natural Gas Act is amended by
16 striking the last two words and by inserting before the pe-
17 riod at the end thereof a comma and the following: “subject
18 to the exception in section 1 (b) above”.

19 (c) Section 2 of the Natural Gas Act is amended by
20 adding at the end thereof the following new clause:

21 “(10) ‘Affiliate’ of another person means any per-
22 son directly or indirectly controlling, controlled by, or
23 under common control with such other person.”

24 (d) Section 3 of the Natural Gas Act is amended by
25 striking from the first sentence “or import any natural gas

1 from a foreign country” and by striking from the second sen-
2 tence “or importation”.

3 (c) Section 4 (c) of the Natural Gas Act is amended
4 by inserting before the period at the end thereof a colon and
5 the following: “*Provided, however,* That the Commission
6 shall have no power to deny, in whole or in part, that portion
7 of the rates and charges made, demanded, or received by any
8 natural gas company for or in connection with the purchase
9 of natural gas exempt from this Act pursuant to section 1 (b)
10 except to the extent that the rates or charges made, de-
11 manded, or received for natural gas by an affiliate of the pur-
12 chasing natural gas company exceed those made, demanded,
13 or received by persons not affiliated with the purchasing
14 natural gas company: *Provided further,* That the Commis-
15 sion shall have no power to deny, in whole or in part, that
16 portion of the rates or charges made, demanded, or received
17 by any natural gas company for natural gas produced from
18 the properties of that company from wells commenced on or
19 after the date of the enactment of the Energy Revenue and
20 Development Act of 1975, except to the extent that the
21 rates or charges made, demanded, or received exceed those
22 made, demanded, or received for natural gas by persons not
23 affiliated with the purchasing natural gas company.”.

24 (f) Section 5 (a) of the Natural Gas Act is amended by
25 inserting before the period at the end thereof a colon and the

1 following: "*Provided, however,* That the Commission shall
2 have no power to deny, in whole or in part, that portion of
3 the rates and charges made, demanded, or received by any
4 natural gas company for or in connection with the purchase
5 of natural gas exempt from this Act pursuant to section 1 (b) ,
6 except to the extent that the rates or charges made, de-
7 manded, or received for natural gas by an affiliate of the pur-
8 chasing natural gas company exceed those made, demanded,
9 or received by persons not affiliated with the purchasing
10 natural gas company: *And provided further,* That the Com-
11 mission shall have power to deny, in whole or in part, that
12 portion of the rates or charges made, demanded, or received
13 by any natural gas company for natural gas produced from
14 the properties of that company from wells commenced on or
15 after the date of the enactment of the Energy Revenue and
16 Development Act of 1975, except to the extent that the
17 rates or charges made, demanded, or received exceed those
18 made, demanded, or received from natural gas by persons
19 not affiliated with the purchasing natural gas company: *And*
20 *provided further,* That the Commission shall have no power
21 to order a decrease in the rate or charge made, demanded, or
22 received for the sale of natural gas by any person not en-
23 gaged in the transportation of natural gas in interstate com-
24 merce or by any affiliate of such person, if such rate or charge
25 shall have been previously determined to be just and reason-

1 **“CHAPTER 7—TAX ON EXCESSIVE FOSSIL**
2 **FUEL PROFITS**

“Sec. 1601. Imposition of tax.

“Sec. 1602. Credit for reinvestment in domestic areas.

“Sec. 1603. Excess fossil fuel profits income.

“Sec. 1604. Related corporations.

“Sec. 1605. Definitions; special rules; regulations.

3 **“SEC. 1601. IMPOSITION OF TAX.**

4 “There is imposed on the excess fossil fuel profits income
5 of every corporation for any taxable year ending after De-
6 cember 31, 1974, and before January 1, 1980, a tax of 80
7 percent.

8 **“SEC. 1602. CREDIT.**

9 “There is allowed to each corporation liable for the tax
10 imposed by section 1601 for the taxable year, an amount
11 equal to the amount of such corporation’s qualified investment
12 for the taxable year.

13 **“SEC. 1603. EXCESS FOSSIL FUEL PROFITS INCOME.**

14 “For purposes of this chapter, the term ‘excess fossil
15 fuel profits income’ means the amount by which the fossil
16 fuel profits income of a corporation for the taxable year
17 exceeds the larger of—

18 “(1) the average annual fossil fuel profits income
19 of that corporation for the base period; or

20 “(2) an amount equal to an annual return for that

1 taxable year of 15 percent on capital invested by that
2 corporation in fossil fuel industry activities.

3 **“SEC. 1604. RELATED CORPORATIONS.**

4 “(a) RELATED CORPORATIONS.—In the application of
5 the provisions of this chapter to any domestic corporation
6 which owns stock issued by a foreign corporation which has
7 fossil fuel profits income from any source—

8 “(1) the domestic corporation is considered to have
9 fossil fuel profits income from that source in an amount
10 which bears the same ratio to the total amount of the
11 fossil fuel profits income of that foreign corporation as
12 the value of the foreign corporation’s stock held by the
13 domestic corporation bears to the total value of all stock
14 issued by the foreign corporation, and

15 “(2) a foreign corporation (referred to elsewhere in
16 this paragraph as the acquiring corporation) which owns
17 stock issued by another foreign corporation (referred to
18 elsewhere in this paragraph as the issuing corporation)
19 which has fossil fuel profits income from any source is
20 considered to have fossil fuel profits income from that
21 source in an amount which bears the same ratio to the
22 total amount of the fossil fuel profits income of the
23 issuing corporation as the value of the issuing corpora-
24 tion’s stock held by the acquiring corporation bears to
25 the total value of all stock issued by the issuing
26 corporation.

1 “(b) VALUATION RULE.—For purposes of this section,
2 the value of a share of stock is its average fair market value
3 for the taxable year. If the Secretary or his delegate deter-
4 mines that the fair market value of a particular class of stock
5 cannot be ascertained with reasonable certainty, the value of
6 that stock shall be determined in accordance with rules pro-
7 mulgated by the Secretary or his delegate which are designed
8 to reflect fairly, for purposes of this chapter, the ownership
9 interest of the corporation which owns the stock in the corpo-
10 ration which issued the stock.

11 **“SEC. 1605. DEFINITIONS; SPECIAL RULES; REGULATIONS.**

12 “(a) DEFINITIONS.—For purposes of this chapter—

13 “(1) BASE PERIOD.—The term ‘base period’ means,
14 in the case of any corporation, the first four taxable years
15 of that corporation beginning after December 31, 1969.

16 “(2) FOSSIL FUEL INDUSTRY ACTIVITY.—The
17 term ‘fossil fuel industry activity’ means the business of
18 extracting, refining, transporting, distributing, manufac-
19 turing, producing, or selling gas, coal, petroleum, petro-
20 leum products, or products used in connection with the
21 extraction, refining, transportation, distribution, manu-
22 facture, production, or sale of gas, coal, petroleum or
23 petroleum products.

24 “(3) FOSSIL FUEL PROFITS INCOME.—The term

1 'fossil fuel profit income' means the taxable income of a
2 corporation derived from fossil fuel industry activities.

3 " (4) QUALIFIED INVESTMENT.—For purposes of
4 this chapter, any person's qualified investment for any
5 taxable period is the amount paid or incurred by such
6 person during such taxable period (with respect to areas
7 within the United States or a possession of the United
8 States) for—

9 " (A) intangible drilling and development
10 costs, or geological and geophysical costs, described
11 in section 263 (c) ,

12 " (B) the construction, reconstruction, erection,
13 or acquisition of the following items but only if the
14 original use of such items begins with such person :

15 " (i) depreciable assets used for—

16 " (I) the exploration for or the devel-
17 opment or production of coal, oil, or gas
18 (including development or production from
19 oil shale) ,

20 " (II) converting oil shale, coal, or liq-
21 uid hydrocarbons into oil or gas, or

22 " (III) refining oil or gas (but not
23 beyond the primary product stage) ,

24 " (ii) pipelines for gathering or transmit-
25 ting oil or gas, and facilities (such as pumping

1 stations) directly related to the use of such pipe-
2 lines.

3 “(C) secondary or tertiary recovery of oil and
4 gas,

5 “(D) the acquisition of oil and gas leases
6 (other than off-shore oil and gas leases), and

7 “(E) the discovery, development, or utiliza-
8 tion of any other energy source (including amounts
9 paid or incurred for the acquisition of depreciable
10 assets and for the construction, reconstruction, or
11 erection of facilities in connection therewith).

12 “(b) SPECIAL RULES.—

13 “(1) APPLICATION OF RELATED CORPORATION
14 RULES.—The related corporation rules contained in sec-
15 tion 1604 apply to the determination of fossil fuel profits
16 income for the base period and for the taxable year, and
17 to the determination of return on investment.

18 “(2) RETURN ON INVESTMENT.—

19 “(A) IN GENERAL.—For purposes of section
20 1602, return on investment shall be determined by
21 computing the excess of the fossil fuel profits income
22 for the taxable year over the capital investment in
23 fossil fuel industry activities for the taxable year as
24 a percentage of the amount of such capital invest-
25 ment

1 “(B) EXCLUSIONS.—In computing return on
2 investment there shall be excluded from considera-
3 tion—

4 “(i) the excess of any amount allowed as a
5 deduction under section 613 (relating to per-
6 centage depletion) over the amount allowable
7 under section 611 for cost depletion;

8 “(ii) any amounts allowed as a deduction
9 in accordance with the provisions of section 263
10 (c) (relating to intangible drilling and develop-
11 ment costs in the case of oil and gas wells) in
12 connection with any oil or gas well which is
13 commercially productive, as determined by the
14 Secretary or his delegate; and

15 “(iii) with respect to each item of section
16 1250 property (as defined in section 1250 (c)),
17 the amount by which the deduction allowable
18 for the taxable year for exhaustion, wear and
19 tear, obsolescence, or amortization exceeds the
20 depreciation deduction which would have been
21 allowable for the taxable year had the taxpayer
22 depreciated the property under the straight line
23 method for each taxable year of its useful life
24 (determined without regard to section 167 (k))
25 for which the taxpayer has held the property.

1 “(3) CHANGES IN CORPORATION STRUCTURE,
2 VOLUME OF BUSINESS, ETC.—In the application of the
3 provisions of this chapter—

4 “(A) income, expenditures, gains, and
5 losses not related to fossil fuel industry activities
6 shall be disregarded; and

7 “(B) if, for any taxable year, the fossil fuel
8 profits income of a corporation is greater than the
9 average annual fossil fuel profits income of that
10 corporation for the base period as a result of ex-
11 panded volume of products handled, a different type
12 of fossil fuel industry activity than that engaged in
13 by the corporation during the base period, or a dif-
14 ferent combination or proportion of fossil fuel in-
15 dustry activities than those engaged in by that cor-
16 poration during the base period, the corporation
17 may, with the approval of the Secretary or his dele-
18 gate, adjust the annual average base period fossil
19 fuel profits income, or compute the taxable year’s
20 fossil fuel profits income in such a manner as neces-
21 sary, to reflect equitably that part of the fossil fuel
22 profits income for the taxable year which is sub-
23 ject to treatment as excess profits from fossil fuel
24 industry activities as compared to the profits from
25 those activities during the base period. Any approval

1 granted by the Secretary or his delegate under this
2 subparagraph shall be granted after a public hearing
3 conducted in accordance with the provisions of sec-
4 tion 553 of title 5, United States Code, applicable to
5 rulemaking.

6 “(c) REGULATIONS.—The Secretary or his delegate
7 shall prescribe such regulations as may be necessary to carry
8 out the provisions of this chapter.”.

9 (b) Section 11 of the Internal Revenue Code of 1954
10 (relating to tax on corporations) is amended by adding at
11 the end thereof the following new subsection:

12 “(g) TAX NOT TO APPLY TO EXCESS FOSSIL FUEL
13 PROFITS INCOME.—The provisions of this section apply only
14 to so much of the taxable income of a corporation for the
15 taxable year which is excess fossil fuel profits income (as
16 defined in section 1603) of that corporation for that taxable
17 year as equals the amount of the credit claimed under sec-
18 tion 1602 by that corporation for the taxable year.”.

19 (c) TECHNICAL AMENDMENTS.—

20 (1) Section 12 of such Code (relating to cross
21 references relating to tax on corporations) is amended
22 by adding at the end thereof the following new para-
23 graph:

1 “(9) For tax on excess fossil fuel profits income, see
2 chapter 7.”.

3 (2) Section 21 of such Code (relating to effect of
4 changes) is amended by adding at the end thereof the
5 following new subsection:

6 “(f) CHANGES MADE BY THE ENERGY REVENUE AND
7 DEVELOPMENT ACT OF 1975.—In applying subsection (a)
8 to the taxable year of a corporation which is not a calendar
9 year, the tax imposed under section 1601 shall be treated as
10 a change in a rate of tax.”.

11 (3) The table of chapters for subtitle A of such
12 Code is amended by adding at the end thereof the fol-
13 lowing item:

 “CHAPTER 7. TAX ON EXCESSIVE FOSSIL FUEL PROFITS.”.

14 (d) The Secretary of the Treasury or his delegate shall,
15 as soon as practicable but in any event not later than 90 days
16 after the date of the enactment of this Act, submit to the
17 Committee on Ways and Means of the House of Representa-
18 tives a draft of any technical and conforming changes in the
19 Internal Revenue Code of 1954 which are necessary to
20 reflect throughout such Code the changes in the substantive
21 provisions of law made by this Act.

22 (e) The amendments made by this Act apply with
23 respect to taxable years ending after December 31, 1974.

1 TITLE VII—CHANGES IN INCOME TAX DEDUC-
 2 TION ALLOWED FOR PERCENTAGE DEPLETE-
 3 TION OF OIL AND GAS WELLS

4 SEC. 701. (a) Section 613 of the Internal Revenue
 5 Code of 1954 (relating to percentage depletion) is amended
 6 by adding at the end thereof the following new subsection:

7 “(c) LIMITATIONS.—

8 “(1) DENIAL OF PERCENTAGE DEPLETION FOR
 9 FOREIGN OIL AND GAS WELLS.—Subsection (a) does
 10 not apply to any oil or gas well located outside the
 11 United States and its possessions.

12 “(2) LIMITATION OF PERCENTAGE DEPLETION DE-
 13 DUCTION FOR DOMESTIC OIL AND GAS WELLS.—In the
 14 case of a taxpayer who has foreign energy expenses for
 15 any taxable year, the amount of the oil and gas per-
 16 centage depletion deduction for that year shall be an
 17 amount which bears the same ratio to the amount of the
 18 oil and gas percentage depletion deduction determined
 19 without regard to this paragraph as the amount of the
 20 domestic energy expenses of the taxpayer for that year
 21 bears to the sum of the foreign and domestic energy
 22 expenses of the taxpayer for that year.

23 “(3) DEFINITIONS.—For purposes of this subsec-
 24 tion—

25 “(A) ENERGY EXPENSE.—The term ‘energy

1 expense' means any amount (including amounts
2 chargeable to capital account) paid or incurred by
3 the taxpayer for the taxable year in connection with
4 the exploration for, the development of, and the ex-
5 traction, refining, transportation, distribution, manu-
6 facturing, production, or sale of gas, coal, or petro-
7 leum (including petroleum products used for fuel or
8 lubrication).

9 “(B) FOREIGN ENERGY EXPENSE.—The term
10 ‘foreign energy expense’ means an energy expense
11 paid or incurred in connection with property used
12 predominantly outside of the United States and its
13 possessions (other than an asset described in section
14 48 (a) (2) (B) relating to section 38 property used
15 outside the United States), or with activities carried
16 on outside of the United States and its possessions.

17 “(C) DOMESTIC ENERGY EXPENSES.—The
18 term ‘domestic energy expense’ means an energy ex-
19 pense which is not a foreign energy expense (as de-
20 fined in subparagraph (B)).

21 “(D) OIL AND GAS PERCENTAGE DEPLETION
22 DEDUCTION.—The term ‘oil and gas percentage de-
23 pletion deduction’ means the deduction allowed by
24 section 611 and determined under this section with
25 respect to oil and gas wells.

1 “(4) **ATTRIBUTION OF COST.**—Under regulations
2 prescribed by the Secretary or his delegate, a taxpayer
3 who, directly or indirectly—

4 “(A) owns any interest in oil or gas wells with
5 respect to which energy expenses are paid or in-
6 curred, or

7 “(B) owns stock in a corporation which di-
8 rectly or indirectly owns any such interest,
9 shall, for purposes of subsection (b), be treated as having
10 paid or incurred his pro rata share of such energy ex-
11 penses. For purposes of subparagraph (B), the rules of
12 section 318 (relating to constructive ownership of stock)
13 shall apply and, for purposes of subparagraph (A), rules
14 similar to the rules of such section shall apply.

15 “(5) **REPORTING OF COSTS.**—Any taxpayer who
16 claims an oil and gas percentage depletion deduction for
17 a taxable year shall report, at such time and in such
18 manner as the Secretary or his delegate prescribes by
19 regulations, the amount (if any) of his foreign and
20 domestic energy expenses.”.

21 **TITLE VIII—NATIONAL ENERGY RESERVE**

22 **ESTABLISHMENT OF RESERVES**

23 **SEC. 801.** (a) The Administrator of Energy Research
24 and Development (hereinafter referred to in this title as the
25 “Administrator”) is authorized and directed to establish and

1 maintain a separate reserve of crude oil, refined petroleum
2 products, and natural gas capable of replacing energy imports
3 for at least 120 days in order to minimize the adverse impact
4 on the economy and the national defense needs of the United
5 States in the event of interruptions or reductions in imports
6 of crude oil, refined petroleum products, and natural gas.

7 (b) The Administrator shall take such action as may be
8 necessary to establish such reserve and to provide for the
9 storage, security and maintenance of crude oil, refined petro-
10 leum products, and natural gas for purposes of this title.

11 (c) Such reserves shall consist of crude oil, refined pe-
12 troleum products, and natural gas acquired by the Adminis-
13 trator in accordance with this title, and stored in any tech-
14 nologically feasible manner or left in place in accordance with
15 law.

16 (d) In establishing and maintaining the reserves au-
17 thorized by this title, the Administrator is authorized to place
18 in storage, transport, exchange, or store in place—

19 (1) crude oil, refined petroleum products, and nat-
20 ural gas produced from the naval petroleum reserves to
21 the extent authorized by title X of this Act or by any
22 other law;

23 (2) crude oil, refined petroleum products, and
24 natural gas acquired by the United States in accord-
25 ance with the provisions of title IX of this Act;

1 (3) royalty oil and gas acquired by the United
2 States as payment in connection with leases under the
3 mineral leasing laws of the United States.

4 (e) Crude oil, refined petroleum products, and natural
5 gas within the reserves established by this title shall be avail-
6 able for use, as the President shall prescribe by Proclama-
7 tion, for periods during which there exists within the United
8 States a shortage of crude oil, petroleum products, and gas
9 caused by the unavailability of imports into the United
10 States sufficient to meet the needs of the United States and
11 other nations.

12 (f) There are authorized to be appropriated from the
13 Trust Fund established by title II of this Act such amounts
14 as may be necessary to carry out the provisions of this sec-
15 tion, including the purchasing or other acquisitions of oil
16 and gas for purposes of the National Energy Reserve.

17 (g) Crude oil, refined petroleum products, and gas
18 held in reserve pursuant to this section and made available
19 for disposition by Presidential Proclamation shall, except
20 in the case of Federal agencies, be disposed of by sale to
21 the highest responsible qualified bidder.

22

ROYALTY OIL AND GAS

23

SEC. 802. In order to acquire crude oil, refined petroleum
24 products, and natural gas sufficient to meet the requirements
25 of this title, the Secretary of the Interior shall, at the request

1 of the Administrator of Energy Research and Development,
2 in addition to purchasing or utilizing other means of acquiring
3 such crude oil, refined petroleum products, and gas,
4 require that all royalties accruing to the United States under
5 any oil or gas lease or permit under the Act entitled "An
6 Act to promote the mining of coal, phosphate, oil, oil shale,
7 gas, and sodium in the public domain", approved February
8 25, 1920, and the Outer Continental Shelf Lands Act, be
9 paid in oil and gas, and such oil and gas shall, to the extent
10 so required, be made a part of the National Energy Reserve.

11 **TITLE IX—REMOTE OIL AND GAS DISCOVERY**
12 **ACT**

13 **SHORT TITLE**

14 **SEC. 901.** This title may be cited as the "Remote Oil
15 and Gas Discovery Incentive Act of 1975".

16 **PURCHASE AGREEMENTS**

17 **SEC. 902.** (a) In order to encourage the exploration of
18 oil and gas reserves in remote areas of the United States, the
19 Secretary of the Interior (hereinafter referred to in this title
20 as the "Secretary") is authorized to enter into purchase
21 agreements with individuals who discover oil or gas in wells
22 certified by the Secretary as capable of producing oil or gas
23 in paying quantities. Under such agreement, the United
24 States shall guarantee the purchase, in place, of fifty per

1 centum of the annual production capability of such well in
2 accordance with the provisions of this title.

3 (b) Upon written request of any such individual, the
4 Secretary of the Interior shall, within six months following
5 such request, take such action as may be necessary to investi-
6 gate any such well with a view to determining whether such
7 well is capable of producing oil or gas in a paying quantity.
8 If the Secretary so determines, he shall certify that such well
9 is capable of producing oil or gas in a paying quantity.

10 (c) (1) If the Secretary, upon the expiration of the
11 eighteen-month period following the receipt by him of any
12 request in accordance with subsection (b) of this section,
13 determines, in connection with any well which has been certi-
14 fied by him as capable of producing oil or gas in a paying
15 quantity, that adequate facilities are not available for purposes
16 of transporting such oil or gas to refineries or other markets,
17 the Secretary shall, at the written request of such individual,
18 enter into an agreement with that individual pursuant to
19 which the United States shall purchase, in place, an amount
20 of such oil or gas which the Secretary determines is equal
21 to 50 per centum of the production capability of such well
22 over the next following twelve-month period if such well
23 were producing at the maximum efficient rate of production.
24 Such agreement may be extended under the same terms and
25 conditions for each of the two next following twelve-month

1 periods if, prior to the commencement of any such period, the
2 Secretary determines that adequate facilities for transporting
3 such oil or gas are not available. In determining the produc-
4 tion capability of such well the Secretary shall take into
5 consideration the average production decline rate.

6 (2) Each such agreement entered into pursuant to this
7 section shall contain provisions requiring such individual to
8 agree to commence production of such well within six months
9 following the date that the Secretary determines that ade-
10 quate facilities for so transporting such oil or gas exist. Such
11 agreement shall further provide for the forfeiture by such
12 individual of all rights to any such well covered by such
13 agreement if such individual fails to commence and carry out
14 production in accordance with the terms of such agreement.

15 (3) Notwithstanding any other provision of this sec-
16 tion, in no case shall the United States purchase oil or gas
17 in any such well in excess of fifty per centum of the total
18 recoverable production capacity of that well as determined
19 by the Secretary.

20 (d) Any purchases made by the Secretary pursuant to
21 this title shall be at a rate determined by the Secretary to be
22 equal to the fair market value, at the time of such purchase
23 agreement, or extension thereof, as the case may be, of such
24 oil or gas at the well head assuming adequate facilities for
25 transporting such oil or gas. The purchase price for such

1 oil or gas shall be reduced by an amount equal to the royalty
2 owing on such oil or gas so sold in accordance with the terms
3 of the lease covering such oil or gas.

4 (e) Upon the commencement of production of any such
5 well, the United States under any such purchase agreement,
6 shall be entitled to the entire production thereof until such time
7 as the United States has received an amount of such oil or gas
8 equal to its purchases under such agreement. The Secretary
9 of the Interior shall dispose of such oil and gas so produced
10 and acquired by him in the same manner as that provided
11 for royalty oil and gas under section 36 of the Act of Feb-
12 ruary 25, 1920, as amended (30 U.S.C. 192), including
13 the utilization, at the direction of the Administrator of En-
14 ergy Research and Development, of such oil and gas as a
15 part of the National Energy Reserve established by title
16 VIII of this Act. All moneys so acquired in connection with
17 the disposition of such oil and gas shall be deposited in the
18 Trust Fund established by title II of this Act, except that
19 an amount thereof sufficient to pay to the appropriate State
20 or States its share of $37\frac{1}{2}$ per centum thereof in accordance
21 with section 35 of the Act of February 25, 1920, as amended
22 (30 U.S.C. 191), shall be paid into the Treasury of the
23 United States for purposes of making payment to such State
24 or States in accordance with the provisions thereof.

25 (f) As used in this section, "maximum efficient rate"

1 means production at a rate which may be sustained without
2 damage or loss to the oil or gas reservoir or the ultimate
3 recovery of crude oil under sound conservation, economic, or
4 engineering principles.

5 (g) There are authorized to be appropriated from the
6 Trust Fund established by title II such amounts as may be
7 necessary to carry out the provisions of this title, including
8 oil and gas purchases.

9 (h) No oil or gas lease entered into pursuant to the Act
10 of February 25, 1920, as amended, covering lands on which
11 there is a well capable of producing oil or gas in paying
12 quantities and with respect to such well there is an agree-
13 ment entered into pursuant to this title shall be terminated
14 because of the failure of the lessee to produce such oil
15 or gas, if such failure is in accordance with the terms of such
16 agreement.

17 TITLE X—TRANSFER TO THE SECRETARY OF THE
18 INTERIOR OF JURISDICTION OVER THE
19 NAVAL PETROLEUM AND OIL SHALE RE-
20 SERVES

21 TRANSFER OF JURISDICTION

22 SEC. 1001. (a) Effective upon the expiration of the
23 ninety-day period following the date of the enactment of
24 this title, all jurisdiction and control of the Secretary of the
25 Navy (including those powers and functions conferred on

52.

1 the Secretary of the Navy by chapter 641 of title 10, United
2 States Code, which are necessary to the Secretary of the
3 Interior to enable him to carry out his duties under this title)
4 over all properties inside the naval petroleum and oil shale
5 reserves of the United States (including lands covered by
6 leases) are transferred to the Secretary of the Interior.

7 (b) Except as provided in this title, the lands compris-
8 ing the naval petroleum and oil shale reserves shall be ad-
9 ministered by the Secretary of the Interior in the same
10 manner and subject to the same laws of the United States,
11 including the mineral leasing laws, as other public lands of
12 the United States.

13 (c) Nothing in this title shall be construed as affecting
14 any lease, contract, or other agreement entered into prior
15 to the date of the enactment of this title, or the carrying
16 out of such lease, contract, or agreement in accordance
17 with the terms thereof, or to prohibit the continuance of any
18 production of oil and gas being carried out prior to the date
19 of the transfer of the jurisdiction and control of the naval
20 petroleum and oil shale reserves to the Secretary of the
21 Interior by this title. The Secretary of the Interior is author-
22 ized to exercise the powers and functions transferred to him
23 by this title to the extent necessary to enable him to carry
24 out the provisions of this subsection, including those involv-
25 ing the disposition of oil and gas products (including royalty

1 products) from lands in the naval petroleum and oil shale
2 reserves and lands outside such reserves covered by joint,
3 unit, or other cooperative plans, for the benefit of the United
4 States.

5 PRODUCTION AUTHORIZED

6 SEC. 1002. (a) The production of petroleum and natural
7 gas from Naval Petroleum Reserve Numbered 1 is hereby au-
8 thorized in order to insure that the domestic and national de-
9 fense needs are met, including the needs with respect to the
10 National Energy Reserve established by title VIII of this
11 Act. Such reserve shall be developed and produced at its
12 maximum efficient rate in accordance with sound engineering
13 and economic principles. Any disposition of the mineral de-
14 posits and lands within the lands comprising such reserve
15 shall be in accordance with the Act of February 25, 1920, as
16 amended.

17 (b) Any disposition of the United States share of pro-
18 duction within the Naval Petroleum Reserve Numbered 1
19 shall be in accord with the laws relating to the disposition of
20 the United States share of production of crude oil and gas
21 within other lands covered by the Act of February 25, 1920,
22 as amended, and the provisions of chapter 641 of title 10,
23 United States Code.

24 (c) Notwithstanding any other provision of this title or
25 of any other law, the Secretary of the Interior, at the request

1 of the Administrator of Energy and Research Development,
2 shall make available crude oil, refined petroleum products,
3 and natural gas acquired by the United States from lands
4 comprising Naval Petroleum Reserve Numbered 1 for pur-
5 poses of title VIII of this Act.

6 EXPLORATION ON PETROLEUM RESERVE 4

7 SEC. 1003. (a) The Secretary of the Interior shall con-
8 duct a program of exploration for oil and gas on Naval Pe-
9 troleum Reserve Numbered 4 in order to determine the ex-
10 tent of oil and gas resources therein.

11 (b) Upon making a determination of the extent of such
12 oil and gas resources in Naval Petroleum Reserve Numbered
13 4, but in no event later than three years following the date of
14 the enactment of this Act, the Secretary of the Interior is
15 authorized to provide for production of oil and natural gas
16 within such reserve, and to dispose of the United States share
17 of production, in the same manner and to the same extent
18 as that provided by this title for lands within Naval Petroleum
19 Reserve Numbered 1.

20 STATE SHARE

21 SEC. 1004. Notwithstanding any other provision of law,
22 all moneys acquired by the United States from sales, bonuses,
23 royalties, and rentals of lands, including the sale of royalty
24 products, comprising the naval petroleum reserves in con-
25 nection with the production of oil and gas shall, notwithstand-

1 ing any other provision of law, be paid into the Treasury of
2 the United States, and $37\frac{1}{2}$ per centum thereof shall be paid
3 by the Secretary of the Treasury as soon as possible after
4 December 31 and June 30 of each year to the State within
5 the boundaries of which the leased lands or deposits are or
6 were located. Such moneys shall be available for use by such
7 State in such manner and for such purpose as it shall deter-
8 mine.

9 COMPREHENSIVE PLANS FOR LAND USE OR DISPOSITION

10 SEC. 1005. On or before the expiration of the twelve-
11 month period following the date of enactment of this title,
12 the Secretary of the Interior shall report to the Congress a
13 comprehensive plan or plans containing his recommendations
14 for a program for the best and most appropriate use or dispo-
15 sition of the surface of the naval petroleum and oil shale
16 reserves lands the jurisdiction and control with respect to
17 which are transferred by this title. In preparing any such
18 plan or plans pursuant to this section, the Secretary of the
19 Interior shall seek the views and recommendations of the
20 Joint Federal-State Land Use Planning Commission for
21 Alaska established by the Alaskan Native Claims Settlement
22 Act to the extent that such plan or plans involve or other-
23 wise affect lands within Naval Petroleum Reserve Num-
24 bered 4.

1 TITLE XI—CONSOLIDATION OF THE ENERGY
2 RESEARCH AND DEVELOPMENT ADMINIS-
3 TRATION AND FEDERAL ENERGY ADMINIS-
4 TRATION

5 TRANSFER OF FUNCTIONS

6 SEC. 1101. There are hereby transferred to and vested
7 in the Administrator of Energy Research and Develop-
8 ment, Energy Research and Development Administration,
9 all functions of the Administrator of the Federal Energy
10 Administration, and officers and components of that Ad-
11 ministration, as were specifically transferred to or vested
12 in the Administrator of the Federal Energy Administration
13 by or pursuant to the Federal Energy Administration Act
14 of 1974, delegated to such Administrator by the President
15 pursuant to specific authority vested in the President by
16 law, and otherwise vested in the Administrator of the Fed-
17 eral Energy Administration by the Congress.

18 TRANSITIONAL AND SAVINGS PROVISIONS

19 SEC. 1102. (a) All orders, determinations, rules, regu-
20 lations, permits, contracts, certificates, licenses, and privi-
21 leges—

22 (1) which have been issued, made, granted, or al-
23 lowed to become effective by the President, the Admin-
24 istrator of the Federal Energy Administration, by any
25 Federal department or agency or official thereof, or by

1 a court of competent jurisdiction, in the performance
2 of functions which are transferred under this title, and
3 (2) which are in effect at the time this title takes
4 effect, shall continue in effect according to their terms until
5 modified, terminated, superseded, set aside, or revoked
6 by the President, the Administrator of the Federal En-
7 ergy Administration, other authorized officials, a court
8 of competent jurisdiction, or by operation of law.

9 (b) This title shall not affect any proceeding pending,
10 at the time this Act takes effect, before any department or
11 agency (or component thereof) regarding functions which
12 are transferred by this title; but such proceedings, to the
13 extent that they relate to functions so transferred, shall be
14 continued. Orders shall be issued in such proceedings, appeals
15 shall be taken therefrom, and payments shall be made pur-
16 suant to such orders, as if this title had not been enacted;
17 and orders issued in any such proceedings shall continue in
18 effect until modified, terminated, superseded, or revoked by
19 a duly authorized official, by a court of competent jurisdic-
20 tion, or by operation of law. Nothing in this subsection
21 shall be deemed to prohibit the discontinuance or modifica-
22 tion of any such proceeding under the same terms and con-
23 ditions, and to the same extent, that such proceeding could
24 have been discontinued if this title had not been enacted.

1 (c) Except as provided in subsection (e)—

2 (1) the provisions of this title shall not affect suits
3 commenced prior to the date this Act takes effect, and

4 (2) in all such suits proceedings shall be had,
5 appeals taken, and judgments rendered, in the same
6 manner and effect as if this title had not been enacted.

7 (d) No suit, action, or other proceeding commenced by
8 or against any officer in his official capacity as an officer of
9 any department or agency, functions of which are transferred
10 by this Act, shall abate by reason of the enactment of this
11 title. No cause of action by or against any department or
12 agency, functions of which are transferred by this title, or by or
13 against any officer thereof in his official capacity shall abate
14 by reason of the enactment of this title. Causes of actions,
15 suits, actions, or other proceedings may be asserted by or
16 against the United States or such official as may be appro-
17 priate and, in any litigation pending when this title takes
18 effect, the court may at any time, on its own motion or that
19 of any party, enter any order which will give effect to the
20 provisions of this section.

21 (e) If, before the date on which this title takes effect,
22 any department or agency, or officer thereof in his official
23 capacity, is a party to a suit, and under this title any function
24 of such department, agency, or officer is transferred to the
25 Administrator of Energy Research and Development, or any

1 other official, then such suit shall be continued as if this title
2 had not been enacted, with the Administrator, or other official
3 as the case may be, substituted.

4 (f) Final orders and actions of any official or compo-
5 nent in the performance of functions transferred by this title
6 shall be subject to judicial review to the same extent and in
7 the same manner as if such orders or actions had been made
8 or taken by the officer, department, agency, or instrumen-
9 tality in the performance of such functions immediately pre-
10 ceding the effective date of this title. Any statutory require-
11 ments relating to notices, hearings, action upon the record,
12 or administrative review that apply to any function trans-
13 ferred or delegated by this title shall apply to the perform-
14 ance of those functions by the Administrator of Energy
15 Research and Development, or any officer or component of
16 the Energy Research and Development Administration.

17 (g) With respect to any function transferred by this
18 title and performed after the effective date of this title,
19 reference in any other law to any department or agency,
20 or any officer or office, the functions of which are so trans-
21 ferred, shall be deemed to refer to the Energy Research
22 and Development Administration, Administrator of Energy
23 Research and Development, or other office or officers in
24 which this title vests such functions.

25 (h) Nothing contained in this Act shall be construed

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1 to limit, curtail, abolish, or terminate any function of the
2 President which he had immediately before the effective
3 date of this title; or to limit, curtail, abolish, or terminate his
4 authority to perform such function; or to limit, curtail,
5 abolish, or terminate his authority to delegate, redelegate,
6 or terminate any delegations of functions.

SUMMARY OF MAJOR PROVISIONS OF ENERGY REVENUE AND DEVELOPMENT ACT
OF 1975

TITLE I—STATEMENT OF POLICY AND PURPOSES

This title sets forth the basic policy of the Act to provide a comprehensive national program to achieve energy independence by 1985.

TITLE II—ENERGY TRUST FUND

The bill establishes an Energy Trust Fund, administered by the Energy Research and Development Administration, to carry out a national energy program, including research and development of new and improved energy sources and production techniques, creation of a national energy reserve and the exploration of new oil and gas fields in remote areas of the United States. The Trust Fund will be partially financed by a BTU tax which will be levied equally on all forms of energy. No section of the country will be unduly burdened by the tax because it will be levied at the source of production or importation on all energy resources at the rate of 2¢ per million BTU's. The Trust fund will also be financed by outer continental shelf revenues, a portion of which would be allocated to States adjacent to offshore drilling areas. Thus, government revenues from energy production will be used to promote further energy development.

TITLE III—COMMISSION ON ENERGY TECHNOLOGY ASSESSMENT

A panel of scientists, engineers, and economists will be created to establish standards and goals for energy research and development conducted under the Energy Research and Development Administration. All publicly financed research and development would be critically evaluated by CETA in order to prevent taxpayers' money from being wasted on ill-conceived projects. CETA would enter into contracts with private, non-profit educational or research institutions to perform adversary studies on publicly financed programs.

TITLE IV—RESIDENTIAL ENERGY CONSERVATION INCENTIVES

Tax credits and deductions are provided for the installation of storm windows, insulation, and other materials designed for residential energy conservation. A tax credit or deduction is also allowed for the installation of systems designed to utilize solar or other unconventional forms of energy to provide residential heating or cooling if such systems meet performance criteria established by the Energy Research and Development Administration.

TITLE V—DEREGULATION OF NATURAL GAS AND END OF PRICE CONTROLS

In order to encourage domestic energy production, price controls on petroleum, petroleum products, and natural gas at the wellhead, old and new, are to be deregulated.

TITLE VI—EXCESSIVE PROFITS TAX

The bill provides an 80% tax on all profits from oil and gas industry if such profits exceed a 15% return on net investment. In order to guarantee a plow back of excessive profits from deregulated oil and natural gas, the bill provides that excess profits which are reinvested in new energy production will be taxed pursuant to normal corporate tax regulations. The excessive profits tax and reinvestment provisions will expire at the end of five years.

TITLE VII—VARIABLE DEPLETION ALLOWANCE

The bill would repeal the foreign depletion allowance. The domestic depletion allowance is necessary to entice needed capital to the oil and gas industry. The independent sector of that industry accounts for 80% of the exploratory drilling in the United States. The bill establishes a variable domestic depletion allowance which allows producers a fraction of the percentage depletion allowance which would be proportional to the ratio of the producer's domestic energy expenditures to its total foreign and domestic energy expenditures. To illustrate:

$$\text{New domestic depletion allowance} = \frac{22\% \times \text{domestic energy expenditures}}{\text{total foreign and domestic expenditures}}$$

TITLE VIII—NATIONAL ENERGY RESERVE

In order to reduce the vulnerability of the United States to an embargo on imported energy supplies, the bill establishes a national energy reserve which would be capable of replacing energy imports for at least 120 days. The reserve would be administered by ERDA and funds to create it would be apportioned from the Energy Trust Fund.

TITLE IX—REMOVE OIL AND GAS DISCOVERY ACT

The United States has large unexplored oil and gas reserves in remote areas of the United States. In order to stimulate production in remote areas where transportation facilities do not exist, the bill provides that the United States guarantee the purchase in place, at current market prices, of 50% of the annual production capability of such wells. Once transportation facilities become available, the United States would have the option of keeping its oil or gas in the well as a reserve, or of selling the oil or gas at current market prices.

TITLE X—TRANSFER OF JURISDICTION OVER AVAL PETROLEUM RESERVE TO SECRETARY OF INTERIOR

The bill transfers the management of all energy resources located in naval petroleum reserves to the Department of the Interior. Pursuant to existing provisions of the Mineral Leasing Act of 1920, a portion of the revenues from the petroleum reserves would inure to the States.

TITLE XI—CONSOLIDATION OF ERDA AND FEA

The bill provides for a consolidation of the Federal Energy Administration into the Energy Research and Development Administration in order to avoid overlapping and conflicting bureaucracies and to insure a unified national energy policy and effort.

Senator JOHNSTON. The next witness is Dr. Merrill W. Haas, president of the American Association of Petroleum Geologists.

You may either summarize or give your statement verbatim. We usually prefer a summary, but it is up to you.

STATEMENT OF MERRIL W. HAAS, PRESIDENT OF THE AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Mr. HAAS. My plans are to give it verbatim, Mr. Chairman.

Mr. Chairman, my name is Merrill W. Haas, president of the American Association of Petroleum Geologists; and I am representing AAPG. Our association is a scientific organization founded in 1917 and has nearly 17,000 members from all States of the Union as well as 80 different countries. There are no corporate memberships. AAPG's members are interested primarily in finding oil and gas and have selected the drilling sites of practically all of the major oil and gas fields discovered in the free world for almost 60 years, including the great oil fields of the Middle East. We are dedicated to maximizing oil and gas discoveries to meet the energy needs of our country. No one can challenge our expertise in these matters.

My remarks today will be directed to proposals in the various bills under consideration by this committee which indicate a lack of fundamental knowledge about finding hydrocarbons and which will result in serious delays in discovering the resources of the OCS.

Senator JOHNSTON. Excuse me, I have just been handed a note which says we have to compress a full day's hearing into a half day because we have the oil depletion bill coming up this afternoon. We want to ask all witnesses to limit oral testimony to 10 to 15 minutes, which

I hate to do. I would like to go on at some lengths, particularly with you as well as these other witnesses.

Mr. HAAS. I will just read faster.

It is agreed that there is an urgent need to decrease the dependence on costly and interruptible foreign energy supplies. One bill, S. 740, purports to promote the general welfare by establishing a National Energy Production Board to assure early development of energy resources on the public lands. On the contrary the proposed solutions of this bill, as well as those in S. 81, S. 426, and S. 521, will actually prolong the dependence for many years. Furthermore, the delay caused by these proposals will eliminate the possibility of attaining a greater degree of energy independence than we enjoy today. It is not clear why any of these bills are necessary when our free-enterprise system has efficiently and effectively supplied great quantities of energy resulting in our Nation's having the highest standard of living in the world. The proposals would bring about a radical change in our lifestyle that is neither desirable nor necessary. They would damage the free-enterprise system and the economic well-being of the U.S. consumer and taxpayer. The unwarranted proposed regulations pertain to the areas of greatest potential resources to which our Nation must turn to achieve energy independence. Regulation never found a barrel of oil, nor will it ever.

There is substantial misinformation in Congress about the science of exploring for oil and natural gas. Therefore, my testimony will cover three areas in which we have undeniable expertise: (1) Assessment of potential in the frontier areas of the OCS; (2) Federal exploration; and (3) Data submission requirements pertaining to the Federal domain.

Many variables affect the occurrence of oil and natural gas. These variables must be considered in any assessment of potential. For instance, coincidental favorable geologic parameters must occur for an area to contain significant amounts of hydrocarbons. A minimum thickness of sedimentary rock containing source beds, stratigraphic sequences to provide porous and permeable reservoirs as well as effective seals. A favorable temperature gradient to convert the organic materials to hydrocarbons. When the fluids within the sedimentary sequences begin their movement due to pressure stresses, properly sealed traps must form and be in proper relationship to the source. These are just a few of the geologic parameters pertaining to the accumulation of hydrocarbons. In addition, there are economic parameters which affect recovery. Variations or absence of any of these parameters greatly affect the assessment.

In estimating a frontier area's oil and gas potential, a methodology must be set up which considers all parameters. The methodology must weigh the importance of each. But more important, any methodology must conform to a set of definitions which carefully describe the assessment desired. Today there is no standard assessment method. Thus, one needs to know what assumptions and definitions underlies each assessment. Any assessment requires judgment decisions on the part of the geologist. Each geologist can weigh important parameters differently; so, rarely are two estimates exactly the same. It should be no surprise then that potential reserve estimates for the OCS have varied so widely. I am not at all dismayed that estimates for the

United States range from 100 billion barrels to three and four times that amount.

So many estimates are available that those using them can select any one to further their own interests. Practically speaking, however, under no circumstances can any estimate be used as a single answer. It must be viewed in the context of ranges which may vary by many orders of magnitude.

Even after a large amount of exploration has been done, there can be no single answer to the OCS potential. Nevertheless, at least two bills, S. 426 and S. 740, would suggest a single-answer syndrome—an assumption that the public will know once and for all the potential of the OCS just because the Federal Government undertakes an exploratory program. This is misleading. After 25 years of exploration, industry is still finding new fields in the Gulf of Mexico, reserves are being added to the old fields, and potential estimates are still changing. It is ridiculous to assume any one entity, including the Federal Government, could make an accurate estimate of the OCS and particularly in the proposed time period. I refer you to the authoritative AAPG Memoir 15, volume 1, pages 22–26, on the problems of estimating potential reserves. I have a copy here so you all can see what it looks like [indicating].

With this in mind, let's discuss Federal exploration. Proponents of this concept cite the need to establish the fair market value for Federal resources to prevent a "give away" to industry. Others cite the need to stimulate competition, and some even state that a Federal exploration company would measure the efficiency of private enterprise. Such claims confuse the issues before the American people.

Such claims ignore the fact that the U.S. consumer pays among the lowest prices in the world for fuel; or that private industry has taken the risk of exploring for the resources and will continue to do so if government refrains from imposing new economic and punitive constraints.

As for the charge of a "give away," consider these examples. In 1964, a Federal sale was held offshore Oregon and Washington; \$37 million was paid in lease bonuses and rentals, followed by the drilling of many successful wildcat wells. No discoveries were made.

In 1968, an offshore sale was held in California. Discoveries have been made but development has been restricted. A decade will pass before any revenue will be returned on much of the \$600 million spent in the sale.

In 1968, nearly \$600 million was spent for leases in the Texas OCS. One small oil and several small gas discoveries were made. Most of the acreage has been released, and the sale must be classified as an economic failure.

Remember these sums exclude the substantial exploration costs to test these areas. The Federal Government and the public have had their money since the lease sales—over \$1.2 billion. Industry's return is nearly zero. Recently, in 1973, \$1.5 billion was spent by industry in the Mafra area. So far, 10 holes have been drilled in the northeast gulf with no discoveries. This could very well be another nonproductive province. As for the actual distribution of revenues to date, over 80 percent of all revenues generated from the OCS has gone to the Government. It is reported that industry's return on its invested dollar in

the offshore through 1973 has been from 4 percent to 6 percent. The industry could have made an equal return without risk by investing in savings accounts. You might ask why didn't they? Optimists that they are, industry anticipated a better return. That's the risk. Yet, industry will continue its search for oil and natural gas in the unknown frontiers of the United States.

Let's discuss the risks inherent in finding hydrocarbons. Using geophysical, geochemical, and geological tools and techniques, the search for accumulations extends to over 5 miles below the surface. The average diameter of the drill hole is about 5 inches at the depth of the accumulation. With only a 5-inch hole as a geologic mirror, it must be obvious that many wrong decisions are possible in deciphering the geologic conditions occurring at these depths. This is particularly true in the younger deposits where sedimentary changes can occur even between closely spaced wells. Consequently, the size of a field is known only after many development wells are drilled. Modern technology has improved the accuracy of predicting field limits; yet, one out of every five development wells in the offshore is still a dry hole.

Prospect delineation relies heavily on geophysics. However, variations in the rock properties can affect seismic recordings to the extent that structures interpreted from seismic data may not exist. Structures become more complex with well density, which increases the risk. Even a new method such as "bright spot" technology, which under certain geologic conditions indicates the presence of hydrocarbons, has its limitations. Contrary to popular belief, this technique has not eliminated exploration risk.

Turning now to the charge of a lack of competition, the record shows that OCS sales are increasingly competitive. A steady growth has taken place in both the number of bidders and those acquiring acreage. At the 1962 sale, 32 companies entered bids and 29 acquired leases. In subsequent sales, the number of participants gradually increased to as many as 83 with about 60 acquiring leases. This is a true measure of competition. Competition is also indicated by overbids. In the last 10 offshore sales in the Gulf of Mexico, the overbids totaled \$5.3 billion, more than 46 percent of the total money spent. Only in an intensely competitive bidding environment would one expect such results.

Let's now consider the matter of whether a Federal exploration company could measure the efficiency of industry in finding oil and natural gas.

The Federal Government today has difficulty running its own business. Its debt is staggering. Can this be a standard of efficiency? The results of most government corporations are not proud standards by which to judge the free-enterprise system. Why would the proposed Federal exploration company be any different? On the contrary, it would be the opening wedge for Fogco: and Fogco would not be just another competing company. It would start with impressive advantages over its competitors. It would receive choice leases. It would pay no bonuses, no royalties, no income tax; and the taxpayers would provide its capital and underwrite its debts. Even under such favorable terms, it would be doomed to failure. Why?

A successful exploration company must have a decisionmaking organization, not a bureaucracy, and be geared to making practical,

not political decisions. It must be staffed by competent personnel with years of training in the science of finding oil and natural gas. The Federal Government has little expertise in these matters. Where would it secure its employees? Obviously, it would be necessary to raid industry. Such raiding would drastically diminish industry's oil-finding effort during this time of dire need for new energy supplies.

Finally, let's consider the submission of data from the Federal domain. In my testimony before the Department of Interior hearings last July on the submission of geological and geophysical data, I stated that the Federal Government is the owner of a tremendous quantity of raw data as well as confidential information which has been supplied by industry. Now, I'll go a step further. The Federal Government is the owner of more raw data on the OCS than any other single company because of industry's compliance with data submission requirements. Because of these submissions, the Federal Government receives many times the raw data that it could generate by itself; yet, we hear repeated charges that industry's withholding information pertaining to exploration. This is an unfair accusation against the industry.

Industry has not been derelict in its submission of data, nor will it be as long as the confidentiality is maintained. Competitive positions must not be compromised by premature release of costly scientific information.

In conclusion, Mr. Chairman, these proposals are ironic. While on one hand the sponsors recognize the regulatory, economic, environmental, and administrative delays in developing the resource base of our Nation, their solutions would create additional and more restrictive delays. While the right hand champions free enterprise under the 1970 Mining and Minerals Policy Act, the left hand proposes replacement of private industry. While recognizing that the development of our domestic resources is the way to progress toward energy independence, the sponsors propose lease moratoriums and denial of access to the potential areas, increasing our dependence on imports. The ultimate results will severely impact the U.S. consumer and taxpayer.

It is difficult to believe these proposals or even understand why they have been made. The Nation's experts in exploration, who are as important a national resource as the basic fuels themselves, have not been consulted.

Obviously, it is easy to write bills; but the details, organization, and implementation of the project is a far different matter. We, the energy finders, know the difficulties, risks, delays, and the many failures in the exploration business. Your decisions will have far-reaching consequences on this Nation and all mankind. These proposals can cause the greatest domestic dilemma the Nation has ever faced.

And, finally, let me answer the charge by critics that the energy crisis was not forecast and, therefore, the Nation's congressional leaders were caught unprepared. In 1952, the Paley Commission published the report stating that shortages of energy and raw materials posed threats of economic crises and dangerous dependence on imports by 1975. Congress was warned.

In addition, throughout the decade of the 1960's, spokesmen from industry, alerted to the growing restraints on energy development, also reiterated such warnings. But nobody listened. Furthermore, industry spokesmen rightly predicted that past performance would get no credit but instead industry would be charged with creating the crisis. The crisis produced scores of instant experts whose opinions are given greater weight than those who find the energy. Today, we are issuing warnings on decisions that can have profound effects on the energy situation. We hope these warnings are heard before it is too late.

Remember, energy is found not by the computer, magic formulas, or political decisions—it is found in the “minds of men.” If the oil finders of today can practice their profession without new increasingly burdensome regulations and spurred by economic incentive, the future is not lost. You, Mr. Chairman, and other congressional leaders can preserve or destroy the environment necessary to supply new energy supplies.

Our association is eager and willing to advise on the important matters pertaining to the exploration for energy.

Thank you.

Senator JOHNSTON. Thank you very much indeed, Mr. Haas. I happen to share with you that the FOGCO approach is not the way to explore for oil and gas. The better way is the profit motive.

In your statement on page 9, you say that industry has not been derelict in its submission of data nor will it be as long as confidentiality is maintained and you say the competitive positions must not be compromised by premature release of costly scientific information.

Now, suppose we required all oil companies that drill in the OCS to timely furnish to the Government, to be made public, all geological information of every sort, and you made that requirement applicable to everybody who drills in the OCS, why wouldn't that work?

Mr. HAAS. I think you have to define what you mean by geological information. You understand now they are getting the raw data. From raw data you develop what we call interpretive data. Then you get into the proprietary fields. The USGS has the raw data from which they can derive the data.

Senator JOHNSTON. First, why should not the raw data be released to the general public, and second, why should not interpretive data be released?

Mr. HAAS. After you take your raw data you can do what you want to do with your own data. But when it comes to interpretive data, you are getting into a very proprietary type of thing. As I see this it can lead down the line to when you start exploring on your Federal lands, onshore, and this is where just a lot of the independents that are working, these maps they prepared are their livelihood. If they have to release these things within 60 days, which they talked about in the original bill last July, and then cannot get their deal put together, this interpretative information becomes public property, everybody has it and they can make deals on it.

Senator JOHNSTON. Tell me why it should not be done offshore? That is for onshore.

Mr. HAAS. OK. Now, offshore, what we have, every person that operates—not everybody, but generally the companies, let's say, because they are the major ones offshore, have expertise in their research

departments and so forth which they feel and they have some reason to believe that their research gives them a competitive advantage over their competitors.

Now, this is interpretive data. For this reason if they release this interpretive data, other people can go back and find out what their programs and so forth are and come up with the same expertise. This would not be fair.

Senator JOHNSTON. Well, some of my colleagues say we need to do this, that it is fair because it applies to all equally. It increases the level of knowledge about that OCS, and the more knowledge you have the faster and better development you are going to have. Would you give me an answer for something like that?

Mr. HAAS. I would say in that respect the Government should do all the research and development. If this thing happens you are going to kill research and development. Where has the expertise come from in the oilfields? It has come from private enterprise.

Senator JOHNSTON. Why would it kill it?

Mr. HAAS. Why should we or anybody develop the expertise and give it to somebody else when the Government would be developing it and all we have to do is wait for it? Why should the burden be on a few people to give it to everybody so everybody can sit around like a bunch of leeches and capitalize on it? I don't understand it.

Senator JOHNSTON. Let's say we require those that get a lease, and after they start punching holes out there, to release such information they have developed about the lease they have. What would be wrong with that?

Mr. HAAS. Well, they are getting the raw data, the maps and things have not changed. If we would give a map, for instance, the national map where we did our drilling, after the first well it would have to change. After the well, that would have to change. Another thing I think the people forget is that if you put out data and publish a map out here and people use that map and go out and bid and then find out it is nonproductive, where would the incriminations fall?

Senator JOHNSTON. Let me ask you one more question on exploration. What would it cost to take a drill ship and say, sink a hole in the Baltimore Canyon? First, what would it cost, and second, what would it tell you if you sunk a hole out there to whatever the optimum depth is, what, as a geologist, could you tell by the one hole?

Mr. HAAS. Let's first talk about the cost. I can't tell you exactly because I don't recall what your depth would be, but to get a drill ship would cost you around \$30,000 to \$50,000 a day to run it. So you have this tremendous cost. Then, I don't know, I don't recall what the depths are.

Now, you asked what would we find with the first hole? Was that your question?

Senator JOHNSTON. Yes. What could you tell with one hole or just a few holes?

Mr. HAAS. With one hole if it were dry I could tell you that—that we had a dry hole. That is obvious. But also I would be getting some samples and by getting these samples I would probably run some chemical analyses and see whether or not these beds appeared to have the power type of organic matter and so forth to be source beds. Because there must be some reason for the dry hole, maybe structurally.

Supposing it is a producer. Supposing there is some oil and gas there. All I know is I got some oil and gas in one hole. I know nothing about the extent of the accumulation, or what the ultimate reserves of this thing would be. It would take numerous holes to do this, because as you recall, Mr. Chairman, that in the area—

Senator JOHNSTON. How many would it take?

Mr. HAAS. I can't tell you because I can't tell you. We would not know the size of the structure. The reason I can't tell you is because you can't get to a single-answer syndrome. People are trying to get a single-answer by drilling exploration wells to determine the finite amount so that supposedly they put it up for bidding so there can be no rip offs, supposedly, by the industry when they bid. You know exactly how many barrels a day. But let's look at the situation in the offshore, which you are familiar with, in Louisiana. You have an area here that has still got a lot of wells drilled on structures. Today those structures are adding reserves. In fact, many structures for years after will increase the reserve by 50 and 75 percent over what you would have gotten from a few exploratory wells to begin with. It just can't be done. You are trying to separate production from exploration. You cannot determine reserve size under that method. You can do it to this extent: in that you can classify all these wells that would be going subsequently as production wells, drilled later as production wells, you initially classify them as exploration wells and keep drilling a tremendous number of exproation wells and plugging. Then after you get an estimate of the reserves you have to redrill all the wells and this is a double expense. The way to do it in actual practice is to go out and drill a few holes and find out you have enough for a platform. Then you set your platform. Then you start your development wells. This is when the big additional reserves come. You can't do it with exploration wells themselves. It is an impossibility. It shows this on anything, any time you make assessments. So the very idea of these bids where you have a Federal oil and gas exploration company, it is ridiculous. Nature did not work that way. We are just not smart enough to understand this.

Senator JOHNSTON. I share that view. I wish you would give me some information, a treatise or something, on why it is that a few holes out there don't determine the extent of reserves, that would be very, very helpful because I know from experience that off my State it does take sometimes hundreds of wells, and then you still don't know the extent and you are still drilling the exploratory wells.

Senator Hatfield.

Mr. HAAS. May I just interrupt a minute? You asked about expertise on this. We will be delighted to give you that. It is covered in here [indicating], and this is the authoritative body, the problems of the assessment. It is right in here [indicating].

Senator JOHNSTON. Thank you very much.

Senator HATFIELD. Mr. Haas, I am very impressed with your testimony. I was just interested in your association which you described on the first page, in the first paragraph. I was just wondering how many or what percentage of your members are employees of oil companies?

Mr. HAAS. Well, of course, I don't have the percentage figure. There are a good number of them. But let me tell you, there are many, many independents. Many independents.

Senator HATFIELD. More independents than, say, members of major companies?

Mr. HAAS. I don't have the figures for it. I could send it to you, if it is meaningful and you need it. But let me tell you, our organization is not pushing anything pertaining to majors or independents. We are trying as a group to get across the facts.

Senator HATFIELD. I was just interested in your association.

Mr. HAAS. Yes.

Senator HATFIELD. On page 7 you talk about the question of competition. You indicate that the competition is growing on the basis of the numbers of companies entering bids and the number acquiring leases.

Now, Mr. Haas, the Committee on National Ocean Policy, the Special Committee on National Ocean Policy Study, has published a report and in that report we have some statistics here indicating the contrary. I would like to just sort of see about whether we are talking about apples and oranges or if we are talking about the same thing.

We are informed that the more accurate way to determine the competition is the number of bids per tract, and in this particular report it shows that from 1973 to 1974, that is, calendar year 1973 to 1974, that the competition in OCS bidding where there were three or more bids per tract was 63 percent in 1973 as contrasted to 33 percent in 1974.

In other words, you might interpolate this another way, the number of bids per tract leased has dropped to the point of 66.9 percent, that all tracts leased in the October 1974 sale received only one to two bids, and the Interior Department then makes an evaluation saying this endangers competition because of this particular trend.

Then we could say that from this evidence the more tracts offered the fewer bids per tract. In other words, accelerated leasing programs, I suppose, may indicate a buyers market whereby you will have come to a point where that kind of acceleration decreases competition.

I would just like to get your response or observations on this?

Mr. HAAS. I am familiar with this report you are talking about. I think it is an excellent example of the statistics, but the statistics are meaningless. Because you are comparing apples and oranges in this thing.

Now, there is one thing that you have got to remember, and that is, in general the competition recognizes the top tracts and your top tracts generally in the sale draw the greatest number of bids. Now, you will know in your statistics—now, this is important—generally the competition is on the top tracts, the greater number of people bidding. Now, what has happened? When you just look at this from a statistical viewpoint carefully, of where these tracts are put up, this can influence the number of bids tremendously. If you go into a speculative area, and that is what some of these were at the time, there is a great number of people that will not bid because of the fact they want the other people to take the risk, on whether the area will be productive.

Now, another thing that has to be brought out in the statistics is that the last couple of sales were getting into the deeper and deeper and deeper water. And as a result, when you look at the top bids on the thing, they fell off, because there isn't the expertise in the industry for everybody to bid on these deep tracts in 1,800 feet of water. So

naturally this will draw down the number of bids on the top tracts. Only a very few companies can handle this kind of a situation.

Senator HATFIELD. You are saying that there was that much difference from the tracts offered in 1973 from the tracts offered in 1974?

Mr. HAAS. Part of it. You were getting in deeper water all the time.

There is another thing. In 1973 you will recall that you have doubled the number of acres. You went from, well, number of tracts, you went from 129—800,000 acres to—

Senator HATFIELD. 931,000 acres.

Mr. HAAS. Something like that. But in 1974, in May of 1974, you went to 1.3 million. So you almost over this period of time have been doubling the number of tracts. What has happened? You are in an area that has gone past the maturity in many of these cases and you are coming out further and further into the deeper waters, the more speculative areas, and this is what I said has reduced bids, plus the fact when you get into an area that has been pretty well worked over and put up the 1 million acres, you have got what we call in the oil industry a lot of ram pasture put up where nobody will put up any bid. In those cases you put up a lot of nebulous things that look like they might be structures. I saw some of those things. Some people take a gamble on them. They will bid one bid, or maybe two people will bid. But what you are doing is you are progressing to an area of less perspective. You get more ram pasture, people are getting higher—backing off, and the number of good tracts to bid on have fallen.

So when you take statistics you have to look at them. Look at what kind of prospects you are looking at, and so forth, so you can make a valid interpretation of the statistics.

Senator HATFIELD. As I understand it, you are saying that not only is it a question of character of the tracts offered, but it is also the degree of acceleration as to whether or not the industry can absorb that amount of acreage—

Mr. HAAS. I didn't say it was the degree of acceleration, no. I was talking about these statistics here are in an area, in an area of which it is decreasing in prospectiveness and to the degree of acceleration in that they did increase the number of tracts by almost double.

Senator HATFIELD. You do not recognize that as then a valid measure of the competition?

Mr. HAAS. No. The valid measure of competition are the number of people that participate at a sale.

Senator HATFIELD. Of course, then we are looking at the results as it comes back to the Treasury in the bids. You are requesting to reduce the numbers of bids per tract. You diminish your points of a higher revenue realized from that tract; aren't you?

Mr. HAAS. Not by reducing the number of bids.

Senator HATFIELD. If you only have one or two bids per tract you stand less chance of getting a higher rate of return on your revenue; aren't you?

Mr. HAAS. No. Because the people bidding only on two tracts, or only two bids on a tract, it is not very highly regarded by the industry. So I don't see how you are reducing the revenue on that tract. You will recall there was what we call a "junk sale" that was done in July of last year, in which all these sales they had picked up all the acreage that had been turned down in the previous sales and they offered it at

this sale in July. Very little bidding on it. It still had not changed. Some of the tracts had large amounts of money that had been turned in the initial sale were not even bid on.

Senator HATFIELD. Thank you, Mr. Chairman.

Senator JOHNSTON. Senator McClure.

Senator McCLURE. Mr. Haas, I apologize for getting in late. Perhaps you have already touched on this, but one of the things that I think this committee could benefit from your advice on is the methods of bidding, whether we should go to a variable bonus bid with fixed royalty or a variable bonus bid with fixed net profit or fixed bonus bid. What is your judgment?

Mr. HAAS. Senator, I am a representative of the American Association of Petroleum Geologists and we want this to be in our area of expertise. We want to talk to you about facts of exploration for oil and so forth. I have read the testimony that has been going through these committees for the last year or so, and there was a real good hearing on bidding—I can't remember, it was last summer or sometime. I would rather we defer and not make comments.

Senator McCLURE. Thank you very much.

Senator JOHNSTON. Thank you very much indeed. Mr. Haas. The next time you come we will be sure to pronounce your name correctly.

[Subsequent to the hearing Mr. Haas submitted the following answers to questions posed by members of the committee:]

AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS,
April 1, 1975.

HON. LEE METCALF,
U.S. Senate,
Old Senate Office Building,
Washington, D.C.

DEAR SENATOR METCALF: During my recent testimony before your Subcommittee on Minerals, Materials, and Fuels, I was asked to submit for the record the answers to several questions posed by members of the Subcommittee. These follow:

1. What is the membership breakdown on the nearly 17,000 members of the American Association of Petroleum Geologists? (Senator Hatfield.)

Group and percent of total membership

| | |
|-----------------------------------|------|
| Major oil companies..... | 25.4 |
| Other oil companies..... | 24.4 |
| Service companies..... | 2.8 |
| Consultants | 21.3 |
| State and Federal Government..... | 4.9 |
| Professors and teachers..... | 5.7 |
| Mining companies..... | .3 |
| Students and nonoil industry..... | 12.3 |
| Employment unknown..... | 3.2 |

2. Please critique the procedures involved in frontier-area oil and gas potential assessments. (Senator Johnston.)

Refer to the authoritative *AAPG Memoir 15*, Volume I, pages 1-34 on estimating potential reserves. Pages 22-26 are devoted to the problems of estimating potential reserves and outline one common method of assessing the undiscovered hydrocarbon potential of a frontier area:

(a) Determine the sedimentary volume (cubic miles) in the frontier area.

(b) Multiply this volume by an appropriate yield factor (barrels per cubic mile) determined in a known producing area that looks geologically similar. This gives an estimate in barrels.

Memoir 15, however, notes the chief problems and uncertainties of this method:

(a) The extremely incomplete geologic knowledge of the frontier area before drilling many wells.

(b) The resulting extreme difficulty of selecting a look-alike area that is truly similar in all critical aspects.

(c) The difficulty of determining the ultimate amount of production even in the known area, since new discoveries and enhanced recoveries are constantly changing and are difficult to predict quantitatively.

The crux of the problem is that no two areas are geologically identical; and the chances for producible oil are dependent on three basic factors that must coexist in adequate quality, quantity, and geologic timing:

(a) An organic-rich source rock to generate hydrocarbons.

(b) A porous reservoir rock to store the hydrocarbons and allow their recovery.

(c) A trap to catch the hydrocarbons in commercial quantities.

Because none of the factors can be predicted with certainty before the drilling of many wells and because inadequacy of any one of them results in no hydrocarbons, there is always a risk that the frontier area will contain no commercial production whatsoever:

(a) Failure to account for this risk is one of the main causes of over-optimistic estimates and of the wide diversity in estimates.

(b) Therefore, resource appraisals of frontier areas should be given as ranges of probable values that reflect the uncertainties, including a geologic estimate of the chances that there will be zero commercial hydrocarbons as a result of inadequate source, reservoir, and trap.

(c) Such risk-weighting is the indispensable step (often omitted) that keeps estimates within realm of reality. The one overwhelming fact in oil and gas exploration is that most prospects are dry.

3. Why is the means of measuring competition used in Section III of the National Ocean Policy Study, "Analysis of the Department of the Interior's Proposed Acceleration of Development of Oil and Gas on the Outer Continental Shelf" Committee print prepared for Senators Magnuson and Hollings not a meaningful comparison? (Senator Hatfield)

Meaningful comparisons imply completeness; this comparison was by no means complete. It indicated four facts as evidence of reduced competition:

(a) Fewer bids per tract.

(b) Fewer dollars bid per acre.

(c) An increase in tracts receiving one bid.

(d) An increase in the percent of total bonus that is associated with one-bid tracts.

Totally ignored by the analysis is the concept of potential and value. Both sales isolated for study by the staff occurred in areas of previous recent sales.

Acreage with more potential was sold earlier; this is particularly true in Louisiana. Additionally, the area of the May, 1974, sale in Texas is a relatively poor geologic area as evidenced by the fact that 50% of the leases offered received no bids at all. The October, 1974, sale area in Louisiana, in addition to a scattering of low-potential tracts, carried a sizable number of deep-water tracts also in an area of limited geologic potential. Many small companies have neither the technical expertise nor the capital to attempt drilling and producing in deep water. Majors will only play deep-water acreage where the geologic potential is great. The result, fewer bids!

Finally, both areas of the subject sales are more gas prone; this is particularly true of Texas. Per-acre value is sharply reduced in an economic analysis inasmuch as gas has not been allowed to reach a parity with oil.

It is meaningful that the staff chose to ignore the July, 1974, sale. It is commonly called the "junk sale" and sharply emphasizes the outcome of a low-potential offering. For example, 81% of the tracts offered in this sale received no bids at all.

A reduction in the number of bids per tract on the average can be partly the result of the important effect of poor geologic potential and partly the result of the economics associated with high-risk (deep-water) environments. Both can produce fewer bids by industry. The Federal Government should not be surprised if there are few bidders in the hostile environment of the Gulf of Alaska. Not many companies can afford the risks in this area.

Finally, Mr. Chairman, you were disturbed about the assessments and tract evaluations of the USGS in the OCS. These assessments and evaluations are of no surprise to us who understand the problems involved in making such estimates. Frankly, the members of the committees of Congress are pressuring the USGS

for definitive answers to unsolvable problems. This wide range in estimates is inevitable because different methods are used in an attempt to solve an unsolvable problem.

I would be most happy to answer any further questions on behalf of the American Association of Petroleum Geologists.

Yours sincerely,

M. W. HAAS.

Senator JOHNSTON. Our next witness will be Carl H. Savit, president of the International Association of Geophysical Contractors.

Mr. Savit, I have gotten about halfway through your statement. I hope you can summarize it. I particularly like the part in there about when you are on the ship and calling in and giving orders on the spot with a tool at 10,000 feet.

Proceed as you wish. I hope you can summarize because we are short of time.

STATEMENT OF CARL H. SAVIT, PRESIDENT OF THE INTERNATIONAL ASSOCIATION OF GEOPHYSICAL CONTRACTORS

Mr. SAVIT. Mr. Chairman and honorable members, I will try to summarize at least in part on this statement. The statement was prepared for oral presentation with the expectation of a considerably greater amount of time. Since there is less, I shall simply refer to some of these items and allow them to go into the record, if you will allow that.

I am Carl H. Savit, president of the International Association of Geophysical Contractors, on whose behalf I am appearing today. Our association is supported by organizations which carry out more than 90 percent of all the geophysical exploration for oil and gas in the free world. We perform well over a billion dollars worth of service to oil companies and other entities each year. We are very much concerned at the moment because we see an impending hiatus in regulations which has already begun by reason of regulatory and legislative processes. As an example, and as I have mentioned in the statement, in June of last year there were 38 seismic exploration ships working on the Outer Continental Shelf of the United States.

Senator JOHNSTON. How many?

Mr. SAVIT. Thirty-eight. At the end of February, for which we have the most recent statistics, there were only 24. Some of this decline is admittedly seasonal, but a large part of it, may be attributed to the departure of vessels to foreign waters or to the laying up of the vessels because of the uncertainties and possibilities proposed by regulation and proposed regulation.

Senator JOHNSTON. These are the geophysical ships?

Mr. SAVIT. The geophysical exploration ships. There is a monthly survey carried on at the request of the Federal Energy Office, and I am using figures that are put out on behalf of that agency.

In the hope we can begin a bit of communication between our organization and the Government, and we have been perhaps very much at fault in not communicating more closely with Government agencies and with the Senate and Congress, I would like to point out that the geophysical contractors are the voting members of the International Association of Geophysical Contractors organizations, are not oil or gas companies, we do not participate in any way in the production of any oil or gas we may discover.

The unwritten, but rigidly adhered to, code of ethics of our profession prohibits our companies, the officers of our companies, or our professional employees from direct or indirect ownership of oil or gas rights. When we work for a client, we may not disclose our findings or any aspect of our client's activities. When we work for our own interest, we sell copies of our results to interested parties, including, until recently the USGS, under proprietary agreements, but we ourselves do not use those results, nor are we ever bidders for OCS lands, or for any other oil or gas lands.

When I describe to people outside the industry the fact and details of the existence of geophysical contractors, I am invariably asked, "Why don't the oil companies do their work themselves? Why do they have you do it for them?" In answering these simple questions, we come to the heart of the problem of understanding the whole industry, and of the misunderstanding that apparently underlies much of the polemics of recent months.

Underlying every step of the oil and gas exploration process is the factor of uncertainty or, perhaps more aptly, unpredictability. Exploration is inherently a venture into the unknown. If we set out to cross an unknown land, we cannot predict how long it will take, what equipment we will need, how many miles we will travel, or for that matter, whether we will make it at all. In the same way, if we begin an oil or gas exploration program, we can only plan in a general way what we intend to do.

The oil companies are organized to hang loose and to adapt to changing situations. To this end, the exploration department of an oil company consists primarily of management, analysis, and decision-making personnel. All, or nearly all, of the actual work of exploration is carried on by a bewildering array of contractors, consultants, service companies, and suppliers. The oil company operates by selecting and directing a suitable group of contractors and others for each phase of each task. More often than not, the nature of the task, and hence the composition of the group, will have changed markedly from beginning to end of a single exploration project.

Myriad examples can be given to illustrate the problem, two or three will serve to make the point. Typically, after a reconnaissance seismic survey conducted on a more or less geometrical grid, an oil company will find an ambiguous situation in one part of the survey area; the data can be interpreted in more than one way—

Senator JOHNSTON. Let me cut you off there, if I may. I have read your entire statement. By the way, I found it to be most excellent. We want to get some questions in so we will not run out of time for the questioning.

You have stated in your testimony that if you measure the efficiency of these Government-owned oil companies by the number of employees per barrel of oil produced, that private companies are several times more efficient. Do you have a comparison anywhere of that? I have been saying that, but I don't have anything to back it up.

Mr. SAVIT. Well, I feel constrained to avoid mentioning specific companies since we work for them. If we would like to continue working for them, it would not do too well. But we know that one national oil company has one employee for every three barrels of oil per day, and this is one of the very large international oil companies.

Senator JOHNSTON. Would that be the Italian Oil Co.?

Mr. SAVIT. I decline to answer the question on the grounds the answer may tend to incriminate me.

Senator JOHNSTON. Where could we find that information?

Mr. SAVIT. From the companies themselves. We can look at the production figures they advertise and the number of their employees. The best one of which I know of these national oil companies produces about 10 barrels per employee per day. Any one of our private U.S. companies will do vastly better than that.

Senator JOHNSTON. Now, Mr. Savit, I think that part of your testimony, where you were describing the ship out there and you had to change plans and didn't have time to put out bids for these things is very important. Give us a fill-in on that testimony a little bit.

Mr. SAVIT. For a very, very simple situation where we have lost track of where we are on ship, because power has gone out and our navigation system stopped for a while, and we have to start over again, we typically call up on the radio-telephone and have somebody fly out a position. An airplane with a navigation systems comes out, flies over, radios down where we are and we can take off. We may have a prearrangement with some of these companies, we may not. We may be in an area where the best available outfit to fly out, or the only available outfit is one we have never dealt with before. But the situation is, they will fly out and send us a bill. This happens at every stage of the game.

One of the more interesting examples of that happened several years ago in which we had a very large project on which we had been bidding, the company I worked for had been bidding, against various other companies to do a major survey in Alaskan waters. The oil company group that we were contracting were having a bit of difficulty getting permission from various State agencies, agreements from fisheries and so on, and when they got all these approvals, it was 2 or 3 weeks after the last possible moment to get things started.

The exploration manager of the oil company called us on the phone and said, can you still do it? Our man said, yes, I think we can, if you can give us an OK on the phone. So, he did, and long distance calls started, we started modifying ships for ice work within 3 hours and getting them ready to go up to Alaska from the Gulf of Mexico.

We did \$1,250,000 worth of work on that particular project before a single piece of paper was exchanged.

Senator JOHNSTON. All by telephone?

Mr. SAVIT. Yes.

Senator JOHNSTON. This is typical, to have to make decisions regarding tens of thousands of dollars on the spot, and sometimes your decisions are wrong and you are—like on the North Sea, they had to have the big ships standing by to haul some big piece of equipment out there for one of the rigs and they had it standing by days on end at something like \$70,000 a day rental, waiting for the weather to get right. If they missed 2 weeks of bad weather, there is a lot of water down the drain.

That is rather typical; isn't it?

Mr. SAVIT. I spent a rather unconscionable amount of my own time on ships spending thousands of dollars an hour doing it. We have read of Mr. Red Adair and his crew which stands by all the time and is

ready to come and put out an oilwell fire. Those things don't happen very often, but when they do, they are expensive and have to be taken care of.

Senator JOHNSTON. If the Federal Government were in this business and were calling on someone and saying "stand by at \$70,000 a day for your ship," and it turned out they wasted \$2 or \$3 million of Federal funds, the taxpayer would not take too kindly to that; would they?

Mr. SAVIT. The taxpayer would not take too kindly and the contractor would not do it. There is no way I would permit any part of our company to expend part of our funds on the basis of a verbal assumption from anybody in the Federal Government.

[Laughter.]

Senator JOHNSTON. Especially politicians.

Mr. SAVIT. Well, the politician doesn't authorize any work.

Senator HATFIELD. Doesn't perform any, either.

Mr. SAVIT. This is based on direct personal experience of once burned, twice shy.

Senator JOHNSTON. You said you are not selling data to the USGS anymore; why is that?

Mr. SAVIT. The USGS has issued, shall we say, a dictum, to the effect that permittees operating on the offshore must turn over their data to the Federal Government without compensation. And since this is our stock in trade, this is what we sell, there is some resistance to the legal processes now beginning to challenge the Department of the Interior's rights to take away that which we produce. It is the sort of thing that—you know, any transportation company would balk at being required to carry the Federal Government's employees for free, or any supplier of any goods on the Federal lands would hate to supply his goods to the Federal Government without charge. That is one of the reasons there has been a decline in surveying, too. If the Government has the right to take your product away without paying for it, why do it?

Senator JOHNSTON. Let me ask you one final question.

In your conclusions you said we ought to open up frontier areas to leasing. Now, the Interior Department some time ago had plans, which have since been canceled, to open up 10 million acres. Now, in the early part of your statement you talked about you had 38 rigs or ships operating just not too many months ago and now that is down to 24.

My question is, Do we have the exploration and development equipment to handle a huge number of acres, perhaps not 10 million acres, but to handle the opening of the Baltimore channel, for example?

Mr. SAVIT. Speaking for our people, at least, I believe that we do have the equipment to expand very greatly the amount of exploration that is being done. The point, of course, is that it has to be on a basis that we can get paid for what we do. We don't work for free normally, and if the inducements presented by foreign areas are much greater than those presented by domestic areas, or if the risks in the foreign areas are lower, then we will go in the foreign areas. That is what has been happening recently. The British apparently debated long and hard about how they were going to handle their offshore management, and finally decided to—apparently at least—to construct their tax and management rules on such a way that people can operate. So a lot of ships have left the United States and gone to the North Sea. There are

other areas in the world where the adjacent countries have decided that the most important thing is to get the fuel and get themselves some fuel independence, and they can put aside their political disagreements for the time being pending that kind of operation. In those areas the climate is quite conducive to operations, and that is the kind of area that attracts the itinerant surveyors that we are.

Senator JOHNSTON. I said that was the final question, but let me ask you one more.

Why doesn't the U.S. Government contract with you? You have the expertise. Why couldn't we contract with you and say go out and explore on that Atlantic coast or the Gulf of Alaska, tell us what we have so the taxpayers will be assured when we put those areas out for leasing they will not be ripped off?

Mr. SAVIT. The Government can certainly do it. The Government does not have the flexibility or the management structure to do it efficiently. I think I have talked about how the Soviet Union does it in my prepared statement—

Senator JOHNSTON. And it costs 10 times as much?

Mr. SAVIT. I think only eight. But the basic thing is if you make a plan ahead of time and stick to it, regardless of what comes up, you cannot change the circumstances, you are going to do an awful lot of unnecessary work and refrain from doing a lot of work you should do.

Senator JOHNSTON. That is rather typical, to have to change your plans right in the middle of the operation?

Mr. SAVIT. That is much more typical than not, that plans have to be changed constantly.

There is another factor involved, too. The competition among the various members of our organization is partly on the basis of price and partly on the basis of quality. The quality of results is something that at the present stage of our knowledge and ability defies exact definition. It is the kind of thing that an intelligent person who is skilled in the art can look at the work of two different contractors over a period of a month or two and say, "Yes, this work is generally better than the other." Some of our members in our organization consistently bid high on all jobs and still continue to be chosen very, very frequently and stay in business. Others consistently bid low and stay in business.

The Government, in its method of handling bidding cannot take any kind of cognizance of what I would call evaluation quality. If you cannot put down on paper how you measure the difference between one value and one kind of seismic survey and the other, the Government cannot make their choice on the basis of just inherent quality. It has been demonstrated over and over again.

So the result, I think, of Government contracting to do all the work would be that the higher quality and the newer technologies would go overseas where the higher quality could be sold for a higher price.

Senator JOHNSTON. Thank you very much indeed, Mr. Savit. I wish we could continue longer.

Senator McClure.

Senator McCLURE. You did deal in your prepared statement with the comparison of costs in exploration under the competitive system

that exists here and the costs of exploration under Government controlled situations elsewhere. I would like you to bring that out now, if you would, in regard to the comparison that you made in your prepared statement. I think you made some reference to the comparisons some 13 years ago of similar work done in the Soviet Union.

Mr. SAVIT. The Soviets did publish once—and they have never done it again as far as I know—the figures for the total amount of seismic or geophysical surveying done in the Soviet Union that year. The total number of people involved, the total number of crews, it was in quite a bit of detail. In that year we were able to make a direct comparison, and the comparison was made with the activities of my own company ships that I had access to the records of.

We found that the number of miles of survey performed per 100,000 man-hours was eight times greater for our company than it was for the Soviet Union. There were quite a number of other comparisons made, but I simply summarized.

I have visited the Soviet Union four times in the last 4 years. Some of my colleagues have also visited the Soviet Union, some of us have visited field operations. We tend to read a number of publications of the Soviets. We believe that a ratio of this kind still prevails, from watching the way the surveys are done and the way the operations are done.

Senator McCLURE. As I would summarize from what you have said, a Government program of exploration would probably call for predetermined mixes of information which could not be varied to suit the circumstances at a given tract?

Mr. SAVIT. That's right. You need the kind of—in order to do a reasonably good job of exploration and hope to get results—you need to be able to hang loose, as I said, before, to adapt to the situation. And also to be awfully bullheaded. I think the best example is the Alberta Basin in Canada. The industry over a period of 17 years drilled 151 dry holes. Now, any Government agency looking at that sort of a situation would have stopped long before that and certainly not gone on that far. But competitive organizations, because each had its own special idea of how to find oil, tried, and they kept on going. The 152d hole found a great deal of oil, and as we all know, the Alberta Basin is one of the most productive oil provinces of the Western Hemisphere.

Senator JOHNSTON. 151 dry holes?

Mr. SAVIT. According to my recollection, that is it.

Senator JOHNSTON. At about what cost?

Mr. SAVIT. I have not the vaguest notion.

Senator McCLURE. I think it would be safe to say before we got to 151 the Government would have stopped, if the Government had been involved in it, or would have laid out 300 holes that would have missed everything. One or the other. [Laughter].

Mr. SAVIT. You said it, sir, I didn't.

Senator JOHNSTON. I would say the latter is more likely.

Senator McCLURE. I think your statement is very persuasive of the need for flexibility and the difficulty of getting flexibility into a Government contract or Government contracting procedure. I don't know how in the world you would ever formulate a contract which would allow the judgment calls to be made.

Mr. SAVIT. The real problem, I think, is that contracts are administered by contract administrators, and I distinctly remember one time in working on a Government contract and being in charge of our part of things, being kept at my office then in California very late one Friday night dealing on the telephone and telegraph with a contracting officer on the east coast who must have been close to midnight by that time, who was trying to get me to agree to adopt a new clause in the contract because it had to be renewed by midnight that night, or something like that, to work on monitoring a hydrogen bomb test in the Pacific.

It turned out he was getting all the 80 subcontractors to agree to a new clause in the contract, about a 20-page clause, which was exactly the same as the old one. It seems that the old clause had two versions. One for the Navy and one for the Army, and a revision was issued that said that all the clauses would now be the same as the Army clause. We had an Army contract. So there was no change at all. I could not persuade him of this. We had to go through the whole rigamoro. Not a single comma was changed.

This kind of thing is not the kind of thing that promotes flexibility.

Senator McCURE. I think you make your point very well. Thank you.

It should be noted that your entire statement will appear in the record.

Mr. SAVIT. Thank you very much.

[The prepared statement of Mr. Savit follows:]

STATEMENT OF CARL H. SAVIT, PRESIDENT, INTERNATIONAL ASSOCIATION OF
GEOPHYSICAL CONTRACTORS

I am Carl H. Savit, president of the International Association of Geophysical Contractors, on whose behalf I am appearing today. Our association is supported by organizations which carry out more than 90 percent of all the geophysical exploration for oil and gas in the free world. We perform well over a billion dollars worth of services to oil companies and other entities each year.

Our members are deeply concerned over the implications of current federal regulations and proposed legislation insofar as present and proposed action would profoundly affect the American way of life.

A year ago, we were all charged up in view of a clear national purpose and intent to expand domestic energy production to achieve relative independence from foreign sources in the near future. We and our clients expanded our activities on the OCS to the point that we had 38 seismic exploration ships working in June of 1974. In the intervening 9 months, we have seen the promulgation of rules and the introduction of bills which would or could prevent us from conducting our normal activities, and which would remove all value from our stock in trade, our accumulated survey data. During that same time, the reduction of the number and interest of our customers, and the increased risk of taking data for later sale, have produced a more than seasonal decline to 24 ships at the end of February 1975.

A study of S. 426, S. 512, and S. 740 reveals a common set of purposes, particularly with regard to protection and management of the coastal zone and the environment, and to our increased rate of discovery and production of domestic energy sources, with particular emphasis on the oil and gas resources of the Outer Continental Shelf.

We geophysicists cannot claim expertise in matters of coastal zone management, but we are well versed in the exploration and discovery parts of oil and gas energy production. It is from the vantage point of our long involvement that we are filled with apprehension over the way these bills (and others) appear to be written without reference to the realities of resource exploration and discovery.

In all probability, the fault, if fault there be, lies with us and with our associates in the oil and gas industries. We have not conveyed to Congress and to

the public the nature and essence of our industry, the reasons for our industry being organized the way it is, and the consequences of alternative modes as we have seen them implemented in some other parts of the world.

GEOPHYSICAL CONTRACTORS

In the hope that it is not too late to open a channel of communication, I should like to begin with a description of the organization of the exploration and related parts of the oil and gas industry. To begin, I point out that geophysical contractors, the voting members of the International Association of Geophysical Contractors, are not oil or gas companies. We do not participate in any way in the production of any oil or gas we may discover.

The unwritten, but rigidly adhered-to, code of ethics of our profession prohibits our companies, the officers of our companies, or our professional employees from direct or indirect ownership of oil or gas rights. When we work for a client, we may not disclose our findings or any aspect of our client's activities. When we work for our own interest, we sell copies of our results to interested parties, including, until recently, the USGS, under proprietary agreements, but we ourselves do not use those results, nor are we ever bidders for OCS lands, or for any other oil or gas lands.

When I describe to people outside the industry the fact and details of the existence of geophysical contractors, I am invariably asked, "Why don't the oil companies do this work themselves? Why do they have you do it for them?" In answering these simple questions, we come to the heart of the problem of understanding the whole industry, and of the misunderstanding that apparently underlies much of the polemics of recent months.

UNCERTAINTY AS A WAY OF LIFE

Underlying every step of the oil and gas explorations process is the factor of uncertainty or, perhaps more aptly, unpredictability. Exploration is inherently a venture into the unknown. If we set out to cross an unknown land, we cannot predict how long it will take, what equipment we will need, how many miles we will travel, or for that matter, whether we will make it at all. In the same way, if we begin an oil or gas exploration program, we can only plan in a general way what we intend to do.

The oil companies are organized to "hang loose" and to adapt to changing situations. To this end, the exploration department of an oil company consists primarily of management, analysis, and decision-making personnel. All, or nearly all, of the actual work of exploration is carried on by a bewildering array of contractors, consultants, service companies, and suppliers. The oil company operates by selecting and directing a suitable group of contractors and others for each phase of each task. More often than not, the nature of the task, and hence the composition of the group, will have changed markedly from beginning to end of a single exploration project.

Myriad examples can be given to illustrate the problem; two or three will serve to make the point. Typically, after a reconnaissance seismic survey conducted on a more-or-less geometrical grid, an oil company will find an ambiguous situation in one part of the survey area; the data can be interpreted in more than one way. Or, as frequently happens, the first exploratory drilled well in the surveyed areas yields results which were not predicated by the seismic (geophysical) survey. Today the responsible person in the oil company picks up the phone and calls one or two geophysical contractors whose ships are operating in the area. The conversation might go like this:

Oil Co.: "Hello, Joe, this is Harry. Can you let me have a 49-trace crew with a mile-and-a-half cable right away for a couple of days' work in the south ABC area?"

Contractor: "Gee, I'm sure sorry, Harry, I haven't got a 48-trace crew within 5,000 miles, but I've got one with a 2-mile, 96-trace cable that I might be able to break loose for you for a couple of days. The outfit were working for out in ABC might be happy to turn loose of the crew for a few days. It'll give them time to work up some new program."

Oil Co.: "That'd be O.K. I don't mind the extra power at all, it might be useful. How soon can you let me know?"

Contractor: "If the right man is in at the other outfit, I can be back to you in 15 minutes; I'll let you know either way before lunch."

Typically, after two more phone calls, the deal is made. Within hours, the navigation subcontractor and any other subcontractors involved are informed: orders are placed with several suppliers, and permits and port facilities are applied for. Radio messages go out to the ship, and all is ready for the transfer of activity and attention.

No procurement was advertised, no tenders were invited, no bids were taken, no contracts were written. Even purchase orders for supplies will follow long after the supplies themselves are shipped.

The geophysical contractor, himself, must also be able to act on no notice to make massive changes in his activities. An unexpected variation in weather, geology, ocean currents, fisheries, or a host of other factors, will require the contractor to make immediate deals with shipowners, navigation companies, equipment companies, and so on. Sometimes the entire transaction takes place over shortwave radio. Paper work, such as it is, usually follows long after the actual work is done or the goods are used.

It is well-known in the oil industry that this ability to respond to circumstantial change permeates every sector of that industry. The driller of a wildcat well always encounters unexpected conditions. It is not unusual that we geophysicists will have supplied information which the oil company interprets to mean that the geological formation he seeks is 8,000 ft. below the surface. The oil man contracts with a driller who has a drill rig capable of drilling to 10,000 ft. Upon drilling to 10,000 ft. and not finding that which was sought, a reinterpretation of the geophysics suggests that the target is really at 12,000 ft. A new drill and drilling contractor are ordered; the desired geologic formation is found—but—there is not a drop of oil in it.

If I speak in some detail of this incident, it is because it really happened, and I was involved in gathering the geophysical information.

A geophysical contractor who calls by radio telephone from shipboard, to order a plane out to calibrate his radio location system after a brief power failure, and the oil company operating supervisor who orders special tools and services to recover a drill bit and 1,000 ft. of drill pipe broken off in the bottom of a 20,000-ft. hole, have something in common. They have the authority to make an on-the-spot decision based on their best judgment of the local situation. When they act on those decisions, their companies will back them up. In addition, they know that there are thousands of specialized service and supply companies geared to handle one or more types of special situations, and that those service and supply companies are ready to react upon little or no notice. A check of the yellow pages in any oil town will show that oil industry service companies are on call day or night 365 days of the year.

GOVERNMENT AS EXPLORER

The picture that I have thus far painted is clearly one that is not in any way compatible with government operations. Our government agencies are prevented by law from making the kinds of business deals that I have described.

I shall not dwell on another, and important, advantage that the oil-company operating supervisor or manager enjoys, namely, that he can give weight to qualitative, intangible differences in the services he buys. He can select his contractor on the basis of unspecifiable competencies that make some people and organizations better than others at doing complex things.

Governments and government corporations have, however, been explorers in other lands. It might be well to look at their solutions to the problems of coping with uncertainty. In cases where government oil companies have been set up in the free world, they have by and large started quite slowly and on a modest scale, and sooner or later have modeled themselves after a typical private oil company, or else have contracted with private oil companies to perform all the usual oil company services. Where these companies have set themselves up as operating companies, the time scales to achieve even a modest measure of success have been tens of years. Most of that time was needed to build up an expert managerial cadre and to settle on a reasonable working system.

If we measure efficiency of these companies on the basis of number of employees per barrel of oil produced (or, for that matter, on any other objective basis), private companies are several times more efficient. At least part of this difference is attributable to differences in the ability to react to the unexpected.

When, for example, a semisubmersible drilling vessel is required to stand by one day longer than necessary, the extra cost is 30 to 50 thousand dollars. It does not take many such slowdowns to bring the aggregated costs into the

millions. Perhaps most important, the finding of necessary domestic fuel resources is inexorably delayed. In the meantime, we must spend ever more of our foreign exchange for more imports.

In short, then, the first alternative to a system of quick response to the unexpected is to wait for slower processes to be carried out. The price is higher cost and longer duration of the program. Hence, the final product, the fuel, is gotten later and at higher cost.

In the Soviet Union, the solution to the unexpected is to act as if it did not exist. Everything is planned in detail, and the plans are carried through without substantial change. The result, of course, is massive inefficiency on a scale which most Americans cannot believe. The last time the Soviet Union published actual figures of geophysical exploration was about 13 years ago. We were able to make a direct comparison for that year of the number of miles surveyed per 100,000 man-hours in the U.S.S.R. and by a typical contract company in the U.S. The ratio was eight-to-one. It took the Soviets eight times as much labor to survey a mile of line as it did us. My personal observations, and those of my colleagues who have recently visited the U.S.S.R., tend to confirm a similar ratio in this decade.

I shall make no comment on the relative quality of the survey results. It is easy to attribute at least part of the inefficiency of the Soviet geophysical surveying effort to the inability to adapt techniques, vehicles, survey densities, etc. to unexpected conditions.

Comment on the consequences of closed-end planning, without provision for adaptation to circumstances, would hardly appear necessary, except to point out that exploration, by its very nature, must be an endeavor which inherently encompasses a maximum load of the unexpected.

PROPOSED BILLS

As previously noted, all three bills upon which we have been invited to comment propose an increased United States Government involvement in OCS exploration. Two of those bills would provide, or at least authorize, a direct government participation in exploration. It should be clear that to bring such plans to fruition will inevitably introduce a great delay and additional costs into the entire process of finding new fuel resources. Decisions will have to be made whether to change U.S. law to allow the kinds of business transactions that I have described. The alternative is to require the entire system of large and small contractors, consultants, subcontractors, and suppliers to change the way they do business with their ultimate customers and with each other. A system of inter-relationships and communication, which for over a century has been changing and evolving to reach maximum efficiency, will have to change abruptly. The consequences of such a change will be felt for decades.

DIRECT PATHS TO THE GOAL

We who form but a small part of the oil and gas exploration industry would like to make a few modest proposals. We think they will accomplish the purposes of all the proposed bills and will, at the same time, preserve the livelihoods of the hundreds of thousands of people who work in the oil and gas industry.

1. Open up some of the frontier areas to leasing, under a modification of the present system.

2. During the pre-leasing period, while the geophysical surveying is being done, impact statements are being argued, lease blocks are being nominated, etc., require the adjacent state to specify which areas of coast, wetlands, beach, etc. are to be kept in a non-industrial status, and which areas would be open to industrial development under specified conditions. At the same time, all special provisions concerning protection of wildlife, aesthetic values, water quality, etc. can be formulated by appropriate federal and state agencies.

3. When the blocks are put up for bid, make all leases subject to such special provisions. The bidders would then be able to factor the costs of compliance into their bidding.

4. Compensate the adjacent states for their expenses associated with providing industrial sites, municipal services, etc.

We believe that to proceed along these lines will result in the realization of all the stated objectives without undue delay and without producing massive unemployment. The hope as implied, at least in S. 426, that completion of exploration as a first step will enable adjacent states to plan, is, we believe, illusory in

that the required degree of exploration is a highly variable quantity, i.e., a sizeable amount of exploration may discover little or no oil, while a single addition well may prove out a major find. On the other hand, we can hardly believe that the American people would suffer waiting in gas lines at service stations while a single state held up production on a major field in order to preserve its own special coastline. In fairness to all, the coastal state should be able to set its requirements independently of whether oil is found offshore or not.

Thank you again for this opportunity to participate in the legislative process on so important an issue. Our members and I stand ready to provide any assistance which your Committees and their staffs may require. We especially invite you and your staffs to attend the Offshore Technology Conference in Houston, May 5th through 8th, 1975, where you will be able to see a small sample of the products of the bewildering variety of organizations which make up the oil industry.

Senator JOHNSTON. You have been very helpful to the committee.

The next witness will be Mr. D. G. Couvillon, on behalf of the Western Oil & Gas Association.

STATEMENT OF DUDLEY G. COUVILLON, VICE PRESIDENT OF STANDARD OIL CO. OF CALIFORNIA AND MEMBER OF THE COMMITTEE ON PUBLIC LANDS AND OFFSHORE DEVELOPMENT, WESTERN OIL & GAS ASSOCIATION, ON BEHALF OF THE WESTERN OIL & GAS ASSOCIATION, ACCOMPANIED BY W. E. CRAIN AND T. S. YANCEY

Senator JOHNSTON. I hate to cut you short, but we have got the same time restrictions we have talked about before. I hope you can summarize your excellent statement.

Mr. COUVILLON. We anticipated this after developments yesterday. We prepared a very concise summary.

I have with me Mr. W. T. Crain and Mr. R. S. Yancey, both of whom are very experienced in expert matters and will assist me in answering any questions you may have.

The summary is extremely brief and it states a list of conclusions. But it does indicate the drift of our thinking and we do attach some importance to indicating our thoughts on some of the matters other than those that have been emphasized here today, based on our auditing some of the hearings prior to today.

There are some other matters of distinct concern to us. There are also some other matters where we try to be supportive in our attitude in furthering the objectives of these bills.

No. 1, in the points summary, in our opinion, the new procedures established in these bills will seriously delay resumption of OCS leasing and exploration, and even more so the commencement of further production.

In Senate bill 521, for example, the requirement of elaborate surveys to select the most promising areas, the least offensive areas environmentally, develop a leasing program and secure the approval of adjacent States and Congress, will certainly delay these sales for a number of years. And certainly ultimately delay substantially even more so the commencement of badly needed production in the Outer Continental Shelf.

Second, in view of the urgent need to increase domestic reserves and reduce foreign imports, delay is clearly contrary to our national interests.

Third, the proposal for the conduct of OCS exploration by the United States is impractical with no chance of supplying the energy needs of this country. It is well known and recognized that successful exploration results solely from multiple evaluation by many competing operators and large volume drilling. This point has been accurately covered today.

No. 4, several bills—

Senator JOHNSTON. Let me interrupt you before you get to No. 4.

Can't you get useful information with, say, a few holes at a relatively modest expense, or can you?

Mr. COUVILLON. Well, probably not. But Mr. Crain might elaborate on that, sir. We have some very strong feelings on that subject.

Mr. CRAIN. Perhaps I could give some brief historical cases.

If you would like to know the reason why, I could expand on it from there.

To take the North Slope, for example, it took 40 consecutive wells before the largest field in North America was found. Yet there was not—

Senator JOHNSTON. Forty dry holes?

Mr. CRAIN. It was discovered on the 40th. Thirty-nine dry holes. The Navy drilled 26 of them, by the way, in the late 1940's and early 1950's.

Senator JOHNSTON. Who did? The Navy?

Mr. CRAIN. Yes. They also drilled 33 power holes that I didn't include in the 40 figure. So there was a long succession. The reason for this is that there are a lot of geologic trends. And it was a question of sampling these various geological trends until the one that ultimately led to Prudhoe Bay was actually drilled.

Senator JOHNSTON. At that time did they have Pet 4?

Mr. CRAIN. Yes. This was the establishment of Pet 4. This was established in the 20's, but this was a Navy program to develop oil on No. 4.

Senator JOHNSTON. I am talking about, did they know oil was there at Pet 4 at the time they were making the dry holes?

Mr. CRAIN. There is no commercial oil on Pet 4 even now. The indication there would be oil or could be oil was the fact there are numerous oil seeps on the North Slope. So there has always been an indication there could be oil. But to this date there is no commercial oil there.

Now, another illustration, the shelf today, using the most modern technology, of the Nova Scotia Shelf, there have been over 80 dry holes. I would say in all likelihood there is still not any more commercial oil.

Senator JOHNSTON. How many wells are there?

Mr. CRAIN. Eighty-six, I believe is the number I have come up with recently.

I could go on and enumerate these.

Senator JOHNSTON. Name a few more.

Mr. CRAIN. The North Sea, for example, the initial discovery in the North Sea was a huge field in 1959, I think it is 59 or 60 cubic feet of gas. It was not until 1965 that the first discovery was made out in the water. There was a 10-year period in just the Norwegian sector alone where there were scores of wells, I don't recall the exact figure, before the first oil discovery. Just in the Norwegian sector alone, which is a prolific oil basin at the present time.

Senator JOHNSTON. Once you put your drilling ship there and you core and find you have so many feet of lay, what does that tell you?

Mr. CRAIN. You can study geology on the surface and gather data quite quickly, because there is a lot of data at the surface. When you drill a hole you add to that. You add to it in a three-dimensional manner. You study the surface, a geologist, to put together your picture, then you drill your holes. That gives you more information and a three-dimensional picture. So the information you get from a hole is just like a stepping stone or building block to ultimately putting together the final geological picture that will lead to the initial discovery of oil.

In the offshore it is especially difficult because there is no surface information.

Senator JOHNSTON. I think the chief question as to whether the United States as a government should get into the exploration business is whether, at a reasonable price the Government can afford, you can get useful information that is worth the price. Now, I take it your answer to that question is no, that the United States either cannot afford it or the information will not be useful or reliable. If that is your answer, tell me why.

Mr. CRAIN. It would not acquire the diversity of data that the multiple industry approach gives you. They can't test all the trends, cannot perceive all the trends. This is what the multiple industry can do, in a multiple approach by a number of organizations. This is what they can do.

Senator JOHNSTON. What do you mean by a varied number of organizations?

Mr. CRAIN. More than one. One organization, whether it be private industry or Federal exploration program, these, one course, one philosophy. They can't perceive all the trends. The wide variety of companies competing with one another see a great number of trends, see a greater diversity on how oil may occur.

Senator JOHNSTON. The idea is the Federal Government does this exploration and makes the information available to all. Like, for example, the group shoots they have, with the seismic work, why couldn't you have, in effect, group exploration with a drill ship putting the hole down? Why would not that be useful?

Mr. CRAIN. You could do it. I am saying you would enhance your objective, which is to find oil quickly in greater amounts. You enhance your chance by having multiple approaches, multiple theories being tested simultaneously rather than one following the other. Even though the basic data may be the same, the interpretation will vary between companies in different organizations. They will differ tremendously.

Senator JOHNSTON. Following up on that, then; why would it not be useful to get one of Mr. Savit's ships and go out there and sink a hole and say, here is the basic raw information for all of you companies to use in making your lease, and for the USGS to use in evaluating the bids. What is wrong with that?

Mr. CRAIN. Is your objective to find oil quicker, faster, or more, or merely to compile additional information?

Senator JOHNSTON. The objective is, at least my objective, to find as much oil as quickly as possible and in an environmentally safe manner, and at the best cost to the Government.

Mr. CRAIN. I could see where an exploratory well, no matter who drills it, that this information could be useful. But a single well is a very smart part of the geological and geophysical information that goes into the ultimate discovery of oil.

Mr. COUVILLON. To clarify the matter further, Senator; if the drilling were limited to this single geophysical company or exploratory company during this drilling for the Government, then that would be severely deficient in coverage, in supplying necessary information and getting the necessary evaluations on the coverage you now get from multiple operators. If your questions contemplates that as a supplement to the present industry surveys which are presently used in the bonus bidding system, then, of course, as Mr. Crain pointed out, this would be added supplemental information which would be valuable. But taken alone it would be very, very inadequate.

Mr. YANCEY. I just wanted to add with respect to your original question, the one well that is drilled on the prospect will give you invaluable or stratigraphic information, but it would not tell you even though it produced, whether you had an economic oil field there. You might have 50 feet of pay in it, but it might be stacked in a small area. It would be necessary to continue your exploration program and drill a number of stem-out exploratory wells before you could know that you had an economic field that was worth setting a platform on, going to the expense of \$30 million to set an offshore platform.

Senator JOHNSTON. Can the Government acquire useful information, not to give the whole picture, but to give useful information which they can afford which would be helpful to the Government in evaluating leases and helpful to competing companies in formulating their bids?

Mr. YANCEY. They could. They would have the stratigraphic information, they would learn the sequence of rocks, whether the sedimentary rocks are produced or not, the sequence, and how many feet of sediment you have. One test would be helpful.

Senator JOHNSTON. And the Government could afford that? That would not be unduly expensive?

Mr. YANCEY. That all depends. As the doctor has said, it depends on how many feet of water you are drilling this and your wave action. It would be fairly inexpensive, or one hole could run up to the millions of dollars.

Senator JOHNSTON. For example, in the Gulf of Alaska, where you have these marvellous looking structures—we don't know fully what the stratigraphic pattern is. We don't know whether they have oil in them or not. Would it be useful before we put that out to lease, to put a drilling ship out there at a cost of several million dollars, to put a hole in one of the structures? Would that be helpful?

Mr. YANCEY. It would be helpful to the Government.

Senator JOHNSTON. How?

Mr. YANCEY. You would learn, as I mentioned previously, the type of rocks which you would probably encounter in other wells in the direct area or on that particular structure. You might learn if it is productive, also.

Senator JOHNSTON. How would you define, then, what the role of the Government should be in this exploration? Can you give me some sort of workable horseback definition as to how far the Government involvement should be in exploration?

Mr. YANCEY. I would say the involvement ought to be left up to the petroleum industry which has the expertise and the thousands of trained personnel who could more adequately, I think, perform this service for the country.

Senator JOHNSTON. Well, granted the Government would use a contractor, a private contractor, to go out and drill the test wells, and then make that information available to all the competitors before they made their bids. Would that be useful to the Government, to the competitors, and result in more gas and oil being found more expeditiously?

Mr. YANCEY. I don't think it would result in more oil and gas being found because all of the competing companies would be utilizing only one set of data, and if only one company explores a vast area like the Gulf of Alaska, many, many areas could be passed up. Though, with the many companies that are exploring it, the more data you have, the more people that are obtaining it, and the more interpretations that are made of that data, the more oil and gas will be found and more expeditiously, I think.

Senator JOHNSTON. I would like to continue this questioning a good bit longer, but let me turn it over to Senator McClure at this point.

Senator McCLURE. I not in one place you indicate that the industry, as a total, is spending \$1 billion a year in exploration, is that correct?

Mr. CRAIN. Senator, the figure that we have in there refers to the geophysical industry, which does an annual business, both on and offshore, of \$1 billion. These are figures from the Geophysical Contractors Association. Offshore, when you add up the contractor work they do, 38 vessels, you add up the geophysicists who interpret it, the computers and processing centers throughout the industry, both private and public, you will have a figure well into the hundreds of millions of dollars.

Senator McCLURE. The question then should not be one of whether or not the Government acquires useful information, but would the Government acquire information worth the cost?

Mr. CRAIN. Senator, the one thing that, in this regard, I would like to emphasize, and perhaps it came out very clearly through Carl and others, the variety of geophysical contractors, more than one concept, this does a tremendous amount towards the improvement in technology. There is not a technical field today that advanced so rapidly because of the competition between these numbers of geophysical contractors, that Carl Savit represents, and the geophysical research that takes place within the private industry itself.

Senator McCLURE. You have already indicated, and I think it is true, that the U.S. Government could go out there and do geophysical exploration work, seismic or by drilling or otherwise, and acquire useful information. The question I would like to have you answer is whether or not that information is worth what it would cost the Government? Will the Government get back on that investment the amount of money they put in for that investment?

Mr. CRAIN. I don't think it is necessary for them to do it at all, because they can buy any survey—every basin in the world has been shocked in groups and special surveys. They can buy that very nominally. They have vast data for all the basins.

Senator McCLURE. You are not addressing your answer to my question.

Mr. CRAIN. Can they get their money's worth out of it?

Senator McCLURE. Yes.

Mr. CRAIN. They can get their money's worth, but if they went out and did their own geophysical surveys, they would be repeating something already on the open market. That is why I put in the question there.

Mr. COUVILLON. Maybe I can supplement that. I think the answer would be no, taking the matter in its entire context in the sense of is there any need for this information for the Government in the proper administration of OCS operations from the standpoint of realizing the best return and results and so forth. From that standpoint, the industry, the multiple evaluation, multiple seismic surveys, multiple drilling, is the only way to do this job effectively. A slight supplement of information by the Government makes no impression whatsoever on the ultimate result.

So in that sense I would say no cost is justified for the Government merely to have a small amount of additional information to be used in administering the OCS lease operations. If they make that supplemental information available to the industry and the bidders, of course, that adds the sum total of their knowledge and may increase their expertise and guide possible more successful results.

Senator McCLURE. I assume the rationale for the legislation which is offered, and it has been explained by several different people in various ways, but I would summarize it as being that the Government, having that information and making it available to all bidders equally, then, the Government is in a better position, first, to determine which blocks should be put up for lease and, second, to better evaluate the lease proposals that are made by the bidders on the leased plots.

Mr. COUVILLON. Those would be fair conclusions, Senator. That is probably the only useful use of this information.

Senator McCLURE. Is it worth the amount of money that the Government would put in? Would the Government be better able to lease and judge whether the lease is competitive? Would the bidders on the leased blocks be more able to evaluate the lease and, therefore, sharpen their pencils on the bids that they make on the leased blocks?

Mr. CRAIN. I would have to say definitely no. The Government has more data than any single company has on the offshores. They have all the well information, more geophysical information than any single company. So I think just adding it would be gilding the lily.

Senator McCLURE. Is there any other purpose for the Government doing the exploratory work offshore than those that I have mentioned?

Mr. CRAIN. None that I know of. I think it would be totally self defeating.

Mr. COUVILLON. Certainly not under the present system. You are considering some far out systems that we are seriously objecting to. But under the present act the Government has the right of rejection of all bids, for example. To look at all bids, consider them, secure additional information, make any evaluation they wish after the fact, and then make a decision on the award or rejection of those bids. That is virtually foolproof protection for the Government under the system.

Senator McCLURE. If the Government has enough information to evaluate bids—

Mr. COUVILLON. That is, as you mentioned, it helps them to some extent there. But even there the value is not too clear because the Government has the whole bidding system, the prior bidding in an area, the bids on an individual parcel, the bids on adjoining and nearby parcels at the same time. They have many ways of evaluating this as a pure business matter whether a given bid is reasonable or not. There is a vast amount of experience in that process.

Senator McCLURE. You made a comment that the Government has more information than any single company. Is that relevant information?

Mr. CRAIN. Very definitely. All the well information, for example, they have.

Senator McCLURE. That may not bear directly upon the existing leased tract. It may be inferential, but the Government has no seismic information that they have contracted for a precise tract, unless it has been furnished by an oil company to them.

Mr. CRAIN. They have run over the years many of their own survey boats in the airgun surveys in the frontier areas. Many of the basins were identified by them. They also have special surveys.

Senator McCLURE. You are telling me the Government has information which is available which they have acquired under their independent exploration programs? Then you would support this bill that calls for further Government exploration?

Mr. CRAIN. You misinterpreted my statement. I said they have substantial data already. I question whether it is necessary to go out and get additional information since they already have more than anyone else does. We are talking about what is fair market value, perhaps, on leases. We could look at this in a different direction and Mr. Couvillon has in his statement some terms about fair market value, where one might question about whether the industry has been getting fair market returns on their investments.

Senator McCLURE. With the industry bid upon those leased blocks knowing no more about them than the Government does, or do they go out and make their own evaluation?

Mr. COUVILLON. This depends upon the time of assumption that governs the entire operation. If you are referring to where the Government alone would do the exploring—

Senator McCLURE. I am talking about the present system. Does industry rely upon the information which Government has?

Mr. COUVILLON. No, sir, very definitely not.

Senator McCLURE. Why should Government rely upon that information alone?

Mr. COUVILLON. They probably don't. They rely on it as a guide, plus the sum total of other information they have in awarding leases. I think that would be the degree of use that the Government makes of this information.

Mr. CRAIN. They have a different mix of data. They have all the well information. In many areas we don't have any well information. They must supplement it by additional geophysical and geological work.

Senator McCLURE. What it boils down to ultimately, then, is the Government doesn't have all the information which might be pos-

sessed, and that oil companies or gas companies would not drill based simply upon what the Government has. Can the Government acquire enough more information to justify the expense of acquiring that information.

Mr. COUVILLON. Probably not.

Senator McCCLURE. You make a very valid point that the Government would be likely to go along one course and preclude all others. That is not the point I am getting at. The point is whether or not an oil or gas company deciding whether to bid upon a lease is going to acquire some other information? They are going to contract to somebody to give them that information? Could the Government contract with someone to get that information and make it available to the industry so the bids would be more competitive?

Mr. COUVILLON. If the Government wanted to get into vast expenditures in this area to supplement the already voluminous and expertise of the industry taken as a whole, and where you could actually get the value of supplemental information. Basically the companies want their own expertise applied to their information, and while they would accept the information from any supplemental source, the measure of that degree of improvement may not anywhere justify additional costs to the Government in terms of actual results.

Mr. YANCEY. I was going to say that by having this identical information does not necessarily mean it is going to increase competition. What really increases competition is the different interpretations that each company may put on its own data that it has secured on OCS. That is why there is such a wide divergence in sometimes the high and low bids. You might find upwards of—I think during one of the sales in 1974 there was a divergence of \$2.75 billion between the high bid and the low bid. But this accrues to the Federal Government because of interpretation of different companies put on their own data.

If we use just one set of data you might have them right straight across here, your level of bids, depending on how much capital you have to spend.

Senator McCCLURE. There would still be a different interpretation of that data, even if it were standard data?

Mr. YANCEY. If it was the raw data that each company got, it could be. But companies shoot different lines. They don't all follow the same seismic pattern when they are doing their work. This leads to different interpretations you can get.

Senator McCCLURE. One of the bills suggests that the Outer Continental Shelf Lands Act be amended to provide different methods of leasing OCS lands: A variable bonus bid with a fixed royalty, or fixed bid with a fixed net profit share, or a fixed bonus with a variable profit share bid. Would you have any comment as to which is the better method of leasing from the standpoint of the Federal Government?

Mr. COUVILLON. That is a very difficult question.

Senator McCCLURE. We are being asked to answer it.

Mr. COUVILLON. We did volunteer a comment on that in our brief statement, as you may have noticed, which says in essence that from the standpoint of Government realization, maximizing the whole operation for the benefit of the company, the present system is probably the best. It is subject to one serious concern, and that is the amount of money going into bonuses rather than exploration when it is so

sorely needed, such as at the present time. If there was some appropriate system that could be developed to allow this bonus money to be used in drilling operations, rather than going into the Treasury, then from the standpoint of successful and maximum exploration we think that would be a valuable step to take, such as continuing the present bonus bidding system with a provision for deferring actual payment of the bonus with a credit against that payment of all drilling, stipulated drilling, done on the lease, within a stipulated amount of time, which would certainly encourage exploratory operations and possibly encourage additional operators to get into the action which has been a general concern.

Senator McCURE. Would a shift away from the bonus bid in favor of one with a variable royalty get away from the front end cost of the bidding system, and would this enhance more competition in the bidding?

Mr. COUVILLON. The problem with that which we alluded to briefly in our statement and has been pointed out many times in the past, is that it discourages maximum exploration and complete and thorough exhaustion of reserves in any given reservoir. The economic question comes in as a barrier at an earlier date with a result that where an excessive royalty or not profit is bid the operator cannot afford to continue operation beyond a certain point with the result that a very, very substantial part of the reserves could be left in the ground at a time what that is not wanted.

Senator McCURE. We could do like the majors do now, and that is turn it over to the stripper operator after they have gotten the major supply out of the field.

Mr. COUVILLON. In OCS that might be a difficult thing to do in view of the unusual risk and expense of operating out there.

Senator McCURE. We have never tried it.

Mr. COUVILLON. There is always the possibility of agreements between a large operator and another operators who might want to carry on at a given point. But under the circumstances we are assuming, I can't think that would offer much of an opportunity for relief.

Senator McCURE. One of the things that concerns me is while these higher income arrangements—whether they be bonus bids or higher royalties or a fixed share or variable share of the fixed profits—looks good to the Treasury in the short run, it is a cost consumers are paying in increased cost for the goods, certainly. There is no free lunch. If we get the money into the Treasury by that route, we are extracting it from the consumers in the price of the products they are consuming.

Mr. COUVILLON. The Treasury has other means for getting the income. They should not penalize the energy search.

Senator McCURE. There are those that say they are just asking them to pay the fair share. I don't know what the fair share is. That is always something that hits somebody else harder and myself less.

Thank you, Mr. Chairman.

Senator JOHNSTON. Senator Stone.

Senator STONE. No questions.

Senator McCURE. One further question, if I might?

Is it possible that the Government could involve itself in a limited exploration program without drying up or reducing the amount of private exploration?

Mr. COUVILLON. It depends on the type of operation contemplated. In the way of securing information to disseminate to the bidding public?

Senator McCLURE. Yes.

Mr. COUVILLON. Yes; to a degree that would be something that might help the accumulative knowledge of the bidders, and particularly some of the small operators, perhaps.

Senator JOHNSTON. Thank you very much, Mr. Couvillon, Mr. Crain, and Mr. Yancey.

Mr. COUVILLON. I had a few other points to mention.

Senator JOHNSTON. My problem is we want to give you as much time as possible, but I have a man who was not only born in Louisiana but one who votes there to follow you. But go ahead.

Mr. COUVILLON. This will be very brief.

Several bills proposed giving the coastal States a strong voice in the decisionmaking process regarding OCS lease sales, exploration, and development. These States have a legitimate interest in the operations and are entitled to advance information and an opportunity to express views and make recommendations. Some of these bills go further and give the States veto power over OCS operations. In view of the national interest in domestic self-sufficiency, however, we doubt that such vital decisions should be surrendered completely to the coastal States.

On the other hand, we would think that a strong advisory role for the coastal States could be developed that would be consistent with the national interest. We will comment in more detail on the proposal to give the coastal States a veto over conduct of production operations on a lease after discovery has been made.

I will not go into that in detail, Senator, but that seems to have gained momentum as something being seriously considered by some of you gentlemen as well as the Interior Department as a device to get the coastal States a fair voice in the operations. On that particularly mechanical proposal, we wish to register a very strong objection for obvious reasons; namely, after you acquire a lease, pay your bonus, expand several millions of dollars in exploring and establish a discovery, then to be required to stop and be subject to a review of environmental factors and a new decision as to whether you will be allowed to complete development of your lease or have to terminate your lease, is something that a bidder could not accept as part of a set of bidding regulations.

Senator JOHNSTON. Mr. Savit's statement made the same point to the effect that you ought to have all the environmental parameters determined in advance of the bidding so that it can be factored into your bid, so that you will know if you find the oil and gas you can produce it and where you can bring it ashore and where it can be refined and all of those things that go into that.

Mr. COUVILLON. We think the coastal States have ample protection under their own individual control statutes, the EPA requirements, and we recognize they ought to have a voice in this, but to give it to them in that extent is an unrealistic and impractical measure which would really severely preclude the bidding and the resulting operations of OCS.

Senator McCURE. Is it your opinion that the coastal States now have the expertise to effectively apply the criteria under the various acts? Are they in a position where they could in advance of leasing set the various requirements that might follow the beginning of offshore drilling activities?

Mr. COUVILLON. Yes; to a great degree. Perhaps not to a finite degree, nor would the industry itself or the Government have complete information that might be considered from time to time during the course of the operations, particularly after production is established in going to the production phase, platforms, pipelines, and onshore activities.

But the only point we are making is that there should be an opportunity for advice and comment by the coastal States.

Senator McCURE. I agree with that. But if the coastal States are required as a precondition to leasing to take all of these actions, then all you have done is invite most restrictive action by the States because that allows them to go back up from it, whereas they could not go the other way. Second, perhaps inordinate delay as a satisfaction of the preleasing conditions if they are not geared up to make those decisions promptly.

Mr. COUVILLON. Well, I imagine that might be possible, sir, but on the other hand it is almost necessary that you be informed fully of your contractual obligations and your rights at the inception. That is a problem that would have to be worked out in some way. It is a very difficult problem.

Senator McCURE. I just wonder if we can realistically do that in the time frames we are talking about with States that are not getting geared up to do that sort of job.

Mr. COUVILLON. I think we can, sir, really, when you consider the nature of the operation, the exploration phase which consumes a certain amount of time, the time for planning and producing, the EPA Act which applies also to the States, and their own statutes where they have a virtual veto of what is done along their costs in the way of sitting and so on. They have that added protection as an act, so to speak, in the enforcement of whatever requirements they may come up with later. But all of that stops short of a decision by a coastal State that this lessee cannot proceed to complete development on this lease.

Senator McCURE. I understand the point you are making that it is desirable to have those decisions made, but I think in effect you are asking States to do something which they may not be prepared to do in the short run, and their answer will be, "No, you cannot."

Mr. COUVILLON. Under a system which gives them an adequate voice, which is the present system, if the impact statements, full hearings, which deal with all these points—

Senator McCURE. I understand that. But I don't think it can be implemented.

Mr. COUVILLON. It is a difficult problem and I don't have the full answer.

Senator JOHNSTON. Thank you very much, again, Mr. Couvillon. The entire statement will be in the record.

[The prepared statement of Mr. Couvillon follows:]

STATEMENT OF D. G. COUVILLON, WESTERN OIL & GAS ASSOCIATION

Mr. Chairman, my name is D. G. Couvillon. I am representing Western Oil and Gas Association, a petroleum trade organization with principal offices in Los Angeles, California. With me are W. E. Crain and T. S. Yancey who will assist me in answering any questions you may have.

Before proceeding with our submission, gentlemen, I would like to comment briefly on the current news reports indicating a surplus of gasoline supplies. This situation results from a drop in demand brought about largely by higher prices and emphasis on conservation, and has no direct bearing on the long-term domestic energy supply problem and the measures necessary to alleviate this problem.

My remarks today concern several bills under consideration by this Committee which drastically and unnecessarily amend the Outer Continental Shelf Lands Act. The bills I am referring to are S. 81, S. 426, S. 521, S. 586 and S. 740. At the outset, I would like to make a general observation. I am, of course, representing a substantial segment of the oil industry here today and these bills are of vital interest and concern to that industry. However, in our view, the consequences of these bills are so serious as to far transcend the immediate interests of the oil industry and will affect the welfare, and even the security of our country. In our opinion, these bills represent a serious misconception as to the extent and immediacy of the energy crisis and measures necessary to reduce dependency on foreign imports at the earliest possible time.

The stated objectives of these bills, of course, are highly laudable and they have the full support of the petroleum industry. However, implementation of these bills will not only render achievement of these objectives impossible, but will cause further deterioration of our energy supply. We will address our remarks to several basic issues raised by these proposals.

The bills before you today constitute a program for endless delay in the development of new domestic crude oil and natural gas reserves. Under present circumstances, further delay is unconscionable. Such delay will impair our domestic economy and ultimately jeopardize our national security. Our problem is quite simple; we consume more oil and gas than we produce. While ample supplies are available in world markets, our economy, weakened by decades of deficit spending, cannot survive prolonged importation of high priced crude oil in amounts sufficient to equalize supply and demand. Nor can we safely continue to rely on foreign sources for essential energy supplies.

The solution here in Washington has been to call for development of a national energy plan as a single solution for the entire problem as if the mere existence of such a plan could, of itself, solve our energy problem. Our industry has joined in calling for such a plan and hopes that ultimately one can be developed. However, it is imperative that we commit this nation, today, to the prompt development of new sources of crude oil and natural gas as the first step in the development of such a plan.

The authors of the bills before us recognize the wisdom in this course of action. The statement of purpose contained in S. 521 bears this out by stating that domestic production should be increased "to assure material prosperity and national security" and to "reduce dependence on unreliable foreign sources and assist in maintaining a favorable balance of payments." The same section recognizes the need to develop our OCS resources "as rapidly as possible." We agree with and support these purposes. In planning for these objectives, a basic fact must be kept in mind; a lead time that could be as long as 10 years is necessary between the awarding of Federal leases, locating significant oil structures through an exploratory drilling program and installing the necessary facilities to commence actual production.

As onshore and offshore production continue to decline our sole hope for new domestic supplies lies in the millions of unexplored and unleased acres of submerged lands on our OCS. Yet the bills before you today will, if enacted, frustrate, delay and possibly preclude the development of an area described by the U.S. Geological Survey as possibly containing undiscovered recoverable reserves of 65 to 130 billion barrels of crude oil and natural gas liquids and 395 to 790 trillion cubic feet of natural gas.

The question, as to why Senators and Representatives continue to introduce legislation designed to delay, study, and in some cases prohibit OCS development in face of our relentless crises, is a complete mystery. Surely it can't be dissatisfaction with the risk-free OCS revenues accruing to the federal government. From 1954 to date—revenues totaling \$15.6 billion in OCS lease bonuses, rentals and royalty payments have been generated.

Are you dissatisfied with the rate of OCS development? You should be! The Bureau of Land Management hasn't held a single lease sale outside the Gulf of Mexico since 1968. In spite of this, over the 20-year period 1953 to 1973, the petroleum industry has produced 3.2 billion barrels of oil and 20.5 trillion cubic feet of gas from OCS lands.

During the life of the OCS Lands Act, the Congress has not continued to burden the industry with excessive regulations culminating in the adoption of the National Environmental Policy Act of 1969, a well intended act but one which has been grossly distorted in its application by the importance placed on massive amounts of peripheral data found in the normal EIS Statement and the opportunity it provides for endless argument and capricious litigation. Despite a steadily deteriorating economic climate for capital accumulation, the petroleum industry has both survived and managed to serve the American people. Despite our industry's performance and despite our serious domestic energy problem, the bills before you propose to rain down still more unwarranted, unneeded and obstructive regulations. Gentlemen, why do you consider planting another seed to destroy our free enterprise system, especially the American oil industry which has demonstrated its ability by finding most of the oil of the free world.

The chilling possibility exists that a solution to this question may be sought in Section 19 of S. 426. In an apparent belief that offshore exploration by the vast U.S. petroleum industry can be bettered, the sponsors of S. 426 now propose to nationalize exploration activity on the OCS. From the thinking which gave birth to Amtrak and the Postal Service, now comes a Federal exploration program. Gentlemen, this is unbelievable. Also, keep in mind the well known deficiencies of state operated enterprises in the other nations of the world and, conversely, as already mentioned, that the overwhelming preponderance of established reserves in the free world have been discovered by the U.S. petroleum industry.

Section 19 of S. 426 proposes that offshore oil and gas exploration in "frontier areas" be put under the control of the federal government rather than industry and that a five year exploration program be undertaken to determine how much oil may be in these areas, how much it is worth, whether it is needed and whether it can be developed in harmony with the Coastal Zone planning of adjacent states.

This proposal would lead to total reliance on the skills and judgments of those few petroleum geologists, geophysicists, paleontologists and other earth scientists the government would be able to hire or retain, rather than the thousands of experienced personnel now employed by private companies. Successful petroleum exploration is a matter of individual skill, judgments and imagination in gathering and interpreting data. No single company or association of companies, major or independent, has been preeminently successful. That is why there are differences of several millions of dollars in the amounts bid by the various competitors for tracts on the OCS. Government exploration would eliminate the exercise of individual skills and judgments of many competing companies which has proven to be necessary for successful exploration. Believe us, any exploration program mounted by a single entity, be it one government agency or one private oil company, results in much slower progress than that which comes from the combined efforts of many competing entities. This could mean the denial to consumers of major discoveries that were overlooked in government-run prospecting but which would have been found if individual initiative were given full and fair play. We would be betting "all or nothing" on a single strategy. Gentlemen, this is an undesirable gamble.

This proposal fails to recognize that the government would not have the same incentive as private companies to thoroughly explore all promising areas. With no real economic pressure to develop new or improved technology and techniques for exploration aid to carry out the search for new petroleum supplies, a government-run exploration effort would most likely select and concentrate only on those areas with the greatest public acceptability or least economic risk based on its non-competitive and limited geological findings. It is our belief that a government agency would shrink from having to explain its dry holes to Congress. On the other hand, with the huge OCS lease bonuses paid to government to private competitors, and with laws regulating and limiting the amounts of time a private company can hold a lease without activity drilling, all private companies have a compelling incentive to proceed with exploration and development of leased lands.

Let me interject here, the oil industry has been irresponsibly charged with arbitrarily shutting in many wells in the OCS capable of commercial production

of oil and gas as a means of controlling the market and increasing prices. These charge are utterly false and obviously contrary to the absolute necessity for recovery, as soon as possible, of the huge outlays for OCS operations. Wells are legitimately shut in for a number of justifiable reasons. For example: wells awaiting connection to a pipeline; wells with mechanical problems such as sanding; wells with such low production as to be uneconomic; wells waiting on government permits, etc.

We also wish to point out several other serious aspects of this proposal. Under the proposal, a single Government body will displace a segment of our industry that does a billion dollars of business annually in geophysics alone. It will adversely affect employment in many supporting contract industries. It will also seriously reduce technological advances which now develop rapidly under a free and competitive enterprise system. Further, many years will be required to develop the team of thousands of skilled exploration scientists needed to conduct this program.

The bill S. 521 proposes extensive amendment of the OCS Lands Act and perforce revision of the attendant federal regulations. If adopted, it would result in a five to ten years longer moratorium on OCS leasing—at a time when such a delay would imperil both our economy and national security. The bill dwells on the subject of potential oil spillage and liability despite ample evidence that off-shore drilling (18,000 wells—4 major oil spills—no lasting adverse impact on the environment) is safe and poses a lesser pollution threat than any other major marine activity. A two-year study by the Gulf Universities Research Consortium concluded that operation of 171 petroleum production platforms in Temblor Bay, Louisiana, have caused no harmful impact on the environment. Copies of the study will be sent to the Committee staff.

Sec. 3 of the bill, S. 586, could in effect transfer much of the control over OCS leasing, exploration, development and production from the Department of the Interior to the Coastal Zone authorities of the maritime states. We question whether the Congress is really prepared to give to the coastal States his much hegemony over vital natural resources which, in fact, belong to the people of all the States, yet that seems to us to be a possible result if this language becomes law.

Under Sec. 307(c) of the Coastal Zone Management Act as Sec. 3 of S. 586 would amend that Act, any applicant for a Federal OCS oil and gas lease (or any applicant for any permit, license, etc., for any activity on the OCS) would be required to certify at the time of his application that all proposed activity under that lease (or permit, etc.) would comply with the adjacent State's approved Coastal Zone Management program.

The State would have six months to approve or disapprove such certification and if the State takes no action the CZM Act says the State's concurrence "shall be conclusively presumed." The Secretary of Commerce could overrule the State's objection.

Putting aside the question of how this provision could allow a State to delay and possibly prevent the issuance of the several licenses, permits, etc., which the Federal government requires for any activity on the OCS, let us consider for a moment how Sec. 3 of S. 586 would affect the issuance of oil and gas leases there.

For example, let us assume that the high bidder for a lease offers a bonus of \$100 million: with his bid, he includes his check for 20 percent (\$20 million) as required by the regulations. With his bid he also submits the required certification. Even though his bid is high, the Interior Department cannot issue his lease until the State has acted on his certification—and it has up to six months to do that.

If we assume the best, the State does accept eventually his certification, or the Secretary overrules the State if it describes otherwise, the applicant has lost 6 months of valuable time and a half a year's interest on his \$20 million. In the meantime, he has been able to make no plans to get to work on the lease which would have been his six months earlier under the present rules of the game.

This guaranteed built-in six-month delay is bad enough, but consider the consequences if the State chooses not to accept the certification and the Secretary elects not to overrule the State. The high bidder is out of luck. Presumably he would get his \$20 million back, and ordinary justice would seem to require that the taxpayers pay him the interest on it.

But given the uncertainties spawned by Sec. 3 of S. 586, would he ever again want to bid on an OCS lease? In fact, would he want to bid in the first place? To go on ad absurdum, if the high bidder falls victim to this obstacle course, would the next highest bidder be eligible to try the jumps?

Despite the fact that the Coastal Zone Management Act defines the "Coastal Zone" as ending with "the outer limit of the United States Territorial Sea," Sec. 3 would have the effect of extending that Act's coverage to the Outer Continental Shelf and perhaps beyond. In varying degrees, some of the provisions of other bills now before you would have a similar effect, at least in the sense that they would give the Coastal States a degree of authority over the disposition of natural resources that is neither necessary nor justifiable, in our opinion.

Among those are:

S. S1, which establishes a process under which a coastal governor could delay a lease sale for three years and a similar provision in Sec. 210 of S. 521.

S. 826, which amends the Coastal Zone Management Act so as to make both preproduction and production activities on the OCS subject to a State delay and possible veto process.

It is our position that the Coastal Zone Management Act as it now stands, together with the regulations promulgated under it, afford the States ample opportunity for co-ordination and consultation on the possible coastal effects of OCS development—provided both the States and the Federal government make full use of them. The local governments also have zoning and other regulatory authority.

If it is the sense of the Congress that the authority of the coastal States must be paramount in OCS leasing, then a more direct approach would be to repeal the Outer Continental Shelf Lands Act quitclaiming all Federal right; title and interest in the OCS to the coastal States.

In view of the National Environmental Policy Act and in some instances, State statutes, all of our coastal States presently have adequate control over onshore impacts attendant with OCS development. Federal legislation is not needed. Much of the vocal opposition emanating from some of our coastal States is largely from "professional obstructionists" who seek delay even at severe sacrifice to the national interest.

Let's not forget the classic case of delay—the Alaska pipeline. Seven years ago, the largest petroleum discovery on the North American Continent was made by private companies on Alaska's North Slope. Some 10 billion barrels of recoverable oil and 26 trillion cubic feet of natural gas were proved. The pipeline project was held up for nearly four years by environmental pressures and court actions. During this period the cost of construction rose from under \$1 billion to nearly \$5 billion. In addition, the oil is still two years away from market and it is unknown as to when the gas will be available for use—and this at a time when Southern California faces curtailed use of natural gas in private homes commencing in 1978.

The Santa Barbara Channel is another example. Through action of the professional obstructionists, production has been delayed here 6 years and there is still no clear sign that it will end shortly in spite of these reserves being needed now. Do you know that in just these two examples, our domestic supply could be increased 20% and our balance of payment deficit reduced over \$6 billion?

Finally, we note the continued concern by authors of several bills before you today that the federal government is not receiving fair market value for OCS oil and gas leases and equal concern that the smaller "independent" oil company is being precluded from participating in OCS sales. This is not true. The speculative value of OCS leases is proven by the wide variety of bids submitted for each lease by bidders all armed with extensive data, and by the fact that there is usually a substantial difference between the high bid and the second high bid submitted for each lease. For example, at the four OCS sales held in the Gulf of Mexico during 1974 the high bids for all tracts offered totaled \$2.48 billion more than the second high bids all of which accrued to the government. As to smaller companies being precluded from OCS sales, since 1970 OCS leases in which these smaller companies participated contain more acreage than OCS leases acquired solely by combinations of major companies. Further, while the oil industry has expended on the OCS in excess of \$60 billion, using latest available figures (through 1973), the gross revenue of production from the OCS has been less than \$16 billion. Therefore, the charge that the U.S. is not getting a fair return for its leases is incomprehensible. Actually, it is the oil industry which needs a greater return to finance the immense and ever-increasing costs of offshore exploration and development. During the past ten years the petroleum industry return on net assets, the time-tested method of determining profitability, has been essentially no different than the manufacturing industry as a whole, which varied from year to year between 10% and 15%.

CONCLUSION

In support of our urgent plea that these bills be rejected, we have described what we believe to be incontrovertible and self-evident factors which demonstrate very clearly that these bills are contrary to the national interest. These factors are as follows:

1. There is a shortage of *domestic* energy supply in this country which inevitably will reach such proportions as to further endanger the economy and even the security of this country.

2. Due to the length of time required to find new oil and bring it to market (as long as 10 years) OCS lease sales and exploration by private industry must be commenced immediately.

3. The bills before you will delay indefinitely identification and development of the only remaining large potential oil and gas resources, on the OCS, and, therefore, these bills are completely contrary to the national interest.

4. The existing Federal and State laws and regulations are ample for environmental protection of the ocean and adjacent coastal areas. The Interior Department has adhered to extremely protective measures in administering OCS leases.

5. The present OCS Lands Act, as administered by the Interior Department, has yielded more than fair return to the U.S. from OCS leases.

Another extremely significant and important aspect of these proposals is the departure from the free enterprise system as to a major industry under circumstances which may have serious consequences for the national economy and security. An even more serious consequence may be a tendency to depart from the free enterprise system in other areas.

Gentlemen, under the circumstances, we urge you to make every effort to fully understand the true nature of the energy problem facing the nation at this time and to fully understand the grave consequences of the proposals now being considered particularly those pertaining to Federal OCS exploration. With such understanding we are confident that you will firmly and permanently reject the course of action inherent in these bills.

We appreciate the opportunity to present our views and will be pleased to answer any questions you may have.

SUPPLEMENTAL STATEMENT IN BEHALF OF WESTERN OIL AND GAS ASSOCIATION

The following is a supplement to the above statement in behalf of the Western Oil and Gas Association which was prepared in response to the letter from Senators Jackson and Magnuson dated March 11, 1975, requesting express comments on seven specific issues. Although our original statement is generally responsive to those issues, we submit the following additional comments:

I. IMPROVED COORDINATION OF FEDERAL OCS PROGRAMS WITH THE STATES

This concept is highly appropriate and, in principle, has our full support. In several respects, the coastal states have legitimate interests in significant OCS oil and gas operations off their coasts and are certainly entitled to advance notice from the Interior Department of plans for lease sales off their coasts. Such notice has not always been timely given in the past. In view of the related onshore operations and the varied impacts thereof, it has been necessary in the past that oil companies conducting OCS operations maintain close liaison with the coastal states, and this will continue in the future.

In our opinion, there now exists extremely effective legislation which comprises the basis for strict regulation by the coastal states of onshore operations related to OCS operations. Under the provisions of the National Environmental Policy Act, the states may require full consideration of environmental factors as to any installations and facilities in state waters or onshore areas. Further, as to the State of California, the state has similar protection under the California State Environmental Quality Act and under the California Coastal Conservation Act, pursuant to which the state has virtually unlimited right to prevent such installations. With such state control, planning for OCS operations by the U.S. necessarily requires close coordination with the coastal states. Such control is now being utilized very effectively by the State of California adjacent to OCS operations in the Santa Barbara Channel.

II. INCREASING THE ROLE OF THE STATES IN THE DECISION-MAKING PROCESS

For the reasons already stated, inasmuch as the states already have a means of influencing the decision-making process as to the OCS, an express extension of the role of the states as to OCS planning would appear to be appropriate with the strong proviso, however, that such a role be properly limited and properly defined. It would appear appropriate that the states have a strong advisory role but, due to overriding national interests and the consequent necessity for final decisions to remain in the U.S., such roles should be clearly short of a complete veto. Further, even in an advisory role, the opportunity for lengthy delays should be strictly limited. Obviously, a lengthy delay is tantamount to a veto.

The oil industry fully recognizes the appropriate role of the states in this area and will make every effort to cooperate fully in decisions ultimately reached by the Congress in that respect.

III. METHODS OF SEPARATING OCS OIL AND GAS EXPLORATION ACTIVITIES FROM DECISIONS TO DEVELOP AND PRODUCE THE OIL AND GAS

We presume that this issue contemplates that both the exploration and producing phases of OCS operations would be conducted by a Federal lessee.

It would be extremely difficult and highly impracticable to separate the decision-making processes between exploration activities and producing activities in the OCS. In the first place, these activities substantially overlap one another. For example, producing platforms, facilities, etc., are normally being designed and, in many cases, constructed while the oil field is being further defined. For these reasons, it would be virtually impossible consistently to define the termination of exploration activity and commencement of producing activity on a given Federal lease. Another overpowering problem, of course, is the fact that once a lessee has conducted an expensive evaluation program, paid a large bonus and expended large sums on exploratory drilling, it would be totally unacceptable to be subject to denial of the right to complete development of a lease or even to be delayed significantly in commencing development operations. Such a system would undoubtedly severely restrict the interest and ability of the oil industry to acquire and operate on OCS leases. Consequently, it appears to us that such a provision would severely retard OCS leasing and production and reduce the returns to the U.S. from bonuses and royalties. Obviously, such a situation would be intolerable from the standpoint of national interest.

It is imperative that all basic environmental and safety issues be resolved prior to the awarding of OCS leases so that the prospective bidders will have sufficient information to determine the economic aspects of a proposed bid and proposed operations. This is not to say that some supplemental plan of development, with more elaborate treatment of plans for environmental protection and oil spill prevention and control measures, would not be feasible. Inasmuch as there is normally a three to seven-year period between a discovery and commencement of production, there is ample time for such additional impact studies as may be required.

In view of the comments we have already made indicating the present adequacy of existing laws to afford protection of the coastal states against adverse environmental impact from OCS operations, it would seem that such an extreme and impracticable concept would be unnecessary.

IV. ALTERNATIVE LEASING SYSTEMS OF OTHER METHODS OF ALLOWING PRIVATE INDUSTRY TO DEVELOP OCS OIL AND GAS

As indicated in our principal statement, the present bonus bidding system appears to be the most desirable from all viewpoints, both that of the national interest and of the oil industry. This system has been an effective means for impartial awarding of leases pursuant to widespread competition, with extremely high return to the U.S. both in cash bonus and royalty. The participation by smaller companies, in combination with others, under this system has been ample, such companies currently having participated in lease acquisition to an equal, if not greater extent than the major companies. Voluminous statistics on this subject have been furnished to this committee in prior hearings.

Royalty and net profits bidding in lieu of strictly bonus bidding have been considered from time to time. The principal concern as to such bidding is the likelihood that high royalty or net profits bids will result in the loss of our

natural resources through early oil field abandonment. Also, under such a bidding system, the rate of development would very likely be much slower due to less incentive to recover bonus investments. Under such systems, also, of course, the Government sacrifices cash bonus income.

One concern as to the present bonus bidding system is the preponderance of funds going into bonuses rather than exploration activity. Consequently, we suggest consideration of a continuation of the present bonus bidding system but with a provision that payment of the bonus bid would be deferred and drilling expenditures within a stipulated period of time credited against the amount of the bonus bid. If there should be any interest in pursuing this approach, the oil industry would be willing to work with the Congress in working out a suitable plan.

Concession negotiations such as utilized in foreign countries, although desirable in many respects, appear to be impracticable in the U.S. as a means of impartial distribution of OCS operating rights to various components of the oil industry. In addition, such an approach would very likely achieve much less success in exploration as compared to the present approach under the competitive bidding system involving multiple operations by many companies.

V. IMPROVEMENTS IN THE PLANNING AND EXECUTION OF ENVIRONMENTAL BASELINE STUDIES, MONITORING STUDIES, AND PREPARATION OF ENVIRONMENTAL IMPACT STATEMENTS

We would first like to point out that in recent years there has been a decided improvement in the quality of environmental impact statements due to the change in policy of the Interior Department which encouraged input from non-Government sources in the preparation of such statements. We believe the principal improvement to be made in this area is to more clearly limit and define the requirements of environmental studies and statements not only to reduce the time required to prepare same but also to reduce the endless attacks of the professional obstructionists based on NEPA who seem bent upon not only delaying but entirely preventing further OCS operations. Also, it is highly desirable that in the future environmental impact statements be directed more specifically to the environmental impact of OCS oil and gas operations. It would also be desirable to expressly provide for utilization of existing data previously compiled in other similar areas and to increase the authority of the Interior Department to waive or limit such statements where existing data is deemed adequate. Certainly, we do not believe that more elaborate studies, statements, etc., are necessary or desirable. The National Environmental Policy Act, while well intended, is so broad in its terms as to encourage abuse and as to create difficulty for proper construction by the Courts. We would strongly urge an immediate review and amendments of this Act to make the changes we have suggested. We believe it safe to say that the abuse of this Act is one of the principal underlying causes for the energy crisis and the recession that face this country today.

VI. IMPROVEMENTS IN REGULATION AND ENFORCEMENT OF OCS OPERATING PRACTICES FOR SAFETY AND ENVIRONMENTAL PROTECTION

The oil industry has strongly supported and will continue to support any new measures or procedures designed to improve safety and environmental protection in the OCS. The principal question, under the circumstances, seems to be whether further and stricter regulations are necessary. For your information, during the past two years, OCS orders and regulations have been extensively rewritten and strengthened and, at the present time, are being further rewritten and strengthened. In our opinion, the Interior Department has fully responded in recent years to the need for further and tighter controls and has promulgated extremely strict regulations. In addition, such regulations are supplemented where deemed necessary in particular areas. Also, in the case of California, extremely strict regulations are in force and effect as to the state offshore area. Over and above this, the oil industry has responded fully to the public interest in safety and environmental protection and has expended huge sums in developing and acquiring new and improved equipment, training personnel, and developing spill control centers equipped with the latest spill cleanup equipment.

The oil industry is ready and willing to cooperate fully with the Congress in developing and implementing additional regulations on this subject as the need arises.

VII. THE NEED FOR AN APPROPRIATE FORM OF FEDERAL ASSISTANCE TO AFFECTED COASTAL STATES

As already indicated, the OCS operations have a relationship to the coastal states, much of which is beneficial but some of which also constitutes a potential financial burden to the state which, in some instances, may not be entirely offset by the economic benefits. For this reason, it appears that Federal assistance or sharing in revenues from OCS operations to an appropriate extent by the coastal states and, possibly, such revenue sharing to a proper degree by the inland states, would be equitable and proper. The principal interest of the oil industry in this respect is to encourage cooperation between the U.S. and the coastal states as to OCS operations as a means of eliminating or minimizing the present conflicts which are causing serious delays in OCS lease sales.

In view of the virtually prohibitive expense of acquiring OCS leases and conducting OCS operations, we would strongly urge that any such assistance to the coastal states not be made a direct or indirect burden on OCS lessees.

The comments on the above issues are rather brief and if further information or details are desired in any respect, we will be glad to furnish same.

Again, we thank you for the opportunity to present our views.

Senator JOHNSTON. Our next witness will be Mr. Alden J. LaBorde, immediate past president of the Ocean Drilling & Exploration Co. and past president of the International Association of Drilling Contractors.

We are pleased to have him here with us.

STATEMENT OF ALDEN J. LABORDE, CHAIRMAN OF THE BOARD, OCEAN DRILLING & EXPLORATION CO., AND PAST PRESIDENT, INTERNATIONAL ASSOCIATION OF DRILLING CONTRACTORS, ON BEHALF OF THE INTERNATIONAL ASSOCIATION OF DRILLING CONTRACTORS

Mr. LABORDE. Consistent with what I have been hearing, I am going to bobtail this thing considerably and trust that you will not ignore completely the parts that I omit.

I am Alden J. Laborde, chairman of the board of Ocean Drilling & Exploration Co., New Orleans, La.

My employer, Odeco, is engaged in contract drilling offshore oil and gas wells and in the exploration for and production of oil and gas for its own account.

My company now operates the world's largest fleet of some 42 mobile offshore rigs and we also produce a relatively small amount of offshore oil and gas.

I appear as the immediate past president of the International Association of Drilling Contractors, although I add that our association has no mechanism for taking industry positions in such matters as are under consideration today and my comments should be considered personal.

Most offshore wells are drilled by contractors such as Odeco, operating under contracts to the producers, typically the major oil companies. We own the equipment, employ the crews, and manage the day-to-day activities in getting the wells drilled. The operators specify the locations, depths, and well plans and designs and we drill the holes as specified, turning over to them a completed oil or gas well or plugging or abandoning a dry hole. We usually operate offshore on a day rate basis in view of the high costs and unpredictable nature of offshore drilling. When a well is completed we move along to another location and the operator's crews take over the production of the well.

Most of us got our starts off Louisiana since World War II. The offshore drilling business has been, until recent years, an almost entirely American business. Today there is hardly a shallow ocean in the world which is not receiving serious attention by explorers and most of them have already felt our drills. We have recently enjoyed a great increase in demand for our services, and are aggressively expanding our fleets. For the first time we are encountering significant competition from foreign contractors.

I am going to omit a litany of the problems that I had, but I am going to mention that I was going to point out the fourth one.

Senator JOHNSTON. Before you get to the fourth one, who are the foreign contractors?

Mr. LABORDE. Who are they? There is France, Germany, Norwegians, Dutch, and some government-owned groups such as Italian and recently Brazilian.

Senator JOHNSTON. That is competition only overseas?

Mr. LABORDE. That is right. None has showed up here yet.

Senator JOHNSTON. What percentage of the market will they have, collectively?

Mr. LABORDE. Probably 10 percent at the moment. Prospectively, offshore, I would say 25 percent. The biggest bulk are Norwegian ship-owners who have entered the field aggressively. Most of the equipment is under construction.

We have repeatedly and chronically suffered from not knowing what governments would do next. In this country, we were shut down completely for a couple of years on one occasion, had all lease sales canceled for a time, have had sales announced, then withdrawn, new areas scheduled for leasing, then canceled. We had a price freeze which caught us at a low point of our business fortunes and held us there for many months. On the oil and gas side we remain about the only so-called free enterprise whose product prices are frozen. Fortunately, our rigs are mobile so that we can move about the world looking for the most favorable business and political climate at any given time. While similar problems exist in most foreign countries, I must in fairness observe that most of them have been more even-handed and consistent in their approaches to offshore development than we, have appeared better to define their goals and order their priorities, seem to have more clearly responded to questions such as, "What is most important—to get the top dollar into the Treasury for offshore lands or to move quickly to find and develop new sources of oil and gas, or to safeguard States' rights at the cost of delays, or is protection of the environment the No. 1 priority?" We here still have not made up our minds just which of these is most important, which comes second, and so forth. We seem unwilling to face the needed trade-offs, striving for absolute perfection in every area, and thus accomplishing little.

Senator JOHNSTON. Excuse me, Senator Stone has to leave.

Senator STONE. Please excuse me interrupting your main presentation, but I have been reading your written presentation, and I just wonder, one of the main doubts you express here is over how much frontier acreage will be allotted for exploration off shore and development off shore, so as to be able for your industry to predict how many equipment and rigs to procure, and how much manpower to begin to organize.

My question to you is assuming there were no limitation, how much could you get ready for in the light of leadtime and the shortage of drilling equipment and the like? What would be the optimum acreage that you could handle, assuming there were no environmental limits put on it artificially?

Mr. LABORDE. I think the overall industry can grow at about 20 percent a year. If you go faster in one phase, be it the shipyard, the personnel, you get out of whack in some other area. So in absolute terms, 20 percent a year.

Senator STONE. How much are you growing by?

Mr. LABORDE. About that much.

Senator STONE. You are growing as fast as you can grow in a balanced way?

Mr. LABORDE. That is true. Most of these rigs are located in the Gulf of Mexico and established areas now. What we really need is to see the commitment on the part of the Government that these other areas will be opened in the future. If they announced a sale off the east coast or Alaska today, nothing would happen. The geophysical people would be out there. It would be 2 or 3 years. That would be the leadtime we need, to be building the appropriate type of equipment for those areas. A rig is not a rig—

Senator STONE. My point is if you are growing at your optimum and we announce sky high acreage, could you grow any faster?

Mr. LABORDE. Then the rigs would be moved from the present areas for the beginning stages of explorations. Three or four rigs could do the first year or two's broad exploration work. We have passed a peak in the North Sea. A number of those rigs would come back. A number of them would drift from the Gulf of Mexico. Others are being built now that I am not sure where they are going to. I have two of them being built in Japan now on the assumption they will go to the Gulf of Alaska. This is equipment that will be very much underemployed if we use it in areas other than that. These rigs are going to be out, one in the next 4 months and one within a year, and we will have to use them elsewhere.

Senator STONE. You have a rig for heavy water and heavy climate and don't have the acreage in such areas to use that kind of rig?

Mr. LABORDE. That is correct. Our backup on that was the extreme northern reaches of the North Sea off Norway, and they have pulled those out of the picture.

Senator STONE. Pulled them out of the picture?

Mr. LABORDE. The Norwegians have, yes. They have ceased exploration north of their 62d parallel.

Senator STONE. Is that for geological reasons?

Mr. LABORDE. No, for political reasons. They don't want to spoil their people by giving them too much money and they have definitely slowed down the rate of development.

Senator STONE. All of that oil gives them too much money and they don't want all the money?

Mr. LABORDE. They don't indeed. I am being quite serious when I say this, as unusual as it sounds, that is the announced reason. They have slowed down very much the development of the existing areas and have not offered any new leases for a couple of years, and nothing north of the 62d parallel.

Senator STONE. But the Alaskan waters are not available to you as fast as your rigs would be available?

Mr. LABORDE. Apparently they will not be. The wheels have not started turning to make these areas available for drilling.

Senator STONE. What about Nova Scotia?

Mr. LABORDE. Nova Scotia, there has been some drilling there. It doesn't appear to have been blessed with very much success. My company has not operated there. We see no demand for further rigs in that area at this time.

Senator STONE. What about this "iceberg alley" that I read about?

Mr. LABORDE. In the iceberg area, and in my own opinion we don't know how to drill where you have free floating icebergs or where you have substantial movement of heavy ice or ice packs. I don't think that my generation—

Senator STONE. My big full page ad about how we are going to do it—

Mr. LABORDE. I think I am past the age where I will have to worry about drilling in the iceberg country. [Laughter.]

Senator STONE. Thank you.

Senator JOHNSTON. To digress a minute, didn't you design the first offshore rig off Louisiana?

Mr. LABORDE. I think in this room I can get away with that. [Laughter.]

Senator JOHNSTON. Proceed. What does that rig cost to drill in the Gulf of Alaska? Is that the \$140 million to \$150 million?

Mr. LABORDE. That one is about \$52 million. When we tried to order a little brother of it, it got to \$65 million. So we didn't order the second one. It would be today \$65 million or \$70 million.

Senator JOHNSTON. You can explore with a drilling ship, can't you? Or can you?

Mr. LABORDE. I would not agree with that at all. You really need—when you say explore, I am talking about drilling a hole in the ground. The only difference in an exploratory well or in a development well is the result. You need something that will stay there and safely drill a hole in the well. You encounter the same problems.

Senator JOHNSTON. A drill ship will not do that?

Mr. LABORDE. In a very—there may be some seasons of the year when a drill ship could slip up there and with some luck get a hole in and get out before the winter, but it would not be a viable operation.

Senator JOHNSTON. In the Gulf of Alaska.

Mr. LABORDE. Right. We are building a ship in Scotland costing \$50 million also, so there is no great advantage in using a drill ship. I think we are confused between seismograph boats and exploration ships that would be defined as the geophysical work as distinguished from exploratory drilling, which in my book, the first few wells is exploratory drilling. After you know what you are doing, you do the development work. We get paid the same and do both jobs almost the same, usually taking some extra precautions in a so-called exploratory well.

Senator JOHNSTON. We have got legislation in here, Mr. Laborde, that in effect would get the Government into the exploration business. The idea being that the Government and its people have an interest

in knowing what they have before they lease it out so they will not in effect get ripped off, and so they can intelligently plan a drilling development program.

Now, why shouldn't the Government get into the business of exploring and determining what is down there before it is leased out?

Mr. LABORDE. I guess without trying to be smart I would turn around and say why should they? What good will it do? Because you have the best expertise in the world alined and waiting to go do the job. The track record of the Government agency that has been attempting to evaluate leases in the past, Geological Survey, with all respect to them, is very poor.

We go to a lease sale and what the Survey publishes as their No. 1 tract in the sale hardly receives a bid in some cases. The tract that attracts the greatest interest from the companies is frequently one that the Geological Survey had way down in its list of values. I think the Government and the public, therefore, are the beneficiary of that because there is nothing wrong with the Geological Survey putting a \$2 million value on a tract that sells for \$100 million. But if they put a \$100 million value on the tract and somebody bids \$2 million, they naturally turn him down. The Government gets all the money, and since it goes into the Federal Treasury, I would say the people and the consumers are the beneficiaries of that. It is a very vicious system as far as the industry is concerned, but I know of no way to improve it.

Senator JOHNSTON. When you say that oil and gas exploration activities are inseparable from those of development and production, would you explain that?

Mr. LABORDE. You only find oil by drilling. As I said earlier, exploratory drilling is a hole in the ground, and so is development drilling. The only difference being in the result. As long as you are drilling dry holes, that is exploratory drilling. When you succeed and do some development, then you are in development drilling. But as far as we, the drilling contractors, who take the job of drilling the holes in the ground, we don't know most of the time whether it is a successful well or not.

Senator JOHNSTON. When you are exploring and put your rig out there, you can move that rig if you get a series of dry holes.

Mr. LABORDE. Yes.

Senator JOHNSTON. You don't anchor it permanently to the ocean floor?

Mr. LABORDE. That is right. There is really the technology we talked about. I prefer being able to move about rather than having to build a piling structure before you move your first well.

Senator JOHNSTON. The first ones were immovably fixed?

Mr. LABORDE. They were close in to shore and reproduced a little bit of a cow pasture up there and set up a rig out there. That was the only way we knew. It was obvious that some way to move the equipment around, particularly in the event of a dry hole, was a very obvious and excellent objective.

Senator JOHNSTON. You have talked about the fact that there is no news to anyone that OCS is very capital intensive. We don't have enough capital invested now, we have to increase the rate of capital formation for the development of OCS. Yet you say that the present

method of leasing is the best one, and it is preferable, for example, to a fixed bonus and either variable profit percentage or variable royalties.

Why is that?

Mr. LABORDE. My comment about capital intensive was wearing my drilling contractor's hat. I was referring to the high cost of drilling rigs per se. That really has not much to do with the bonus money that our customers invest a bidding. But then becoming a bit broader in my observation of this industry, and we have been in it and we are a neophyte producer and have bid on some leases, I could think of some—for one thing, if the awards were made on a judgment basis, such as they do in the United Kingdom, for example. They call you in and want to know what you can do for the country and what you have done, and they say you do this and you take this. That works well over there. People have a higher degree of confidence in their Government agencies than would apply here. Then you get into the area of let's say varied royalties, if somebody bids a high royalty, you don't know what is there until you drill it. And this you got to believe. You just got to take my word for it, because I spent my whole life watching companies the world over drilling the wells. You don't know if there is anything there until you drill it. If it is marginal and you bid a 50-percent royalty, you are going to walk away from it. If it is negligible and you bid a marginal royalty, this doesn't seem any more fair than the present system.

Senator JOHNSTON. Let me suggest the two biggest arguments that have been advanced in favor of this, not only the variable royalty but a variable net profit. Recognizing it is difficult to define net profit, leaving that question for a minute, the advantages are, first, it doesn't take as much capital front end. You don't spend \$2.2 billion like they did on the Louisiana leases not too long ago. That is No. 1.

No. 2, it would assure all of those people, and there are lots of them, who are concerned about the Government and the citizens getting ripped off by oil companies taking this vast and valuable natural resource and acquiring it for too little money.

Now, what is wrong with those arguments?

Mr. LABORDE. In my opinion, they have not been ripped off. On the contrary, they have been the beneficiaries under this system of tremendous input into the Federal Treasury, which should have reduced all of our taxes by some amount because the Government didn't have to raise that money elsewhere. I think the ripoff has been with the major operators who have somehow conned themselves and each other into this scheme that has just cost them unconscionable billions of dollars. But I say let them worry about that. Don't let the Government worry about that.

Senator JOHNSTON. And how about the argument that it takes too much capital front end, that ought to go into development?

Mr. LABORDE. They ought to quit bidding so high. [Laughter].

They are doing it to themselves, Senator. I don't think they should ask the Government for relief, and I don't hear them asking for relief. The government is trying to push some relief on them, as I understand it. I have not hear them complain either, although I think the problem is theirs and not the public's.

Senator JOHNSTON. Now, give me your conclusion on that base line study again? You say that the ocean environment is a changing one

and that base line studies will as often as not lead to erroneous conclusions. Will you tell me what you mean by a changing environment?

Mr. LABORDE. Yes, indeed. I think the danger of a base line study, you could say the information is always good but where you try to freeze a set of conditions, you take down there, off of south Louisiana, where I spent all my life, that is the most changing coastline and environmental and biological condition you could possibly find. All the sediment is coming out of the Mississippi River, and we have conducted some very expensive studies in that area. Outside organizations have also.

The one thing they concluded is that this thing is changing all the time. The shrimp come and go, the fish come and go. The mud, the salinity of the water, is an ever-changing thing. To somehow come in and run a base line study during a certain period and come back a year or two later after a hurricane and after the Mississippi dumped its billion barrels of water every day and the sediment, and try to tie that in to a particular activity is what I mean by the base line study idea that you can somehow freeze geology and freeze the environment, freeze nature, at a given point, makes no sense.

Senator JOHNSTON. Would that be true for other areas, other than the Gulf of Mexico?

Mr. LABORDE. To a degree it would: yes. If you ever studied geology you would realize that the earth is such a changing, moving, flexible, living thing, all the land masses of this world were once in one big glob. All of our continents are drifting about now. The seas and currents and climates are changing. We have had icebergs. Even in the last few thousand years, the one thing about the oil business we can be sure of is whatever you find there is going to be depleted all too soon, and before almost our lifetime is done, you can also be sure that that whole offshore area is going to be back like it was. But it is not going to produce forever. It is going to produce for a very finite number of years in any given field. Your regulations are such now it will be cleared off and look just like it did before we arrived, almost within our lifetimes, in any given spot.

Senator JOHNSTON. One final question, Mr. LaBorde. You indicated that the industry was not able to make its plans now because government plans are uncertain, and yet in reply to another question you said the capacity for growth is only 20 percent a year and was growing about that fast per year.

Would you clarify that? I have also heard some statements from other friends in the industry who tell me that they need to be making their plans now and they can't do it. They need to be reserving shipyards and space and that sort of thing. Would you tell me what you meant by that?

Mr. LABORDE. Yes; I recognize the contradiction of those two points, and I think there is an explanation, that up until this time and right now there is demand for every rig that we have, and I believe most of the other contractors have. Most of us are also building others, anticipating what our Government and other governments will do to even further extend that demand. Everything I can observe logically about the energy situation in this country dictates to me we need to be getting ready for even more activity and we should take advantage—every time a supplier comes in and offers us a string of drill pipe

or says he can let us have a drilling rig, we order. We don't know what to do with it, but we feel this is going to be a growing thing. But in the last few months it has changed.

The Norwegians froze this area—the British acted up, but that looks like it is settling down at the moment. They have come up with a reasonable resolution of the trade-offs there, and I believe they are happy and are going to be keeping the rigs rather than turning them loose. Also, we are developing and drilling what we have off of the coast of Louisiana and Texas. That is getting pretty well drilled up. There are 100-odd rigs in that area and we have to look ahead as to where they are going to go. We know the tremendous lead time, the 2, 3, and 4 years, before you get into a phase where you need significant numbers of drilling rigs. You might need 1 or 2 in the exploratory phase, and they will drill 2 or 3 or 4 or 10 wells, and they will leave and then somebody comes in and finds something. Then you get into the business of needing a lot of drilling rigs.

People like ourselves being able to satisfy what they think are their real business objectives, we are getting into that in the United Kingdom now. They are not bringing a barrel ashore in the United Kingdom today. I have been drilling over there for 12 years. It takes one long time. I heard some comments about how the Norwegian part of the North Sea, how smart the geologists were and all that. We went over there about 10 years ago with a new rig for Phillips. And they had a whole bunch of leases. And in descending order of attractiveness, based on all the art of geophysics, they drilled their wells. At the end of three wells, almost at the end of the 3-year contract they had with us, they had drilled 14 prospects, their 14 best, presumably, and they didn't have a thing. And they asked us to try to find them another customer for this rig, and we couldn't, so reluctantly they drilled another well and that is where echo fish came from. That is the way it is. If you fellows don't remember another thing I said here today, keep in mind that the odds are absolutely against, and as a betting man I would bet any one of these frontier areas we are talking about here does not have any oil and gas in it. That is the way I would bet. That is this country's problem. Not what we are going to do with the money or do to the environment, it is whether there is any oil or gas there.

Senator JOHNSTON. You mean you would guess that the right bet is there is not oil or gas in the Gulf of Alaska?

Mr. LABORDE. I would bet 50/50 that the Gulf of Alaska is a 50/50 shot as to whether there is significant commercial oil or gas accumulation there. I would say the same for the Baltimore Canyon and the eastern Gulf of Mexico and the extreme southern seaward part of California. We have already drilled the northern regions of the Pacific over there. There doesn't seem to be anything there. The west coast of Canada has not turned up anything. The east coast of Canada has turned up darned little. You read about the eastern Gulf of Mexico recently where the industry spent \$1.5 billion for the privilege of looking; they have not had a whiff yet. It has been about 8 or 10 wells drilled there. You are going to see them pull out of there.

This is the way it is in most parts of the world. Then occasionally you stumble into one like Phillips did in Norway. That is the way to do it, but you have to be out there looking for it and drilling holes in the ground.

Senator JOHNSTON. One final question, Mr. Laborde, then I have to go to lunch with a whole group of Louisianans. That is the only reason I am not going to stay to hear Senator Metcalf ask his questions of you. I know you support in your statement the idea of revenue sharing with the coastal States. Would you tell me why you make that statement?

Mr. LABORDE. I think basically it is only fair. There is no doubt the States have to make an accommodation for our activities. I think it is only fair they should enjoy some of the proceeds from this thing. I think that is as far as it should go. I think that is the answer when you quizzed my fellow Cajun there, Mr. Couvillion. I was hoping he would say give the States some of the money, that will take care of them, but don't let them take part of the Federal operations. When I got started in this business the Federal Government was not interested in the offshore. So Louisiana subdivided it as far as anyone wanted to go. All of a sudden here comes the Federal Government and took it over. They confiscated it and crowded us back in the 3-mile limit.

We could say why didn't Louisiana holler sooner, but the Supreme Court decision yesterday may be the last word of a 25- or 30-year fight on the thing. Louisiana was considerate enough to let operations continue because they had backed in. They had offshore revenues, good relationships with the oil companies, knew what was going on and understood the problems, didn't view the drilling of a well off their shores as the end of the world and realized that the impact of our activities upon the environment was minimal to negligible and there were many benefits to be accrued, even though they didn't get any money out of it. I certainly think it is fair and it is high time that the Federal Government recognizes the States do have an economic stake in this thing. They ought to treat them just like they do the interior States that have drilling within their borders.

Senator JOHNSTON. Mr. Laborde, I want to thank you very, very much for a most excellent presentation. I have to go off to a luncheon. Senator Metcalf?

Senator METCALF. Thank you, Mr. Chairman. There is no one more knowledgeable in this area than the Senator from Louisiana. I have been fascinated by the dialog here and discussion here. Let me ask you, do you think that the Supreme Court decision yesterday which finally decided that the Federal Government has control of these offshore areas will make any change in your activities?

Mr. LABORDE. If I were able to conclude from it that this would be the end of the controversy, that the legal processes, injunctions or whatever else that have been used over the years to block such things were all behind us—I don't have the background or expertise to say this is the last word. It sounds very much like a number of such decisions we have been hearing for the last 25 years. But I would hope this does clear at least another hurdle, so that the rest of the country can acquiesce. I believe we have in Louisiana. We only go out to 3 miles. We probably have more to lose than any other State in the country. But after 25 years you finally read the handwriting on the wall.

Senator METCALF. I think Congress, however, is going to be concerned, despite the Supreme Court decision, with the States. We are going to be concerned with the impact on the States at the local level and State level for services. We are going to continue to be concerned

with many of the State activities that maybe we could shrug off, but we don't want to shrug off because of the public interest involved. From what I have heard from your discussion, you could live with that sort of program if we passed such legislation?

Mr. LABORDE. I see no vital interest of the drilling contracting industry, nor the oil industry, in whether the States get part of the revenue or not. I do see real problems in at the same time they can control the operations and what lands on their shores and who lives in their jurisdictions. That kind of think, I believe they should be compensated for the necessary support needs, such as building roads out to ports of entry for this and providing schools for our employees when we of necessity will want them to live in these coastal areas. That is the kind of services that suggest to me——

Senator METCALF. Water, sewer, police protection?

Mr. LABORDE. Yes, sir, that is right. This is what Louisiana has accepted without any compensation, rationalizing I suppose they might eventually work it out and in the meantime the oil industry on shore had a stake. These new areas are not going to have that situation necessarily. It is a unique circumstance.

Senator METCALF. We have learned from what happened in Louisiana, and I hope that the Congress will acknowledge that we have not taken care of that impact on small towns and parishes in Louisiana. It would be my opinion we are going to recognize the impact on the States and local communities.

I was disturbed when you criticized the Geological Survey. We appropriate a good deal of money and we here rely on the Geological Survey as our advisers. If they do a poor job of evaluation, what can we do about it?

Mr. LABORDE. I think we are not—I am not criticizing the Geological Survey. I am making a factual observation on the state of the art and the limitations of this business of evaluation. You see, Senator, the Geological Survey would have to be expert as to every lease in the lease sale. Hundreds and hundreds of them. We can get by, because we are spending our money; I can go out in the lease sale and pick one tract and do all of the details and put a dozen geologists on it and work out every possible bit of information available on that one tract. The other companies can do that in tracts and areas and groups. But the Survey would have to be that good in every block of the whole offshore of the Continental Shelf. There is no way for them to do it. I think to impose it upon them is a needless burden; they can't do it.

Senator METCALF. What is your solution?

Mr. LABORDE. Go like we used to. Assume the companies, when they are spending their money, they are doing the best they can. If no one bids on a lease, that shows their lack of interest in it and their evaluation of it. It means that everybody has evaluated zero. That doesn't mean that no bid is in, that means that everybody has bid zero on it. They don't think it is worth anything. Where you do have people willing to spend their money to go out and explore and spend the further sums necessary, even if you gave them the lease, they have to spend millions of dollars to drill wells, and I think that is in the public interest. For the Geological Survey to sit there and second-guess all of that, and on the face of it, if you study the results of any of these sales, you have to see it is something they themselves

cannot be proud of. Still, as I say, if they evaluated a lease at \$5 million and it brought \$150 million, I guess they feel like they really did a good job. But the industry feels, on the other hand, that if the Survey put \$1 million and nobody in the industry was willing to pay but \$2 million or \$3 million for it, that that is really more nearly the right price than what the Survey had.

I think the whole thing is just an exposure of their limitations, their own, and that of the industry and the art itself. It is a very, very difficult thing. You only know what is there by drilling.

If you went back and examined the last four lease sales off Louisiana and Texas where you have had substantial exploration following up, the industry is way in the hole and will never gets its money back. Rather than someone has been "ripped off," as I heard said here, the consumers, by these recent sales that have not brought in what one would feel would be the expected amount of revenue.

Senator METCALF. Well, let me say I am not so concerned about a rip-off, so called, as far as the Government of the United States is concerned, although I feel we should get a fair return on our resources. But the Federal Government owns half of the energy resources in America. When you add up offshore oil and geothermal energy and coal and all those things. And we have a public interest to be concerned about, as well as a concern to get back exact dollar values. And in the leasing procedure are we taking care of that other concern to be sure that we are developing the offshore oil? Not only to get money back for our leases, but to be sure that we are developing the energy for the people of America?

Mr. LABORDE. I think the answer is we are not, because not that we are not getting our money's worth, but we are not putting anything up for lease except in the same old areas.

Senator METCALF. Hopefully, if we pass this legislation, and we have had this Supreme Court decision, a couple of obstacles about putting them out to lease will be cleared.

It would seem to me if I were an individual I would be concerned about getting the greatest amount of money that I could for my lease. That is not our problem here as far as Congress is concerned. Owning half of the energy resources of the United States, we are concerned with expediting and developing our energy resources as well as being sure that the people of America get part of their full value for their resources. We have two problems that we don't have in a private leasing. Do you think we are meeting those things with this legislation?

Mr. LABORDE. The worst thing we can do is, of course, not do anything. And that is really the worst thing of all, is that we have not done anything.

Senator METCALF. That is what we have done. So anything would be better?

Mr. LABORDE. Anything we do is better than what we are doing now. However, I think—and we are dealing with such a package of legislation here it is hard to narrow it down, if I understand what we are talking about. But one of the things is whether the States should have a veto on it. You are asking for delay if you are going to do that. I say give them their fair share of money, but don't give them the absolute veto outside of their own jurisdictions.

Senator METCALF. Give them some consultation, some participation—

Mr. LABORDE. Right. Listen to them, even though the Government treats all the rest of us—they listen to us, but in the end they tell us what to do. That is the way it will have to be.

[Laughter.]

I think the best way to get this thing going, you would not have to change a thing. If you had kept going, if you announce in a way that people will believe that the frontier sales are going to come to pass, I have six customers lined up, each one will be in a position to say he has got first refusal on one of those rigs in Japan. If you announce in a way that he believes that the Gulf of Alaska is going to be open for exploration, all right. But right now they don't believe you. I don't know how to make them believe it in a way that will be sufficient to make them sign a contract with me—

Senator METCALF. When we pass this legislation.

Mr. LABORDE. We have had a lot of legislation before that almost immediately gets blocked by some injunctive or other edict process.

Senator METCALF. Well, we in the Congress have a responsibility to try to help you to get some stability. We want to have you move forward with your rigs, move them back from the North Sea or wherever you have them and start this exploration. We want to be sure that we are acting in the public interest for development of these energy resources so that we can try to be self-sufficient—in energy. Some of those goals are conflicting. But our only job—and you are helping us today by advising us as to our job—is to pass the legislation, and then we will hope that the administration will carry out objectives that we seek to achieve. And then you can move your rigs into the Gulf of Alaska. I don't want you to move them into Bristol Bay.

You are ready to do that?

Mr. LABORDE. We are ready to do that.

Senator METCALF. I certainly think you have made a valuable contribution to our hearing, and I have enjoyed this dialog. I appreciate your appearance here today. Thank you very much.

Mr. LABORDE. Thank you. I appreciate your listening to me.

[The prepared statement of Mr. Laborde follows:]

PREPARED STATEMENT OF ALDEN J. LABORDE, IMMEDIATE PAST PRESIDENT,
INTERNATIONAL ASSOCIATION OF DRILLING CONTRACTORS

Gentlemen: I am Alden J. Laborde, chairman of the board of Ocean Drilling & Exploration Company, New Orleans, Louisiana.

My employer, Odeco, is engaged in contract drilling of offshore oil and gas wells and in the exploration for and production of oil and gas for its own account.

My company now operates the world's largest fleet of some 42 mobile offshore rigs and we also produce a relatively small amount of offshore oil and gas.

I appear as the immediate past president of the International Association of Drilling Contractors, although I add that our association has no mechanism for taking industry positions in such matters as are under consideration today and my comments should be considered personal.

Most offshore wells are drilled by contractors such as Odeco, operating under contracts to the producers, typically the major oil companies. We own the equipment, employ the crews, and manage the day-to-day activities in getting the wells drilled. The operators specify the locations, depths, and well plans and designs and we drill the holes as specified, turning over to them a completed

oil or gas well or plugging or abandoning a dry hole. We usually operate offshore on a day rate basis in view of the high costs and unpredictable nature of offshore drilling. When a well is completed we move along to another location and the operator's crews take over the production of the well.

Most of us got our starts off Louisiana since World War II. The offshore drilling business has been, until recent years, an almost entirely American business. Today there is hardly a shallow ocean in the world which is not receiving serious attention by explorers and most of them have already felt our drills. We have recently enjoyed a great increase in demand for our services, and are aggressively expanding our fleets. For the first time we are encountering significant competition from foreign contractors.

During these almost thirty years of my active involvement in this field, our industry has lived with a number of problems.

First, the technology had to be developed as we went, moving more rapidly and without as good a background of knowledge or experience as would have been preferable from some points of view. We were pioneering a new industry in a difficult environment, adding the problems of wind, waves, weather, and other marine perils to the already tricky business of boring deep into the earth.

Second, we have lived through period of serious business ups and downs, brisk competition in a changing technology, adding to the insecurity of our endeavors.

Third, ours is a capital intensive enterprise, requiring the investment of, to us, great sums, based more upon judgment and projections than upon adequate field betting that a particular device would work better than another and that the industry would need and use it, and counting upon governments not to impose unreasonable restraints on our activity.

Fourth, we have repeatedly and chronically suffered from not knowing what governments would do next. In this country, we were shut down completely for a couple of years on one occasion, had all lease sales cancelled for a time, had sales announced, then withdrawn, new areas scheduled for leasing, then cancelled. We had a price freeze which caught us at a low point of our business fortunes and held us there for many months. On the oil and gas side we remain about the only so-called free enterprise whose product prices are frozen. Fortunately, our rigs are mobile so that we can move about the world looking for the most favorable business and political climate at any given time. While similar problems exist in most foreign countries, I must in fairness observe that most of them have been more even-handed and consistent in their approaches to offshore development than we, have appeared better to define their goals and order their priorities, seem to have more clearly responded to questions such as, "what is most important—to get the top dollar into the Treasury for offshore lands or to move quickly to find and develop new sources of oil and gas, or to safeguard States' rights at the cost of delays, or is protection of the environment the number one priority? We here still have not made up our minds just which of these is most important, which comes second, and so forth. We seem unwilling to face the needed trade-offs, striving for absolute perfection in every area, and thus accomplishing little.

I further observe that we face a growing, changing body of government control and regulation in our business, not only in this country, but all around the world. Again, however, I know of no other jurisdiction which has as much uncertainty and overlap of rules, laws, agencies, and regulations as our own. We have three different Federal agencies claiming responsibility for control of pollution, three asserting control of working conditions of our crews, employer's liability is governed under three separate and somewhat conflicting statutes and pipeline safety and standards are the responsibility of three agencies.

You can see, then, that our decisions to expand our fleets at today's prices of \$40 to \$50 million per copy, are very difficult to make in spite of a loudly signaled need for energy and for developing our offshore oil and gas resources. Lead time for new rigs is about two years—costs are going up astronomically—shipyards are busy—and even at this late date we still have no idea whether or when, for example, rigs will be allowed to enter our so-called frontier areas—whether we should now be ordering equipment and training people in anticipation of their availability.

Over the years that I've been in the business, we have seen the contract drilling industry shrink from about 4,000 to 1973's roughly 1,400, and the experienced crews drifted into other industries. Today, we are scrambling to expand in order

to meet our customers' and our country's newly indicated needs, but it is coming hard in view of the uncertainties of our future, mostly the unknowns of Government policy, and the lead time involved.

In your invitation to appear here today, you asked for my views on several specific matters on which I shall comment.

(1) My experience with operations off Louisiana and Texas leaves me of the opinion that there is little or no basic conflict between Federal and State programs once the geographic lines of jurisdiction are determined. Both of those States have worked in surprisingly close harmony with the Federal authorities, this in spite of the fact that they enjoyed no participation whatsoever in the proceeds from these operations. I think it is a matter of equity and fairness that the states should be compensated for the costs of public services required to support our activities. As a Louisianan I welcome the current re-assessment of that position. Our state had to justify its past cooperative stance by the fact that it enjoyed the benefits of onshore production, which may not be the case with other coastal states.

(2) I think the matter of increasing the roles of the states in the decision-making process, however, presents problems from an operational standpoint and will unreasonably delay commencement of exploration. Such determination should be made on political and constitutional grounds, however, which are not in my field of expertise. But it seems to me that our overall national interest in the need for energy should be the paramount consideration, at this point in time. The states are clearly entitled to a fair stake in the revenues, but going beyond that into operations or providing them with the power to block all activity does not seem to me reasonable or necessary.

(3) Under the traditions of our industry and based upon my experience, I think that oil and gas exploration activities are inseparable from those of development and production. I feel that our present system of competitive bidding and operations by private companies is yielding maximum income to the government, and is more efficient than any government-operated scheme which I can envision. While companies have, I think, hurt themselves by paying too much for most offshore leases in the past, I view that as their problem, and the public is the beneficiary of this system and it should not be changed. My observation of government agencies at work in other fields as well as my experience in drilling for other government oil companies around the world, and my two weeks' visit to study the Russian oil field activities which I was privileged to make last year, all support my conviction that our own system is more efficient and is more likely to find and produce the needed resources sooner and at a lower cost than any government agency can achieve.

The real problem in these new areas, gentlemen, and I hope you'll remember this above all else I shall say, is whether or not there is any oil or gas to be found in the new areas under consideration. In any such presently untested area, I'd say that the odds are against finding such deposits. I fear that many people in government have not considered this, the real problem. All of the oil industry's expertise will be needed to find it if it's there, it has to be found by drilling and will never be found in a Washington office. The U.S.G.S.'s record in evaluating leases to date is less than bright, and I doubt that any agency can perform even as well as they in this most complex endeavor.

(4) We have heard of many proposals to change the method of leasing. I feel that the present system is a good one and any basic changes would not be in the public interest, particularly if that interest is, as I believe it to be, about as follows: (i) as quickly as possible to find and develop new resources of oil and gas, and (ii) to maximize income from this into Federal and State treasuries. Although I've mentioned that the industry has overpaid for the right to drill, this is no reason to change the scheme. As a very small participant in bidding, I also report that we have been able to participate in such bidding to the extent of our financial ability, and do not feel that the larger companies had an unfair advantage over us other than the obvious one, their greater resources. Bids on a basis other than a cash bonus leave an unmanageable judgment factor to be administered by a Government agency, and such schemes will probably not be wholly acceptable under our system and tradition.

(5) I am of the opinion that the ocean environment is a changing one and that baseline studies will as often as not lead to erroneous conclusions. Any study of geology confirms that we live on a changing planet and nothing remains constant.

I also believe that the exercise of conducting full environmental impact hearings for each and every lease sale, particularly in areas already under development, is a waste of time and money and effort. Down in Louisiana, for instance,

every time there is such a hearing we have to go through the entire exercise, and we listen over and over again to the same parade of drillers, fishermen, politicians, chambers of commerce, college students, scientists, and the like. We've heard little new since the first one. Some shortened procedures should be developed for lease offerings subsequent to the first one in an area.

(6) I think the present rules and regulations governing operating practices are adequate to protect the public interest. If they err it is in the direction of being too severe and detailed. They are under continual review and up-dating, and, while they have at times gone overboard in reaction to adverse publicity surrounding some incident, I believe them to be sufficient and the present policy of continuous review promises to meet changing conditions and protect the public.

One of our most crying needs is that which I touched upon earlier, that of clarifying the authority of the various agencies which deal with our activities. For example, is the Environmental Protection Agency, or the U.S. Coast Guard, or the U.S. Geological Survey responsible for environmental surveillance, regulations and enforcement? Is the U.S.G.S., or the Coast Guard, or O.S.H.A. responsible for regulating safety and working conditions? Are pipelines the responsibility of the F.P.C. or U.S. Engineers or U.S.G.S. or the Department of Transportation? Are workers protected under statutes written for seamen, or for longshoremen and harbor workers, or for industrial employees? My list could go on. There is ambiguity and overlap and we have real problems with this. Compensation suits are a nightmare and have clogged our Federal courts as suits are filed and cases tried under a confusion of statutes.

(7) Again I suggest that it seems to me only fair that the interests of affected coastal States should be recognized by granting them reasonable participation in the revenues from activities off their shores. Louisiana has fought a losing battle with this for 20 years, with the formidable resources of the national government apparently lined up against her. We now welcome the support of other potentially to-be affected States and other fair-minded leaders, and I think that equity dictates that the States should share substantially in these revenues, just as the inland States now receive revenues from Federal lands within their borders.

I appreciate very much the opportunity to enter these comments into the record and hope I have been of some help to you.

Senator METCALF. Our next witness is Mr. Arthur O. Spaulding, president of the American Institute of Professional Geologists. We are glad to have you here, Mr. Spaulding.

We have a tax bill on the floor and I don't know when the lights will start to flash and the bells will start to ring, so I would hope that you would be able to summarize your statement and without objection the statement will appear in the record in its entirety as if read.

STATEMENT OF ARTHUR O. SPAULDING, PRESIDENT, AMERICAN INSTITUTE OF PROFESSIONAL GEOLOGISTS

Mr. SPAULDING. I shall try to condense my remarks into something relatively short and as fast as possible. In fact, I might like to open up by saying Mr. Laborde has given my speech for me. I might even ask him to become a member of the American Institute of Professional Geologists based on his remarks.

I would like to thumb through my statement and point out to you the importance really of geology in a management policy for public lands and in appraising geological prospects to be sure that the terms of oil and gas leases reflect the quality of those prospects.

At the outset I address Senate bill 130 and my comment there is the same as Mr. Laborde's, to the effect that it might be very helpful if revenues were returned to the coastal States suffering impact from off-shore operations. We have had that experience in the city of Los Angeles where we have seen complaints at the outset of operations vanish as soon as royalty payments commence.

Senator METCALF. Now, I have been down to Long Beach and it bristles with wells on and off shore. Those areas have benefited from oil development.

Mr. SPAULDING. Indeed, they have.

Senator METCALF. They have enough oil so they don't have any school taxes down there.

Mr. SPAULDING. Well, my experience has been with the city of Los Angeles in the past where I was the oil administrator for almost 12 years. My comments relate to usual oil operations rather than offshore operations, although we can have some of those too. It is true the city of Long Beach, the State of California off of Huntington Beach, have been the recipient of vast oil royalty payments.

Senator METCALF. It would seem to me to be entirely different when you go into a very sparsely settled area, such as Alaska, or such as some of the areas of the eastern shore, Maryland. That would have a tremendous impact on a very small community. We have to build schools, roads, and so forth. It would be harder for these rural areas that it is for the city of Los Angeles who has a tremendous tax base.

Mr. SPAULDING. My impression though is any payments made by the Federal Government to those coastal States would tend to ease the pain and suffering connected with any offshore package.

Senator METCALF. Would you suggest payments to coastal States and have the Governor make the distribution of payments to local communities?

Mr. SPAULDING. I am really unsure how that distribution might be made. I am suggesting it would tend to ease the problem if there were some monetary returns involved there.

Senator METCALF. I have been impressed by the unanimity of the testimony here. Everybody says we have to help the coastal communities. Sometimes we are not sure just how we work it out. But this impact on the coastal communities is recognized and there is wide support for such payment, whether it is out of the oil revenues or appropriations in advance to be repaid or something of that sort.

Mr. SPAULDING. I think it should be borne in mind at the same time that the impacts tend to be overstated. In my most recent employment in California we did make a thorough environmental study on operations off the coast of California. The conclusions we drew were the impact upon the coastal communities would be relatively minor in that most of those coastal communities have already geared up for the kind of future operations that will be necessary to supply them with oil and gas. I speak in particular of refineries and the other coastal facilities which would be necessary to import those supplies that those people need.

Senator METCALF. Well, California is a strangely different and perhaps unique sort of a phenomena in America. I would say the impact on some of the coastal communities of Alaska or Maryland or North Carolina might be quite different.

Mr. SPAULDING. I would tend to agree.

I did want to dwell in particular on Senate bill 426, wherein it is proposed that the Federal Government would actually enter into the business of exploration, both with respect to seismic activity and stratographic drilling. The point of my remarks has to do with the risk that those activities would entertain. Again, I would agree with Mr.

Laborde that that risk of failure is excessive. I would not take the bet that he suggested to you because my bet would be the same as his, that the chances of finding substantial and commercial accumulations of oil and gas are very much against success.

Later in my message I talk about the administration of public lands or their management in connection with oil and gas leasing, based upon my experience for the city of Los Angeles during the period of the 1960's. I point out in my statement the different kinds of techniques that might be considered, depending again upon the quality of the oil prospects. I list a number of examples to illustrate the points I am making.

I think one of the more important aspects of my testimony here has to do with the speculative values that attach to prospects that are really rather poorly defined. If the Federal Government would enter into stratigraphic drilling, for example, and find that the prospects that are speculative to begin with turn out to be barren, or that those prospects indeed would vanish as a consequence of that exploration, that all speculative values would similarly vanish. I think that is an important point to bear in mind in determining the policy that would go along with the management of public lands for leasing purposes.

Contrarily, if it turns out in some later time in the mature stages of exploration and development that public lands may be considered productive before they are leased, this would change the attitude at the outset regarding the manner in which those leases might be offered and the factor upon which bids would be received.

So that basically is the testimony of that part of my statement.

I mention the importance of timing in the initiation of early efforts, and again Mr. Laborde stated it eloquently when he said we should be doing something rather than nothing. We have to do something rather quickly.

Finally, I would like to read the closing statements I have which has to do with a commentary made by Mr. Laborde related to the geological cycles that have taken place since the earliest time. My closing remarks go to the following effect:

For millions of millenia sediments have been deposited in the world's oceans, and oil and gas have been generated for subsequent accumulation in rocks made from these sediments. As these rocks have been subjected to the great forces responsible for physiographic change, most notably mountain building, these rocks and their resident oil fields have been elevated above sea level where erosion begins. Gradually, these rocks are worn away, releasing their oil and gas to the atmosphere and to the land and seascape. Eventually, a great deal of this released petroleum will find its way into the Earth's oceans, the ultimate sinks into which everything must drain.

The cycle of deposition, lithification, petroleum generation and accumulation, uplift and erosion, has been repeated endlessly during geological time. Countless oilfields have been created and destroyed, and the oceans have received billions of barrels of petroleum, without losing their capacity to nourish an infinite variety of living form and, indeed, be the source of life itself.

Then I go on to illustrate that with an example there, the coast of California, where in fact the uplift has taken place and there are a number of oil fields draining into the Santa Barbara Channel. I con-

clude by the statement that the knowledge that the oceans have received, without apparent injury, the vast amounts of oil discharged into them by natural processes should be reassuring to anyone concerned with their capacity to renew themselves and recover from manifold assault upon them.

I do attach a letter that may be of interest, prepared in 1970, outlining some of the events which may have been anticipated.

Senator METCALF. It will be included in the record as part of your remarks.

I appreciate your analysis and know the committee will appreciate your remarks. Last year we had Senator Jackson's bills. This year, indicative of the increased interest we have several bills. Many senators have suggested various ways of procedure. Maybe it means that now the time has come to change our OCS policies.

At this stage of a hearing many of the things are necessarily repetitious. The repetition helps. It builds up an accumulation of evidence in support of various things. But you have had a very interesting suggestion in your testimony that I would like to have you elaborate on. That is your suggestion that we have a combination of based royalty and net profit share.

Mr. SPAULDING. Yes.

Senator METCALF. I think that is a new suggestion, or at least it is an innovation here.

With these huge oil companies that we have, how would you define the net profit that would accrue from a separate lease?

Mr. SPAULDING. You have to consider again the equality of the oil prospects upon which the lease would be based. If for example very little is known about the prospect or if it should appear that the outlet for obtaining production is minimal, then really nothing much would change from the present system where a fixed base royalty would be built into the lease and then a cash bonus would be paid for it. This gives effect to the highly speculative value and the attraction of that value in that kind of prospect. But, on the other hand, if there should be a reasonable outlook that production would be obtained, then you could fix a net profits interest into the terms of the lease required. This would give the lessor a bit of the production in the event the production was obtained. The cash bonus would be less if the interest was not specified in the lease. But if production should be obtained while there is an interest in the lessor, go ahead by that means.

On the other hand, if you come to a situation such as Long Beach where production had been established on both ends of a very prominent geological structure, and these remarks are contained in my statement, it was clear that production would be obtained in that structure in between the areas where production had been established. So, therefore, the bids came in clearly and solely on a net profits basis. That is the way the city of Long Beach did that.

I point out hastily that that comes only as a result of extensive exploration and development experience, where the lessor does indeed know that his lands are going to be productive. It turned out in that case rather interestingly that the production that has subsequently been obtained from the city of Long Beach turned out to be less because of drainage from areas on either side of their leasehold.

Senator METCALF. As the devil's advocate, that appears to me to be backwards.

Mr. SPAULDING. In what respect, sir?

Senator METCALF. I think you turned it around. The Government's share should be fixed the other way. We have the high risk and the low risk areas, and the net profit and the royalty provisions would accrue to the Government in just the opposite way from which you have explained it to me.

Mr. SPAULDING. Perhaps I didn't do a satisfactory job in explaining it.

Senator METCALF. Perhaps I didn't understand an adequate explanation. Mr. Spaulding, I am groping in this area.

Mr. SPAULDING. Where it is clear production will be obtained, as it was in the case of the city of Long Beach—

Senator METCALF. Talk about the initial lease. Talk about the initial high risk sort of lease.

Mr. SPAULDING. Where the prospects would be that no oil and gas production would be found?

Senator METCALF. Perhaps.

Mr. SPAULDING. Then perhaps the only income that the lessor, in this case the United States, would receive, would be in the form of a cash bonus payment.

Senator METCALF. And no royalty payment whatsoever?

Mr. SPAULDING. Because nothing had been found.

Senator METCALF. And then in the low-risk lease, where we have a confirmed field—

Mr. SPAULDING. Yes.

Senator METCALF [continuing]. There would be relatively higher royalty?

Mr. SPAULDING. Correct. In the case of Long Beach it was 100 percent in some cases.

Senator METCALF. Of course, bookkeeping is such an esoteric art, that I don't know how—for the large corporations—we would ever define that profit. I don't know how we would ever get through this.

Mr. SPAULDING. There is an accustomed form, a standard form, used by accountants to attach to an oil and gas lease where the net profits' interest is involved.

Senator METCALF. It is a lot different from the old country grocer who had a spindle on his desk, and every time somebody bought something he put a bill on the spindle and at the end of the month added it up. It is sort of high finance today to go through and find out how Exxon or Texaco—and I am not picking them out—they are the big ones in the field—how they estimate their profits from their sales abroad and so forth. I feel that it would be a dangerous sort of situation if we had to rely on some of the auditors and bookkeepers we have.

Mr. SPAULDING. I am neither an auditor nor a bookkeeper, but the City of Los Angeles did indeed enter into two net profit leases at the time I was the administrator of their program. Both sides clearly have to agree to the terms of that net profit agreement.

Senator METCALF. I am not trying to derogate your suggestions, I think it is an interesting one and I think it is one we should look to and explore. My questions were to find out how it would be applied.

I think this is a new suggestion and I thank you for your contribution.

Thank you for coming, Mr. Spaulding. Thank you for your contribution. Thank you for a fine statement analyzing the legislation and a new innovative suggestion.

[The prepared statement of Mr. Spaulding and letter follows:]

STATEMENT OF ARTHUR O. SPAULDING, PRESIDENT OF THE AMERICAN INSTITUTE OF PROFESSIONAL GEOLOGISTS

My name is Arthur O. Spaulding, and I live at 124 Cherry Street, Denver, Colorado, 80220. I hold Bachelor of Science and Master of Science degrees in geology from the California Institute of Technology, and I am Registered Geologist No. 21 in the State of California. I am a member of the American Association of Petroleum Geologists and former president of its Pacific Section. I am also a member of the Society of Petroleum Engineers and a former director of its Los Angeles Basin Section. I have worked for the Shell Oil Company as a petroleum engineer and for the State of California as an appraisal engineer for mineral deposits, principally oil and gas. From 1962 to 1973 I served the City of Los Angeles as Assistant City Administrative Officer in Charge of Petroleum Administration. Last year I acted as a special consultant to the Western Oil and Gas Association, managing the Association's Outer Continental Shelf Environmental Assessment Project, and now I am General Manager of the Rocky Mountain Oil and Gas Association. I appear before you as President of the American Institute of Professional Geologists and speak for that organization.

Owing to the large number of bills before you for consideration, I intend to treat some of them rather sparingly and concentrate on others which I deem more important. In all my remarks, however, I intend to stress the fundamental necessity of understanding geological concepts in the management of OCS lands. To ignore geology in developing leasing policy for public lands is to overlook an extremely useful science.

S. 130

Because it is short and relatively simple to understand, I should like to comment first on S. 130. The bill proposes to provide for the payment of revenues derived from federal Outer Continental Shelf lands to coastal states affected by offshore operations. Such payments would be in the form of compensation to the states for their expenditures which may be necessary to accommodate OCS development operations. Thus, the bill is similar to the 1920 Mineral Leasing Act wherein payments are authorized to states, if U.S. public lands are under development.

There is a precedent for payments of this kind in California, where tax revenues from state tide and submerged lands are shared in rather modest proportion with the counties contiguous with state leases. Further, experience in the City of Los Angeles in connection with urban drilling and production shows that complaints about such activities virtually cease when the payment of oil and gas royalties to property owners commence, but in this case it must be remembered that the royalty recipient has a vested interest in production.

When considering the virtues of S. 130, the Committee must bear in mind that OCS lands belong to all the people of the United States, and it is difficult to counter the argument that, if coastal states must contend with any inconvenience stemming from OCS operations, coastal states will also derive the benefits of greater business activity and tax revenues, as interior states do not. On the basis of my experience, it is my impression that S. 130 would make OCS operations more palatable.

S. 470

S. 470 proposes to suspend OCS leasing to mid 1976 or to an earlier date, if Coastal Zone Management programs have been satisfactorily completed. My single comment here relates to the time element involved in postponement.

It has been evident for decades that the United States would eventually run short of energy, a point upon which I shall expand below in connection with S. 426. The President and the Congress should have been aware of this approaching and inescapable condition for the past ten years, and they should have been earnestly contending with the problem since 1970, when domestic U.S.

petroleum production began its current alarming decline. Already, we are at least five years late in coming to grips with the issue of developing new domestic supplies, and further delay will serve only to exacerbate the impasse. The Committee must face the question, "Can the United States afford the luxury of deliberating an extra year and spending 25 billion additional dollars for imported oil?"

S. 426

This bill, sponsored by Mr. Hollings and others, proposes comprehensive amendments to the Outer Continental Shelf Lands Act. The amendments I wish to address in my role as a professional geologist are those related to exploration performed by the federal government, the management of public lands and the vital aspect of time in commencing leasing and exploration.

Before I begin my commentary, however, I note that Sen. Hollings stated in his introduction of S. 426 that in all the years of rapid consumption of petroleum "we never really saw the handwriting on the wall" to the effect that the days of cheap energy (read oil and gas) are numbered. With all due respect to the Senator and the multitude of others who failed to read that handwriting, that message has been in print at least since 1949 when Scientific American published a forecast of supply and demand and predicted the end of the era of cheap petroleum production. For the committee's information I am attaching a copy of a letter which I wrote to Calvin S. Hamilton, Director of Planning for the City of Los Angeles in 1970. This letter has turned out to be an accurate forecast of events which have transpired since that date.

In his preamble to S. 426 Sen. Hollings builds a substantial case for developing the OCS lands of the United States in order to provide new domestic petroleum supplies and thereby reduce our dependence on foreign oil. Quite properly, he advocates that this development program proceed in a way consistent with the values of these lands, both intrinsically and environmentally.

We heartily endorse Sen. Hollings' conclusion that OCS drilling and production proceed at once to alleviate our domestic supply shortage and the paralysis which is currently afflicting our economy. And we agree that no offshore work should commence, if adequate measures to protect the marine and coastal environments are not taken in advance. We believe, however, that his proposed program of federal exploration to determine the presence or absence of hydrocarbon reserves is ill-conceived, as it fails to consider the risk inherent in looking for something which may not be there.

Reading Mr. Hollings' opening remarks, I have the clear impression that he believes it is both inevitable and assured that substantial volumes of oil and gas will be found in the frontier areas of the OCS. My message to you gentlemen is that such is by no means the case. Despite glowing reports of the productive promise of certain regions of the OCS, it must be understood that prospects for finding hydrocarbon reserves are based upon meager information, and exploration will be fraught with a high risk of failure.

The Committee could be flooded with statistics to illustrate the risk attending petroleum exploration. For example, it may be readily documented that only about two per cent of wildcat wells are ever successful in discovering commercial oil and gas fields. Rather than present the Committee with this kind of information, I should like to draw upon my own experience as a geologist and as an administrator of public lands to advise you to leave petroleum exploration to those prepared to undertake the high risks involved.

Only under the unusual circumstances of federal acreage being essentially proven productive by adjacent drilling, should the government consider entering directly into the oil business.

To illustrate my advice to you, I should like to describe several examples involving leases issued by the City of Los Angeles. One parcel of nearly 10,000 acres located not far from the Wilmington Oil Field, which is the second largest oil field in the conterminous United States, was leased in 1968 for a bonus payment of \$2,513,000. Subsequently, a wildcat well was drilled and abandoned and the lease surrendered. In another case a parcel of 1500 acres was leased for a cash bonus of \$1,100,000. A test well was drilled and redrilled without finding commercial hydrocarbons, despite its location adjoining established production.

The point of these examples is that many oil prospective areas appear to possess outstanding promise and turn out to be barren of commercial hydrocarbons. In each case the lease was situated quite close to proven production and in areas where a great deal was known about subsurface geological prospects. A more recent and extreme example has occurred since the sale of OCS leases seaward

of the Mississippi, Alabama and Florida coast lines; more than \$200,000,000 was spent for drilling rights to one tract, and no commercial oil or gas has yet been found.

These failures may be attributed to bad luck, and, of course, that is true, but the point should not be lost upon the Committee that all of these prospects had been conceived by highly competent geologists with years of oil exploration experience, and still the holes were dry.

The impression that I am trying to convey is that all is not oil that irridesces. There may be glittering prospects of substantial hydrocarbon accumulations in OCS frontier areas, but all of these are located in the minds of geologists and are anything but tangible. When Senator Hollings metaphorically speaks of appraising an antique to determine its value before selling it, his bird is in the hand and not obscurely located benether thousands of feet of rock.

In my opinion, the most likely outcome of a federal oil and gas exploration program would be the discovery that many attractive oil prospective areas will turn out to be barren of production. As a result, exploration will condemn these areas rather than demonstrate their productivity, and any speculative values which may have once been attached to these prospects will have been destroyed. The recent OCS sale seaward of South Texas displayed the truth of this probability, when two deep stratigraphic tests revealed the absence of rocks in which hydrocarbons might accumulate in certain portions of the sale area. The upshot of such exploration will inevitably be vastly reduced cash bonuses for leases, if bonuses are paid at all.

In short, my counsel to you is that risk ventures should be undertaken only by those who are prepared to take risks and not by the U.S. taxpayer. I shall outline below, however, a means by which the U.S. may give effect to the risks inherent in exploration without sacrificing all of the speculative attraction connected with leasing in unexplored areas.

MANAGEMENT OF PUBLIC LANDS FOR OIL AND GAS LEASING:

From the foregoing it should be clear that geology plays an important role in determining the terms under which leasing of public lands should be proposed. If the potentialities of finding oil and gas are considered poor based upon geology, it would be inappropriate to lease such lands with the high expectation of developing production. Conversely, lands situated near production may have a high probability of being productive. The manner in which leases are offered for sale should reflect the quality of oil prospects within them. In frontier OCS areas, where so little is known about subsurface geology, most would be in the first category.

If we assume a parcel of land has little promise of being productive, how should a lease be offered under competitive bidding procedures. It may be that the only value such lands possess is speculative and that the only oil and gas revenues which these lands will return will be in the form of cash bonus payments. Therefore, the leases should be drawn to capitalize upon this speculative potentiality. In other words minimum royalty terms should evoke maximum cash bonus bids.

On the other hand, if lands to be leased are relatively certain to be productive, as was the case at offshore Long Beach where production had been established at both ends of a prominent geological structure, the lease should be designed to give effect to such a probability. At Long Beach bids were received on the basis of an interest in net profits, and no base royalty was involved.

For the intermediate case where neither dry holes nor commercial production would be surprising, consideration should give given to both a base royalty and retention of an interest in net profits to be shared after payout of exploration and development costs. Obviously, a lease provision to share in net profits will have the effect of lowering a cash bonus bid, but it does furnish the mechanism for participating in commercial production.

As an illustration of these procedures and the importance of geology in leasing, the City of Los Angeles owns certain lands near the Wilmington Oil Field. Early in the 1960's these lands were considered attractive for their hydrocarbon potential, and the City prepared these lands for oil and gas leasing. Against my advice, the bid factor was selected as a percentage of net profits to be paid to the City in the event of production. No base royalty was involved, and no cash bonus was required. The successful bidder bid approximately 75% and subsequently drilled two dry holes and surrendered the lease. As a result the City received no

cash income of any kind related to the oil and gas potential of these lands. My guess is that, had the lease provided for a base royalty and a fixed net profits interest with the bid factor being cash, a substantial bonus payment would have been made.

THE IMPORTANCE OF TIMING IN COMMENCING OCS LEASING:

S. 426 proposes to establish a moratorium on leasing in virtually all OCS areas except the Gulf of Mexico until federal oil and gas exploration has been implemented. Approval of the bill will therefore delay the development of new domestic supplies of oil and gas for years.

With regard to the need for new petroleum supplies I can speak authoritatively chiefly for the western portion of the United States where most of my experience has been. In this region with the sale of OCS leases this year and their successful development, it will be fully ten years before domestic supplies come into some semblance of balance with demand. I suspect the same conditions pertain to the remainder of the country. In the meantime we must continue to obtain our supply requirements from abroad probably at a cost of about \$25 billion per year.

The moratorium proposed in S. 426 will further increase our dependence on imported oil as domestic reserves decline and energy demand increases. Natural gas, which is expected to be in such short supply by the end of the present decade in California that curtailment of residential deliveries may be necessary, will also be adversely affected by the moratorium. Again, you gentlemen should ponder the question, "Can we continue to afford the luxury of depending upon others for such vital commodities as oil and gas?"

The day of decision is at hand.

S. 81

This bill would provide coastal states with a procedure by which OCS sales might be delayed as long as three years to furnish time in which adverse environmental or economic effects from OCS development might be anticipated and ameliorated.

My earlier remarks about the urgent need for new petroleum supplies would be applicable to S. 81 as well.

S. 521

In general the commentary I have prepared for S. 426 would be much the same as that which might be stated for selected portions of this bill, especially with regard to the proposal for stratigraphic drilling and proposed leasing policy. In my view, any kind of exploratory drilling is more apt to demonstrate the absence of hydrocarbon reserves than to discover new oil and gas fields. Under Section 203 of S. 521 the Secretary is authorized to choose the most appropriate method of leasing to represent the interests of the United States and to reflect the quality of oil prospects, as I have outlined above.

Aside from these remarks, once again, I must caution the Committee that hydrocarbon reserves not yet found in the Outer Continental Shelf should not be considered certain to be discovered. On Page 3 of S. 521 the Congress should find and declare that (7) "The Outer Continental Shelf may contain significant quantities of petroleum and natural gas which may be a vital national reserve that must be carefully managed in the public interest."

On page 10 provision is made for a "National Strategic Energy Reserve". It should be pointed out that for such a reserve to be ready and useful, wells must be drilled and the reserve developed just as it were intended for immediate production. If the reserve area should be merely designated and left undrilled, years may elapse between the time drilling begins and the time production becomes available to meet a strategic need.

CLOSING STATEMENT

The Committee's concern for environmental protection is understandable and quite commendable. But perhaps the Committee may not be aware of geological events which have affected the purity of the earth's environment, and especially that of the oceans, over the hundred of millions of years which may be read in considerable detail in the earth's geological history.

For millions of millenia sediments have been deposited in the world's oceans, and oil and gas have been generated for subsequent accumulation in rocks made from these sediments. As these rocks have been subjected to the great

forces responsible for physiographic change, most notably mountain building, these rocks and their resident oil fields have been elevated above sea level where erosion begins. Gradually, these rocks are worn away, releasing their oil and gas to the atmosphere and to the land and seascape. Eventually, a great deal of this released petroleum will find its way into the earth's oceans, the ultimate sinks into which everything must drain.

The cycle of deposition, lithification, petroleum generation and accumulation, uplift and erosion, has been repeated endlessly during geological time. Countless oil fields have been created and destroyed, and the oceans have received billions of barrels of petroleum, without losing their capacity to nourish and infinite variety of living forms and, indeed, be the source of life itself.

We may watch this geological cycle at various stages in its evolution. One of the most dramatic locations where it may be observed is the California coastline, where the earth has been in ferment for ten's of millions of years, as a result of the collision of the East Pacific crustal plate with the more stable plate making up the North American continent. Oil fields formed in Miocene and Pliocene time have been uplifted, eroded, and are now draining into the adjoining waters of the Pacific Ocean, as nature intends.

The knowledge that the oceans have received, without apparent injury, the vast amounts of oil discharged into them by natural processes should be reassuring to anyone concerned with their capacity to renew themselves and recover from man's assault upon them.

OCTOBER 8, 1970.

Mr. CALVIN S. HAMILTON,
Director of Planning,
Los Angeles, Calif.

DEAR CAL: I have read your staff's Working Paper, *An Environmental Conservation Element*, with rapt attention, especially those parts related to oil and gas. While I have a number of comments regarding the chapter on mineral resources, my principal interest and the topic of this letter concerns the opening section on air pollution.

At the outset perhaps I should say that in my view air pollution, or more succinctly L.A. smog, is a pervasive problem, and only unusual, even radical, solutions can solve it. The proposal I am about to broach to you is in the latter category.

Your Working Paper reports that 90% of L.A. smog is created by automobile use; ergo, abolish automobiles and you have eliminated nearly all smog. While I can appreciate how badly we would all founder in the face of that prohibition, my suggestion would still restrict the use of cars, not by outright fiat or manifesto, but rather by economic measures imposed by the Federal government. The most intriguing aspects of my idea are the side effects.

To set the stage for the introduction of my proposal, I should like to give you my impressions of the energy plight of the United States as it concerns oil and gas, which make up 75% of all energy consumed throughout the country. For years the United States has had abundant and therefore cheap supplies of these commodities readily available from domestic sources; now and sharply increasingly in the future, however, the U.S. will have to rely upon foreign sources of supply to fuel its requirements. The reasons for this shift are not obscure.

Less than a year ago the United States government acted to reduce the depletion allowance afforded oil producers from 27½% to 22%. I believe this reduction may be attributed to the abject public image presented by the oil industry in combination with the wrath exhibited by the public against the industry. Whatever the cause, the result has been the further inhibition of domestic oil exploration at a time when new hydrocarbon reserves are desperately needed.

More stultifying to current exploration than a smaller depletion allowance, however, has been the recent outcry to protect environmental quality. I don't wish to argue the merit of this crusade, for it has much, but I simply want to stress its results upon our energy supply. One clear and present effect is now revealed in the form of power shortages on the East coast—fuel oil and coal pure enough to comply with air pollution standards are just not available in sufficient quantity to meet the demand for power.

In any event, as a consequence of the inexcusable mistakes of the oil industry and Federal officials in the Santa Barbara Channel, followed by emotional

over-reaction by California State authorities, not one well has been drilled in California waters, except those at Long Beach and those under our jurisdiction, for almost two years. The moratorium on leasing in the Gulf of Mexico and the denial of Occidental Petroleum Corporation's permit in Pacific Palisades are other examples of how environmental considerations have stifled oil exploration.

I mentioned above that new reserves of oil and gas are desperately needed. I should like to explain that opinion. A year ago about one-fourth of the oil consumed each day in the United States had to be imported from foreign countries, notably Middle Eastern and Venezuela. Six months ago a Syrian pipeline was shut down, and more recently Libya took steps to deny the free world a significant amount of oil. The upshot of these events was that oil which was formerly delivered on the eastern seaboard at \$1.80/bbl., now costs between \$3.50 and \$4.00 per barrel, when it is available. This increase has been brought about by tanker dislocations in shipping oil from the Persian Gulf around the Cape of Good Hope.

Oil in the United States costs a refiner about \$3.00 per barrel. With the price of imported crude up to one-third higher, it is easy to predict the current trend in oil movement. The result is that the reserve producing capacity of the United States, located chiefly in Texas and Louisiana, is being taxed to the limit. The only relief now in sight is that the recent settlements regarding higher posted prices for Libyan and other mid-East oils will cause deliveries from those nations to resume—but obviously at higher prices.

My narrative so far has been aimed largely at the idea that domestic oil and gas are in short supply. It is my contention that despite known oil reserves, e.g., Alaskan, this condition will only get worse, for the local demand will inevitably increase. The United States therefore will eventually become quite dependent upon foreign oil and, in that stage, will find itself no different from the highly industrialized nations of Western Europe and Japan. At the threshold of this dependence, the United States will be confronted by expensive oil with prices determined by Oriental potentates rather than in the United States marketplace.

The essence of my proposition is not to wait until we are forced by foreign powers to escalate oil prices but rather to do it now and plan for the future. I am being indirect in referring to oil prices, as it is the price of gasoline which is important, but one is irrevocably tied to the other.

In Europe, which depends upon Middle Eastern oil, gasoline at the pump costs between 50¢ and 80¢ per gallon. More specifically, the French buy their crude oil in Algeria for say \$2.50 per barrel and manufacture commercial gasoline which costs 80¢/gallon. Quite a contrast with our manufacturing process where the oil goes in at \$3.00 per barrel to make gasoline selling for 35¢/gallon. The answers are simple: the French government absorbs the profit, whereas in the United States the free enterprise system obtains—as long as domestic supplies of crude are abundant.

If we are faced ultimately with a shortage of domestic oil and dependence upon foreign supplies, let us anticipate those realities and forecast their impact upon our air pollution problems, which is where this thesis began. Is there reason to believe our life style here would be greatly different from those of other countries which rely upon imported energy? I don't think so.

For the sake of argument, suppose gasoline prices were arbitrarily set at 80¢ per gallon, as they are in France, by governmental edict. Such a price might be expected after domestic oil sources were depleted. Let us predict the consequences:

- a. An economic penalty, but not a prohibition, would be imposed upon automobile usage. The result would be the virtual extinction of large, high-powered cars, as has been the case in Europe for years, and the use of small, low-powered efficient vehicles emphasizing economy:
- b. Public transportation would become economically more attractive, again as it is in Europe. In fact, with the funds the United States would collect from 80¢ gasoline, rapid transit lines could be constructed almost at will:
- c. The price of crude oil would rise commensurately and provide sufficient profit incentive to spur renewed interest in finding domestic oil reserves. At the same time the depletion allowance, which is so poorly understood by the public, could be eliminated, if it were offset by an adequate price increase. Replenished amounts of domestic oil would render us less vulnerable to the vicissitudes of Oriental potentates:

d. The automobile manufacturers and the oil industry would be severely dislocated:

The beauty of the plan, however, relates to its secondary effects. Air pollution would be abated substantially by curtailed use of automobiles, most of which would eventually be small and of low horsepower. In addition, the United States would make more conservative use of its natural resources and achieve a more favorable trade balance with other nations. In short, the Malthusian plunge upon which the United States appears to be bent through its own extravagance would to a great extent be arrested.

Cal, I'm sorry to inflict you with such a long tirade upon a subject beyond your control, but your Working Paper has given me the forum in which to propound a not-so-radical idea, if my forecast of the future is accurate. Naturally, at this stage there are many imperfections and paradoxes in the plan, but I keep returning to the French experience for reference and reassurance. I do believe that the problem of air pollution, while complex in terms of its social parameters, possesses an elegantly simple physical answer: if motor vehicles cause it, the elimination of the cause will cure it. Eighty-cent gasoline is a significant step in that direction.

Very truly yours,

ARTHUR O. SPAULDING,
*City Administrative Officer,
Petroleum Administration.*

Senator METCALF. Our last witness this morning is Mr. William T. Griswold, vice president, Capital Research Corp. You have a prepared statement, Mr. Griswold, and we are delighted to have you here. We have been looking forward to your testimony because you are the last witness this morning. Nevertheless, until lights flash and bells ring and I have to leave, you are on your own.

**STATEMENT OF WILLIAM T. GRISWOLD, VICE PRESIDENT,
CAPITAL RESEARCH CORP.**

Mr. GRISWOLD. Perhaps it is a privilege to be last. I appreciate the opportunity to appear at this joint hearing as a private citizen to express my personal viewpoint on aspects of the future development of U.S. Outer Continental Shelf. My written statement has been provided separately for the record.

Senator METCALF. Yes. It will be incorporated in the record immediately following your oral statement.

Mr. GRISWOLD. I would like to summarize that statement confining my remarks to two general topics and to their impact on the investment community which, hopefully, is expected to finance a major share of U.S. petroleum exploration and development. The two topics are methods of separating Outer Continental Shelf exploration activities from decisions to develop and produce, and an alternate leasing system.

The future of oil exploration in the United States lies in Outer Continental Shelf and the remote regions of Alaska. Ownerships of unexplored Outer Continental Shelf land lies particularly in the hands of the U.S. Government and, therefore, policy decisions by your committee will decide the future course of the domestic oil industry. Oil and gas leasing practices in my opinion have become obsolete and no longer adequately serve our best interests. In my opinion, modification, not replacement, is in order.

It should be the responsibility of the Federal Government to evaluate the lands it offers for lease by obtaining seismic and in some cases stratographic drilling data prior to cash bonus bidding. This could be

accomplished within the framework of the survey program contained in section 202 of S. 521.

Preliminary stages of evaluation only should be conducted by the Federal Government, without discovery objectives. No new agency is required which can be carried out by the highly competent staff of the U.S. Geological Survey.

Senator METCALF. Do you agree the Survey has the ability or capacity to evaluate these areas?

Mr. GRISWOLD. I do agree that they have the ability and capacity, if they are properly restricted as to what their objectives should be. In my opinion they should not be second-guessing lease bidders by setting what they consider the minimum bid acceptable. They should be merely serving to provide initial information available to all bidders to encourage both big and small to get in on the practice of bidding. It should be allowed that corporations or individuals be permitted to gain whatever additional seismic work they want to pay for on their own.

But it does, I think, help from the Government standpoint to get some initial information of whether they have a major basin, what the sedimentary thickness might be what the geologic ages are, et cetera.

I don't believe this is out of character for what the Government should be doing. I do think it is not good for them to use this data to set minimum acceptable bids. I think they ought to accept all bids made.

Senator METCALF. What if we only have one bid?

Mr. GRISWOLD. I think that should also be accepted. I don't care if it is \$1. If that is what people are willing to risk—

Senator METCALF. Suppose the Geological Survey suggests that this is an area that is very favorable and \$1 is not an acceptable bid, and we only have the one bid?

Mr. GRISWOLD. It shows in my mind their opinion varies with the opinions of a great deal of highly competent people. As we have had testimony here before geology and exploration is not that exact a science. And therefore we sort of have to bow to the judgment in this case of the majority and assume they probably know more than the USGS.

Senator METCALF. You are just assuming that in a highly competitive market if there is only one bid, it is not a very good risk; is that right?

Mr. GRISWOLD. That is right. What I do suggest here—

Senator METCALF. I interrupted you. If you want to go ahead?

Mr. GRISWOLD. No. I think this is an important topic. To me, what I have indicated is also necessary in modification of the leasing system, is that we do somewhat like what has been done in England only to the extent that we set minimum requirements as far as a drilling program for a particular lease block. So if somebody undertakes to bid on it, they know they have to drill a minimum of one hole, or two holes, or whatever it is. They know that before they bid. Therefore, maybe they decide it is not too good a block, but if they are willing to bid at all, they are committing themselves to evaluate Federal land which is a valuable contribution toward the Government activity.

Senator METCALF. Well, we are a little different than England. If somebody would drill those three or four lease blocks and find oil,

they would get an OBE or knighthood or something. We can't reward people that way. So there is another incentive offer there that we don't have here.

Mr. GRISWOLD. Well, that is true. But I think you would agree if they are willing to undertake, at their own wishes, exploration on what seems to be an undesirable tract, if nothing else it adds a considerable measure of geological information which is valuable.

Senator METCALF. Maybe we should adopt some of that. I think the committee will look at this. This is the second time today this English system has been brought up and recommended to us for inspection.

Mr. GRISWOLD. I might say this is not really the English system, because it was invented in the United States by private landowners a long time ago. When you took a lease from any private landowners, one of whom I worked with, you were required—they gave you certain requirements.

Senator METCALF. I tried to distinguish between the interests of the United States and any individual landowner, because we have a dual sort of interest here. We have an interest not only in getting as much revenue for the people of America from the land that they own, we have a concern for the actual development of Federal energy resources. Sometimes we have to get lesser revenue and encourage development. If I owned 160 acres of land and oil on it, I would want to get as much as I could out of it. I don't have any public interest involved. When you have half the energy resources of America, we have a different interest. I tried to keep at least my concern in this hearing on both of those problems. Sometimes getting as much money as possible is not the best way to carry out the development of all of our public lands.

Mr. GRISWOLD. Yes. I think, Senator, our common interests in this case is getting the land tested, drilled. And to me turning down a bid on a particular block so that nobody gets it is not very productive from that standpoint.

Senator METCALF. So there is just one bid of \$1, and if somebody is going to drill it, that is a productive sort of an enterprise and helpful to the development of our whole energy resources?

Mr. GRISWOLD. Yes, sir.

Senator METCALF. Thank you. I think that is a contribution.

Mr. GRISWOLD. It is not practical under any circumstances to consider in my opinion complete separation of exploration and development, such as is contemplated in S. 426. Clear-cut points do not exist between exploration and development. Exploration risk taking is not in my opinion a reasonable activity of government and would certainly lead to drying up of private equity capital for the oil industry.

In short, the public does like to have a gamble left. I think that is part of their main interest in the oil industry.

Many numbers have been developed for capital requirements of the energy industry. However, it may be worth calling to the committee's attention that to add a daily barrel of production capacity in the Arab Gulf costs \$400 to \$500. In the deeper OCS waters and remote northern areas of the United States, costs are estimated to run \$4,000 to \$5,000 per daily barrel of production. To replace one million barrels per day of Arabian Gulf imports will require some \$5 billion

of capital expenditures. Without allowing for lease bonuses the oil companies are not going to raise this type of money from the investment community without a rate of return commensurate with risk and a leasing policy that sets out the terms for development in rather clear fashion. High risk ventures require a heavy weighting toward equity capital. The present environment has not been conducive to new oil equity issues. Over the 10-year period 1963 to 1973, the major oil companies in the composite index, we have seen their average debt-to-equity ratios increase from 36.8 to 65.9. A continuation of this trend would destroy their ability to raise outside capital and force complete reliance on internally generated cash flow.

The competitive cash bidding system for Federal leases has been criticized for taking exploration capital that should have gone into geophysical and drilling expenditures. In my opinion, however, the cash bonus bidding is the fairest and most progressive system for developing Government petroleum resources. It should be considered as a form of Federal tax, whose rate is set by the taxpayer at what the traffic will bear. Other Federal tax and price control policies, therefore, have their impact on bidding, because most oil companies feed quite similar cost data into their computer. The exploration risk factor is the major barrier.

I would agree with the objective and reasoning for the elimination of royalty bidding as proposed in Senate 521. However, net profit bidding should not, and I emphasize should not, be substituted. High net profit bidding discourages efficient production, particularly by integrated operators who might wish to keep a maximum share of production when the Government has a right to take payment in kind. In addition to the changes—

Senator METCALF. We should always have that, don't you think?

Mr. GRISWOLD. Well, what I am saying—

Senator METCALF. I would hope that we would continue this proposal to take payments in kind.

Mr. GRISWOLD. I would agree if it is first a royalty, but I think the formula which allows you to compute your net profits and take that in kind becomes very dangerous.

Senator METCALF. But if we have royalty payments, we should be able to take so many barrels of oil.

Mr. GRISWOLD. But in 521, as I read it, you would be able to take the value of your net profits in kind.

Senator METCALF. I now understand what you were telling us.

Mr. GRISWOLD. We heard what happened at Long Beach. They bid 100 percent. This tells you what was going on. They did it because they wanted to maintain 100 percent of that control of that oil. If there are any net profits, you lose control of that oil. So this creates a conflict between the Federal Government and those holding the leases.

Senator METCALF. We have a real problem today in the differentiation in the price between old oil and new oil. Senator Johnston has a bill providing that state oil shall be regarded as new oil. If we take payments in kind for new oil, then the State has a greatly increased revenue as against a royalty in money from old oil.

Mr. GRISWOLD. I would hope this anomaly would disappear in the not too distant future.

In addition to the changes suggested above, modification of the leasing system should not only include revisions in the nomination procedure and the gathering and release of preliminary exploration data by the U.S. Geological Survey, but also the following:

1. The limitation on total capitalization on joint bidding gripes would prevent combination of major oil companies and increase competition. I think this is a far fairer way of doing it than specifying certain oil companies as major and then eliminating them that way.

2. After granting a lease—

Senator METCALF. What if we had a limitation on total capitalization, and Exxon, for instance, is one of the largest corporations in the world. Would it be shut out from bidding?

Mr. GRISWOLD. No, no. This only means that you cannot combine—

Senator METCALF. If we are putting the limits up to the capitalization of Exxon, it would be beyond the capacity of even the combine to bid.

Mr. GRISWOLD. No, this applies to joint bidding only.

Senator METCALF. Joint bidding.

Mr. GRISWOLD. They can bid individually no matter what their size. But they cannot combine a Texaco and an Exxon, let's say, or you might say you could take some of the smaller oil companies and if five of them got together they would be eliminated because their total capitalization would be too big. So it would permit very small people to accumulate enough capital to bid, but would—

Senator METCALF. You would have to have a pretty big combination to equal Exxon.

Mr. GRISWOLD. You can set the level at any place you would desire to set it. It could eliminate a Union Oil if you so desired.

Senator METCALF. Sure.

Mr. GRISWOLD. After granting of leases, trades and sales should be permitted. Lease blocks put up for bid should have specific work requirements, which we discussed.

Senator METCALF. Drilling requirements?

Mr. GRISWOLD. Yes. After a reasonable time period leases should be held by production only. The time period should vary by area and problems of development, as specified in section 203 of S. 521. The time required for development in the gulf, say, off Louisiana should be much less than Alaskan offshore.

The full support of the Federal Government should be behind preventing any unnecessary delay in development.

That concludes the summary, Senator, as I would like to present it.

Senator METCALF. The entire statement will be incorporated in the record immediately following this.

[The prepared statement of Mr. Griswold follows:]

PREPARED STATEMENT OF WILLIAM A. GRISWOLD, VICE PRESIDENT, CAPITAL RESEARCH CORP.

I. INTRODUCTION

My name is William T. Griswold. My present occupation is Vice President and Director of Capital Research Company, one of the largest investment advisory firms in the United States. My primary duties are in the analysis and decision process for capital investment in the energy industries. In the past, as a licensed graduate engineer, I spent twenty years in the mineral industry,

principally in the management of exploration departments for medium sized diversified resources companies.

I appreciate the opportunity to appear here before these Committees as a private citizen to express my own personal viewpoints and would like to center my comments around two of the topics to be covered and to emphasize their impact on the investment community.

A. Methods of separating OCS oil and gas exploration activities from decisions to develop and produce the oil and gas.

B. Alternative leasing systems or other methods of allowing private industries to develop OCS oil and gas.

II. COMMENTS ON SEPARATING OCS EXPLORATION FROM DECISIONS TO PRODUCE

As the major landowner of undeveloped OCS petroleum resources, it is essential that the Federal Government take the responsibility for preliminary evaluation of these lands and not permit them to be leased until leasing guarantees full right of development under established rules. Prior to leasing, the decision to permit development must have been made and backed by the full authority of the United States government, in order to prevent large amounts of scarce private capital from being tied up in non-productive projects, such as occurred in Alaska and California.

Seismic data and in some cases stratigraphic test drilling should be conducted by the government to provide the basis for a decision that economic potential is adequate to justify the environmental trade-offs necessary for development. These trade-offs are part of what this nation must accept if society is to exist at all, much less solve the problems of poverty.

We are exceptionally fortunate in this country to have the United States Geological Survey, a highly competent and professional organization that already has the responsibility for technical control of all offshore drilling activities on federal lands. It would be a great mistake to form any new federal organization to take charge of off-shore exploration activities that can be conducted by an existing agency which has already demonstrated a high degree of integrity and competence. (As an aside to remove any suspicion of prejudice, I would like to add that my only past government employment has been with the Bureau of Mines, and not with the USGS.) Any mandate from Congress for a federal agency to undertake preliminary evaluation of OCS lands should specifically prohibit production; although discovery should not be an objective, good fortune may lead to such results and only serve to reward the government in the lease bidding process. The objective of evaluation should be kept within the bounds of a preliminary category as any efforts to separate a completed exploration stage from development is impractical and would tie up vast amounts of government funds while discouraging private sources of risk capital.

III. POTENTIAL IMPACT ON THE INVESTMENT COMMUNITY OF GOVERNMENT DIRECT PARTICIPATION IN PETROLEUM PRODUCTION

To spell out my prejudices it is necessary to say that, in my opinion, the history of government-operated enterprises does not lead one to believe they are the best way to achieve efficient development of low cost energy, which should be a primary national objective. I would emphasize the reference to "low cost" not "low price." Price can be a social and economic problem quite apart from cost. If the competitive free enterprise system is used to its fullest then good judgment, efficiency, and competence are ultimately rewarded. Investors who are able to appraise and make valid judgments on the companies that meet those qualifications will also be rewarded and encouraged to finance these enterprises by a very democratic process of selection. Some of the present government measures concerning petroleum allocations, and particularly the entitlement system, tend to transfer earnings from the efficient to the inefficient and eventually distort private capital investment decisions. The diverted cash flow also places more capital in the hands of the more incompetent decision makers. If we can accept the concept that the future for new oil discoveries lies overwhelmingly in the OCS lands largely controlled by the federal government, then it follows that the decisions being made by these Committees will be critical to the future energy supplies of the United States.

I can state categorically that, in my opinion, direct federal involvement beyond an initial information gathering phase of exploration will create a deterioration

in the environment for raising the very large amounts of capital necessary to assure success in developing future petroleum supplies. At this point, it is valuable to provide a brief comment on the capital requirements related to a policy of replacing one million barrels per day of imported Arabian Gulf oil with new domestic production from the deeper or more remote basins of the OCS. Capital required to discover, develop and deliver to tanker loading facilities for Arabian Gulf oil is estimated at about \$400-\$500 per daily barrel of capacity. Discovery development and shore delivery facilities for our deeper off-shore and remote Alaskan regions are estimated to require \$4,000-\$5,000 per daily barrel, and these costs are escalating rapidly. This is a ten-fold increase and would indicate that an investment of at least five billion dollars would be required to meet the one million barrel per day objective. This capital is not going to be available under policies that are overly restrictive on conditions or rate of return on these high risk undertakings.

Oil exploration and development is a risk taking activity and should, therefore, require a substantial portion of equity capital. I submit to you a chart (Appendix A) on what has happened over a ten-year period in the critical debt to equity ratio of the major oil companies. A continuation of this trend would spell disaster and a collapse of exploration activity. In the sharp rise experienced in the stock market during the first three and one-half months of 1975, shares in the oil companies have not participated. There is one simple reason, which is government intervention and threats of more government intervention in the petroleum industry, both domestic and foreign. If measures are not taken to encourage competitive development of oil and gas resources on federal lands the capital will not be available for development, and the federal government is ill-equipped to undertake the challenge on its own.

IV. ALTERNATIVE LEASING OR OTHER METHODS OF ALLOWING PRIVATE INDUSTRY TO DEVELOP OCS OIL AND GAS

In spite of the charges that the present lease bidding system is counterproductive because it absorbs capital that should be spent on geophysical and drilling activities, I would argue that with some modification it offers the best alternative. The bidding system is the fairest method of taxation and it should be considered a form of tax whose rate is set to the maximum the traffic will bear by the taxpayer himself. It is eminently more fair than a surtax, windfall tax or any other form of tax on production at either the federal or state level. One should accept that the preponderance of future exploration for oil and gas will be conducted on government lands: federal, state, or in some cases Indian or Native lands. If the self-taxing bidding system is employed the bids will respond to other tax measures. Increased federal taxes, such as "windfall," will lower the bids including those on state or Native lands, while lower taxation would result in higher bids. Therefore, indirectly, the federal government taxes on oil production are actually deducted in many cases from state, Indian or Native income rather than from the oil companies'. Lease bidders all tend to put the same cost calculations into their computers. It is exploration risk that is the principal variable.

As land owner of vast public lands, the federal government has an inherent right, if not duty, to be informed on the lands it is leasing. Therefore, I would recommend that the system of nominations be replaced by a formalized cooperative efforts between industry and agencies of the federal government for the selection of OCS lands over which government geophysical and perhaps, in virgin basins, stratigraphic drilling information is to be obtained. This information to be made available to industry prior to selecting lands for bidding. The available information would allow for more equality between large corporations and the smaller independents. Industry should, however, be allowed to acquire any supplemental geophysical information they wished to obtain on their own.

There has been a great deal of discussion on how to provide special incentives for the so-called independent. There seems more logic in maintaining that all corporations or individuals, major or independent, should be treated alike. The question can be asked, "who is the independent?" The Federal Energy Administration seems to be assisting multi-billion-dollar corporations, some of whom are foreign controlled, under the classification of "independent." There are efforts to retain the depletion allowance for producers of up to 3,000 barrels per day, many of whom are wealthy individuals, where as far as the general public is concerned, there is very little chance for them to participate in a 3,000-barrel-per-day level of production. The small investor's opportunity lies in marketable

share of companies with much higher levels of production. Even the large shareholders of major oil companies are, in most cases, institutions representing pension funds which, I am sure, there is no Congressional intent to penalize.

In spite of the desirability of maintaining the lease bidding system, some modifications beyond a change in the nominations procedure would seem desirable. Assuming that capital availability for competitive bidding does have a decisive advantage at some very high level, much the same as it does in a poker game, it would seem justified to prohibit joint bidding if the combined capitalization of the participants exceeded a specified limit. This limit could be set in such a way that it would force major oil companies out of joint bidding and increase the competitive environment of leasing. After leases have been awarded, however, there should be no prohibition on trading or selling partial interests in order to diversify risk.

Each federal parcel put up for bid should also be subject to specified work requirements, and after a reasonable period of time should only be held by production.

V. SUMMARY

The future for oil exploration in the United States lies in the outer continental shelf and in the remote regions of Alaska. Ownership of unexplored OCS lands lies primarily in the hands of the U.S. government, and, therefore, policy decisions by your committees will decide the future course of the domestic oil industry.

Oil and gas leasing practices have become obsolete and no longer adequately serve our best interest. In my opinion, modification, not replacement, is in order. It should be the responsibility of the federal government to evaluate the lands it offers for lease by obtaining seismic and, in some cases, stratigraphic drilling data. Preliminary stages of evaluation only should be conducted by the federal government without discovery objectives. No new agency is required for these operations which can be carried out by the highly competent staff of the U.S. Geological Survey. It is not practical under any circumstance to consider complete separation of exploration and development. Clear cut-off points do not exist. Exploration risk-taking is not, in my opinion, a reasonably activity of government and would certainly lead to drying up of private equity capital for the oil industry.

Many numbers have been developed for capital requirements of the energy industry. However, it may be worth calling to the Committee's attention that to add a daily barrel of production capacity in the Arabian Gulf costs about \$400-\$500. In the deeper waters and in remote northern areas of the United States, costs are estimated to run \$4,000-\$5,000 per daily barrel of production. To replace one million barrels per day of Arabian Gulf imports will require some five billion dollars of capital expenditures, without allowing for lease bonuses. The oil companies are not going to raise this kind of money from the investment community without a rate of return commensurate with risk and a leasing policy that sets out the terms for development in rather clear fashion.

High risk exploration ventures require a heavy weighting toward equity capital and the present environment has not been conducive to new oil equity issues. Over the ten year period, 1963-1973, the major oil companies in the composite index have seen their average debt-to-equity ratio increase from 36.8 to 65.9. A continuation of this trend would destroy their ability to raise outside capital and force complete reliance on internally generated cash flow.

The competitive cash bonus bidding system for federal leases has been criticized for taking exploration capital that should have gone into geophysical and drilling expenditures. In my opinion, however, cash bonus bidding is the fairest and most progressive system for developing government petroleum resources. It should be considered as a form of federal tax whose rate is set by the taxpayer at what the traffic will bear. Other federal tax and price control policies, therefore, have their impact on bidding, because most oil companies feed quite similar cost data into their computer. The exploration risk factor is the major variable.

I would agree with the objective and reasoning for the elimination of royalty bidding as proposed in S. 521, however, net profit bidding should *not* be substituted. High net profit bidding discourages efficient production, particularly by integrated operators who might wish to keep a maximum share of production when the government has a right to take payment in kind.

In addition to the changes suggested above, modification of the leasing system should not only include revisions in the nomination procedure and the gathering and release of preliminary exploration data by the U.S. Geological Survey, but also the following:

- (1) A limitation on total capitalization of joint bidding groups would effectively prevent combines of major oil companies and increase competition.
- (2) After granting of leases, trades and sales should be permitted.
- (3) Lease blocks put up for bid should have specific work requirements.
- (4) After a reasonable time period, leases should be held by production only. The time period should vary by area and problems of development as specified in Sec. 203 of S. 521.
- (5) The full support of the federal government should be behind preventing any unnecessary delay in development.

OIL COMPANY COMPOSITE RATIOS¹

| | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Debt/Equity (percent) ^{2,3} | 36.80 | 35.04 | 41.06 | 52.11 | 51.56 | 55.72 | 56.17 | 59.12 | 59.49 | 63.91 | 65.87 |
| Return on assets (percent) ⁴ | 8.50 | 8.42 | 8.28 | 8.14 | 8.40 | 7.95 | 7.30 | 6.63 | 6.34 | 5.59 | 7.36 |

¹ Source-Compustat, capital research statistical department.

² Includes both long- and short-term debt.

³ Simple averages not weighted.

⁴ S. & P. composite oil index with Amerada Hess not included.

Note: Companies included: General American Oil, Louisiana Land & Exploration, Superior Oil, Atlantic Richfield, Cities Service, Continental Oil, Getty Oil, Phillips Petroleum, Shell Oil, Standard Oil of Indiana, Sun Oil, Union Oil, Exxon, Gulf Oil, Mobil Oil, Royal Dutch, Standard Oil of California, Texaco.

SUMMARY STATEMENT OF WILLIAM T. GRISWOLD, VICE PRESIDENT, CAPITAL RESEARCH CORP.

Thank you, Mr. Chairman. I appreciate the opportunity to appear at these joint hearings as a private citizen to express my personal viewpoint on aspects of the future development of the U.S. Outer Continental Shelf. My written statement has been provided separately for the record.

I would now like to summarize that statement, confining my remarks to two general topics and to their impact on the investment community which, hopefully, is expected to finance a major share of U.S. petroleum exploration and development. The two topics are: "Methods of separating OCS exploration activities from decisions to develop and produce" and "Alternate leasing systems."

The future for oil exploration in the U.S. lies in the OCS and in the remote regions of Alaska. Ownership of unexplored OCS lands lies primarily in the hands of the U.S. government, and, therefore, policy decisions by your committees will decide the future course of the domestic oil industry.

Oil and gas leasing practices have become obsolete and no longer adequately serve our best interest. In my opinion, modification, not replacement, is in order. It should be the responsibility of the federal government to evaluate the lands it offers for lease by obtaining seismic and, in some cases, stratigraphic drilling data, prior to cash bonus bidding. This could be accomplished within the framework of the "survey program" contained in Sec. 202 of S. 521.

Preliminary stages of evaluation only should be conducted by the federal government, without discovery objectives. No new agency is required for these operations which can be carried out by the highly competent staff of the U.S. Geological Survey. A government operated enterprise such as that called for in S. 740 is not likely to lead to the most efficient development.

It is not practical under any circumstances to consider complete separation of exploration and development, such as is contemplated in S. 426. Clear cut-off points do not exist. Exploration risk-taking is not, in my opinion, a reasonable activity of government and would certainly lead to drying up of private equity capital for the oil industry.

Many numbers have been developed for capital requirements of the energy industry. However, it may be worth calling to the Committees' attention that to add a daily barrel of production capacity in the Arabian Gulf costs about \$400-\$500. In the deeper OCS waters and in remote northern areas of the U.S., costs are estimated to run \$4,000-\$5,000 per daily barrel of production. To replace one

million barrels per day of Arabian Gulf imports will require some \$5 billion of capital expenditures, without allowing for lease bonuses. The oil companies are not going to raise this kind of money from the investment community without a rate of return commensurate with risk and a leasing policy that sets out the terms for development in rather clear fashion.

High risk exploration ventures require a heavy weighting toward equity capital and the present environment has not been conducive to new oil equity issues. Over the 10 year period, 1963-1973, the major oil companies in the composite index have seen their average debt-to-equity ratio increase from 36.8 to 65.9. A continuation of this trend would destroy their ability to raise outside capital and force complete reliance on internally generated cash flow.

The competitive cash bonus bidding system for federal leases has been criticized for taking exploration capital that should have gone into geophysical and drilling expenditures. In my opinion, however, cash bonus bidding is the fairest and most progressive system for developing government petroleum resources. It should be considered as a form of federal tax whose rate is set by the taxpayer at what the traffic will bear. Other federal tax and price control policies, therefore, have their impact on bidding, because most oil companies feed quite similar cost data into their computer. The exploration risk factor is the major variable.

I would agree with the objective and reasoning for the elimination of royalty bidding as proposed in S. 521; however, net profit bidding should not be substituted. High net profit bidding discourage efficient production, particularly by integrated operators who might wish to keep a maximum share of production when the government has a right to take payment in kind.

In addition to the changes suggested above, modification of the leasing system should not only include revisions in the nomination procedure and the gathering and release of preliminary exploration data by the U.S. Geological Survey, but also the following:

1. A limitation on total capitalization of joint bidding groups would effectively prevent combines of major oil companies and increase competition.
2. After granting of leases, trades and sales should be permitted.
3. Lease blocks put up for bid should have specific work requirements.
4. After a reasonable time period, leases should be held by production only. The time period should vary by area and problems of development as specified in Sec. 203 of S. 521.
5. The full support of the federal government should be behind preventing any unnecessary delay in development.

Senator METCALF. I thank you for permitting me to interrupt you. I think you have directed a statement at one of the most crucial problems, and that is, the problem of financing the development and exploration, and creating the stability so the financial community will go in and participate in this development. I especially appreciate your summary. Thank you for appearing here.

The hearing is recessed until April 8, 1975, in this room, when we will continue the joint committee hearings on the OCS bills.

We stand adjourned.

[Whereupon, at 1:07 p.m., the committees were adjourned, to reconvene on Tuesday, April 8, 1975.]

APPENDIXES

APPENDIX I

Text of Bills Relating to the Outer Continental Shelf

94TH CONGRESS
1ST SESSION

S. 81

IN THE SENATE OF THE UNITED STATES

JANUARY 15, 1975

Mr. MATHIAS (for himself, Mr. BROOKE, Mr. CRANSTON, Mr. KENNEDY, and Mr. HOLLINGS) introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

A BILL

To provide the Governors of coastal States with a delay mechanism so as to protect coastal States from adverse environmental or economic impacts and other damages associated with the development of oil and gas deposits in the Outer Continental Shelf and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 That (a) Section 8 of the Outer Continental Shelf Lands
4 Act of 1953 is amended by adding a new subsection to
5 read as follows:

6 “(k) (1) The Secretary shall give notice of the sale of
7 each lease pursuant to this Act to the Governor of any coastal

1 State, the lands of which State are within 300 statute miles
2 of the land to be leased. At any time prior to such sale the
3 Governor so notified may request the Secretary to postpone
4 such sale for a period of not to exceed three years following
5 the date proposed in such notice if he determines that such
6 sale will result in adverse environmental or economic impact
7 or other damage to the State or the residents thereof. In
8 the event of any such request, the Secretary shall postpone
9 the sale until proceedings under this subsection are completed.

10 “(2) The Secretary shall, not later than thirty days
11 from the receipt of such request:

12 “(A) grant the request for postponement;

13 “(B) provide for a shorter postponement than re-
14 quested provided that such period of time is adequate for
15 study and provisions to ameliorate any adverse economic
16 or environmental effects or other damage and for con-
17 trolling secondary social or economic impact associated
18 with the development of Federal energy resources in,
19 or on, the Outer Continental Shelf adjacent to the sub-
20 merged lands of such State; or

21 “(C) deny the request for postponement if he finds
22 that the State is in fact adequately protected from
23 potential adverse environmental and economic impacts
24 and other potential damages.

25 “(3) The Governor of a State aggrieved by the action

1 of the Secretary shall have ten days to appeal directly to the
2 National Coastal Resources Appeals Board established pur-
3 suant to paragraph (4) of this subsection. Such Board shall
4 hear the appeal within fifteen days of its receipt and shall
5 render a final decision within forty-five days of such hearing.
6 The Board shall overrule the action of the Secretary if it
7 finds the Secretary's action does not adequately protect the
8 State from potential adverse environmental and economic
9 impacts and other damages.

10 “(4) (a) There is hereby established, in the Executive
11 Office of the President, the National Coastal Resources Ap-
12 peals Board (hereinafter called the ‘Board’), which shall be
13 composed of the following, or their designees—the Vice
14 President, who shall be Chairman of the Board, the Secre-
15 tary of the Interior, the Administration of the Environ-
16 mental Protection Agency, and the Chairman of the Council
17 on Environmental Quality.

18 “(b) The Board shall:

19 “(1) transmit a written report to the appropriate
20 committee of Congress as to the basis for any decision
21 rendered; and

22 “(2) conduct such hearings pursuant to section 554
23 of title 5, United States Code.

24 “(3) For the purposes of this section, an aggrieved
25 State is defined as being one which has requested a

1 postponement of a lease sale but has been denied such
2 postponement or provided a shorter period of time than
3 requested in which to ameliorate adverse impacts asso-
4 ciated with development of the Outer Continental Shelf
5 and the Governor has determined that such period of time
6 is not adequate.”

94TH CONGRESS
1ST SESSION

S. 130

IN THE SENATE OF THE UNITED STATES

JANUARY 15, 1975

Mr. STEVENS introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

A BILL

To authorize certain revenues from leases on the Outer Continental Shelf to be made available to coastal and other States.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 That the Congress hereby finds and declares that—

4 (1) all States which contain public lands of the
5 United States within their boundaries receive certain
6 revenues produced from bonuses, royalties, and rentals
7 of such lands in accordance with the Mineral Leasing
8 Act of 1920 (30 U.S.C. 191);

9 (2) such sharing of revenues is based on the equi-
10 table consideration that these States furnish govern-

1 mental services to the industries and people engaged in
2 the exploration and production of minerals from such
3 lands and accordingly such States are entitled to be
4 reimbursed for such services;

5 (3) coastal States perform identical governmental
6 services to the industries and people engaged in the
7 exploration and production of minerals from the portion
8 of the seabed, which adjoins each coastal State but to
9 which such States do not have title, yet these States
10 now receive no share of the revenue produced;

11 (4) coastal States in addition to providing govern-
12 mental services, are subject to other burdens not finan-
13 cially measurable, such as the risk and the actuality of
14 oil spills, movement of population of low coastal areas
15 where hurricane dangers are greatest, and modification
16 of coastal ecology;

17 (5) basic justice requires that coastal States should
18 share revenues from the aforesaid portion of the seabed
19 at least on the same equitable grounds on which States
20 with Federal lands within their boundaries now share
21 such revenues with the Federal Government, and

22 (6) the bonuses, royalties, and rentals of public
23 lands can provide a practical way in which Federal rev-
24 enue sharing with all States can be accomplished.

1 SEC. 2. Section 9 of the Outer Continental Shelf Lands
2 Act (43 U.S.C. 1338) is amended to read as follows:

3 “SEC. 9. DISPOSITION OF REVENUES.—(a) All rentals,
4 royalties, or other sums paid to the Secretary or the Secre-
5 tary of the Navy under or in connection with any lease on
6 the Outer Continental Shelf for the period beginning June 5,
7 1950, and ending with the day preceding the date of the
8 enactment of this subsection shall be deposited in the Treas-
9 ury of the United States and credited to miscellaneous
10 receipts.

11 “(b) All rentals, royalties, or other sums paid to the
12 Secretary or the Secretary of the Navy under or in connec-
13 tion with any lease on the Outer Continental Shelf on and
14 after the date of the enactment of this subsection shall be de-
15 posited in the Treasury of the United States; and of the
16 amount of the revenues so deposited in each fiscal year which
17 are attributable to the portion of the Outer Continental Shelf
18 adjacent to any State—

19 “(1) 25 per centum shall be paid by the Secretary
20 of the Treasury to such adjacent State;

21 “(2) 25 per centum shall be paid by the Secretary,
22 in equal amounts, to each of the several States other
23 than such adjacent State; and

24 “(3) 50 per centum shall be deposited in the Treas-

1 ury of the United States and credited to miscellaneous
2 receipts.

3 “(c) Any moneys paid to the Secretary or the Secretary
4 of the Navy under or in connection with a lease but held in
5 escrow pending the determination of a controversy as to
6 whether the lands on account of which such moneys are
7 paid constitute part of the Outer Continental Shelf shall,
8 to the extent that such lands are ultimately determined to
9 constitute a part of the Outer Continental Shelf, be
10 distributed—

11 “(1) in accordance with subsection (a) if paid
12 before the date of the enactment of this subsection, and

13 “(2) in accordance with subsection (b) if paid on
14 or after the date of the enactment of this subsection.”.

15 SEC. 3. (a) Nothing contained in this Act or in the
16 amendments made by this Act shall be construed to alter,
17 limit, or modify in any manner any right, claim, or interest
18 of any State in any funds received before the date of the
19 enactment of this Act, or of any funds held in escrow
20 pending the determination of any controversy as to whether
21 the submerged lands on account of which such funds were
22 received constitute a part of the Outer Continental Shelf.

23 (b) Nothing contained in this Act or in the amend-
24 ments made by this Act shall be construed to alter, limit, or
25 modify any claim of any State to any right, title, or interest
26 in, or jurisdiction over, any submerged lands.

94TH CONGRESS
1ST SESSION

S. 426

IN THE SENATE OF THE UNITED STATES

JANUARY 27, 1975

Mr. HOLLINGS (for himself, Mr. BIDEN, Mr. BROOKE, Mr. CASE, Mr. CHILES, Mr. CRANSTON, Mr. HUMPHREY, Mr. KENNEDY, Mr. MCINTYRE, Mr. MAGNUSON, Mr. MATHIAS, Mr. PELL, Mr. RIBICOFF, Mr. TUNNEY, and Mr. WILLIAMS) introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

A BILL

To establish a policy for the management of oil and natural gas in the Outer Continental Shelf; to protect the marine and coastal environment; to amend the Outer Continental Shelf Lands Act; and for other purposes.

- 1 *Be it enacted by the Senate and House of Representa-*
- 2 *tives of the United States of America in Congress assembled,*
- 3 That this Act may be cited as the "Outer Continental Shelf
- 4 Lands Act Amendments of 1975".

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Sec. 1. Short title and table of contents.

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TITLE III—MISCELLANEOUS PROVISIONS

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1 TITLE I—PURPOSES, DEFINITIONS, AND NA-
2 TIONAL POLICY FOR MANAGING THE RE-
3 SOURCES OF THE OUTER CONTINENTAL
4 SHELF

5 PURPOSES

6 SEC. 101. The purposes of this Act are to—

7 (1) establish policies and procedures for manag-
8 ing the oil and natural gas resources of the Outer Conti-
9 nental Shelf in order to achieve national economic goals
10 and assure national security, reduce dependence on for-
11 eign sources, and maintain a favorable balance of pay-
12 ments in world trade;

13 (2) preserve, protect, and develop oil and natural
14 gas resources in the Outer Continental Shelf consistent
15 with the need to balance orderly resource development
16 with protection of the marine and coastal environ-
17 ment, in a manner consistent with the Mining and
18 Mineral Policy Act of 170 and designed to insure the
19 public a fair and equitable return on the public invest-

5

1 lands the use of which is by law subject solely to the discre-
2 tion of or which is held in trust by the Federal Government,
3 its officers, or agents.

4 (2) "Coastal State" means a State of the United States
5 in, or bordering on, the Atlantic, Pacific, or Arctic Ocean, the
6 Gulf of Mexico, or Long Island Sound. For the purpose of
7 this Act, the term also includes Puerto Rico, the Virgin
8 Islands, Guam, and American Samoa.

9 (3) "Adjacent coastal State" means a coastal State of
10 the United States which (A) would be directly connected by
11 pipeline to drilling a platform, subsea production unit, trans-
12 fer facility, or other similar facilities; (B) would receive crude
13 oil for refining or transshipment which was extracted from
14 the Outer Continental Shelf and transported by means of
15 surface vessels; or (C) is designated by the Administrator
16 of the National Oceanic and Atmospheric Administration pur-
17 suant to subsection 21 (f) of this Act as a State which there
18 is a substantial probability of significant impact on the coastal
19 zone, marine environment, or coastal environment which
20 would result from the development and production of oil and
21 gas anywhere in the Outer Continental Shelf.

22 (4) "Marine environment" means the physical, atmos-
23 pheric, and biological components, conditions, and factors
24 which in combination and interactively determine the pro-
25 ductivity, state, condition, and quality of the marine eco-

1 system including the waters of the high seas, contiguous zone,
2 transitional and intertidal areas, salt marshes, and wetlands
3 within the coastal zone and in the Outer Continental Shelf
4 of the United States.

5 (5) "Coastal environment" means the physical, atmos-
6 pheric, biological, social, and economic components, condi-
7 tions, and factors which in combination and interactively
8 determine the productivity, state, and quality of the human
9 environment and the terrestrial ecosystem from the shore-
10 line inward to the boundaries of the coastal zone as identi-
11 fied by the States pursuant to the regulations promulgated
12 under the authority of the Coastal Zone Management Act
13 of 1972 (86 Stat. 1280; 16 U.S.C. 1454 (b) (1)).

14 (6) "Governor" means the Governor of a State or the
15 person designated by State law to exercise the powers
16 granted to the Governor pursuant to this Act.

17 TITLE II—AMENDMENTS TO THE OUTER CONTI-
18 NENTAL SHELF LANDS ACT

19

POLICY

20 SEC. 201. Section 3 of the Outer Continental Shelf
21 Lands Act (67 Stat. 462, 43; U.S.C. 1331 et seq.) is
22 amended by adding the following new subsections (c) and
23 (d) :

24 "(c) It is hereby declared that the Outer Continental
25 Shelf is a vital national resource held by the Federal Gov-

1 ernment in trust for all the people, which should be made
2 available for orderly development subject to environmental
3 safeguards, consistent with and when necessary to meet na-
4 tional needs as determined pursuant to section 18 of this
5 Act.

6 “(d) It is hereby recognized that development of the
7 oil and gas resources of the Outer Continental Shelf will have
8 significant impacts on the coastal zones of the coastal States
9 and adjacent coastal States and that in recognition of the
10 national interest in the effective management of the coastal
11 zone—

12 “(1) such States may require assistance in protect-
13 ing their coastal zones insofar as possible from the ad-
14 verse effects of such impacts; and

15 “(2) such States are entitled to participate in the
16 decisions made by the Federal Government to explore,
17 develop, and produce oil and gas in the Outer Con-
18 tinental Shelf to the extent consistent with the national
19 interest.”.

20 REVISION OF BIDDING AND LEASE ADMINISTRATION

21 SEC. 202. (a) Subsection (a) of section 8 of the Outer
22 Continental Shelf Lands Act (67 Stat. 462; 43 U.S.C. 1331
23 et seq.) is amended by deleting the last sentence of the sub-
24 section and inserting: “The bidding shall be (1) by sealed
25 bids, and (2) at the discretion of the Secretary, on the basis

1 of (A) cash bonus bid with a royalty fixed by the Secretary
2 at not less than $16\frac{2}{3}$ per centum in amount or value of the
3 production saved, removed, or sold; (B) variable royalty
4 bid based on a per centum of the production saved, removed,
5 or sold with a cash bonus as determined by the Secretary;
6 (C) cash bonus bid with diminishing or sliding royalty
7 based on such formulas as the Secretary shall determine as
8 equitable to encourage continued production from the lease
9 as resources diminish, but not less than $16\frac{2}{3}$ per centum in
10 amount or value of the production saved, removed, or sold
11 at the beginning of the lease period; (D) cash bonus bid
12 with a fixed share of the net profits derived from operation
13 of the tract of no less than 30 per centum reserved to the
14 United States; (E) fixed cash bonus with the net profit
15 share reserved to the United States as the bid variable; (F)
16 cash bonus with a royalty fixed by the Secretary at not less
17 than $16\frac{2}{3}$ per centum in amount or value of the production
18 saved, removed, or sold and a per centum share of net
19 profits derived from the production of oil and gas produced
20 from the lease; or (G) competitive performance based on a
21 work program submitted by bidders. The United States net
22 profit share shall be calculated on the basis of the value of the
23 production saved, removed, or sold, less those capital and
24 operating costs directly assignable to the development and
25 operation (but not acquisition) of each individual oil and gas

1 lease issued under this Act to the lessee under a net profit
2 sharing arrangement. No capital or operating charges for
3 materials or labor services not actually used on an area
4 leased for oil or gas under this Act under a net profit sharing
5 arrangement; allocation of income taxes; or expenditure for
6 materials or labor services used prior to lease acquisition shall
7 be permitted as a deduction in the calculation of net income.
8 The Secretary shall by regulation establish accounting pro-
9 cedures and standards to govern the calculation of profits.
10 In the event of any dispute between the United States and a
11 lessee concerning the calculation of the net profits, the bur-
12 den of proof shall be on the lessee. That part of the net profit
13 share due the United States which is attributable to oil pro-
14 duction may be taken in kind in the form of oil and disposed
15 of as provided in subsection (k) of this section. That part
16 of the net share due in kind shall be determined by dividing
17 the net profit due the United States attributable to the prod-
18 uct or products taken in kind by the fair market value at the
19 wellhead of the oil and/or gas (as the case may be) saved,
20 removed, or sold. In determining the attribution of profits
21 as between oil and gas, costs shall be allocated proportion-
22 ately to the value of their respective shares of production.”.

23 (b) Subsection (b) of section 8 of the Outer Conti-
24 nental Shelf Lands Act (67 Stat. 462; 43 U.S.C. 1331
25 et seq.) is amended to read as follows:

10

1 “(b) An oil and gas lease issued pursuant to this section
2 shall (1) cover an area as large as necessary to comprise a
3 reasonable, economic production unit as determined by the
4 Secretary, (2) be for a period of five years and as long there-
5 after as oil or gas may be produced from the area in paying
6 quantities, or drilling or well reworking operations as ap-
7 proved by the Secretary are conducted thereon, (3) require
8 the payment of value as determined by one of the bidding
9 procedures set out in subsection (a) of this section, and (4)
10 contain such rental provisions and such other terms and pro-
11 visions as the Secretary may prescribe at the time of offering
12 the area for lease.”.

13 DISPOSITION OF FEDERAL ROYALTY OIL

14 SEC. 203. Section 8 of the Outer Continental Shelf Lands
15 Act (47 Stat. 462; 43 U.S.C. 1331 et seq.) as amended by
16 this Act is further amended by adding a new subsection (k)
17 to read as follows:

18 “(k) Upon commencement of production of oil from
19 any lease issued after the effective date of this subsection, the
20 Secretary shall offer to the public and sell by competitive
21 bidding for not less than its fair market value, in such
22 amounts and for such terms as he determines, that propor-
23 tion of the oil produced from said lease which is due to the
24 United States as royalty or net profit share oil. The Secre-
25 tary shall limit participation in such sales where he finds

1 such limitation necessary to assure adequate supplies of oil
2 at equitable prices to independent refiners. In the event that
3 the Secretary limits participation in such sales, he shall sell
4 such oil at an equitable price. The lessee shall take any such
5 royalty oil for which no acceptable bids are received and shall
6 pay to the United States a cash royalty equal to its fair
7 market value, but in no event shall such royalty be less than
8 the highest bid.”.

9

ANNUAL REPORT

10 SEC. 204. (a) Section 15 of the Outer Continental Shelf
11 Lands Act (47 Stat. 462; 43 U.S.C. 1331 et seq.) is
12 amended to read as follows:

13 “ANNUAL REPORT BY SECRETARY TO CONGRESS

14 “SEC. 15. (a) Within six months after the end of each
15 fiscal year, the Secretary shall submit to the President of the
16 Senate and the Speaker of the House of Representatives a
17 report on the leasing and production program in the Outer
18 Continental Shelf during such fiscal year, including a de-
19 tailed accounting of all moneys received and expended, and of
20 all exploration, exploratory drilling, leasing, development,
21 and production activities; a summary of management, super-
22 vision, and enforcement activities; and recommendations to
23 the Congress for improvements in management, safety, and
24 amount of production in leasing and operations in the Outer

1 Continental Shelf and for resolution of jurisdictional conflicts
2 or ambiguities.”

3 (b) Section 313 (a) of the Coastal Zone Management
4 Act of 1972 (86 Stat. 1280; 16 U.S.C. 1451 et seq.) is
5 amended by striking the word ‘and’ after the word ‘priority’
6 in subsection (8); renumbering existing subsection (9) as
7 subsection (10); and inserting the following new subsection
8 (9): “an assessment of the onshore social, economic, and en-
9 vironmental impacts in those coastal areas affected by Outer
10 Continental Shelf oil and gas exploration and exploitation;
11 and”.

12 ENSURING ORDERLY DEVELOPMENT OF OIL AND GAS LEASES

13 SEC. 205. Section 5 of the Outer Continental Shelf Lands
14 Act (67 Stat. 462; 43 U.S.C. 1331 et seq.) is amended by
15 adding the following new subsections:

16 “Ensuring Orderly Development of Oil and Gas Leases

17 “(d) (1) After enactment of this section no oil and
18 gas lease may be issued pursuant to this Act unless the lease
19 requires that development be carried out in accordance with
20 a development plan submitted by the lessee and found by
21 the Secretary to be consistent with the leasing and develop-
22 ment plan submitted by the Secretary pursuant to section 20
23 of this Act, and provides that failure to comply with such
24 development plan will terminate the lease.

25 “(2) The development plan will set forth, in the de-

1 gree of detail established by regulations issued by the Secre-
2 tary, specific work to be performed, environmental protec-
3 tion and health and safety standards to be met, and a time
4 schedule for performance.

5 “(3) With respect to permits, licenses, and leases out-
6 standing on the date of enactment of this section, a proposed
7 development plan must be submitted to the Secretary within
8 six months after the date of enactment of this section. Failure
9 to submit a development plan or to comply with an approved
10 development plan shall terminate the permit, license, or lease.

11 “(4) The Secretary may approve revisions of develop-
12 ment plans if he determines that such revision will lead to
13 greater recovery of oil and gas, improve the efficiency of the
14 recovery operation, or is the only means available to avoid
15 substantial economic hardship on the lessee, licensee, or per-
16 mittee to the extent consistent with protection of the marine
17 and coastal environments.

18 “(e) After the date of enactment of this subsection,
19 holders of oil and gas leases issued pursuant to this Act
20 shall not be permitted to flare natural gas from any well
21 unless the Secretary finds that there is no practicable way
22 to obtain production or to conduct testing or workover opera-
23 tions without flaring.”

1 U.S.C. 1331 et seq.) is amended by deleting the following
2 words: "as of the effective date of this Act".

3 NEW SECTIONS OF OUTER CONTINENTAL SHELF LANDS ACT

4 SEC. 209. The Outer Continental Shelf Lands Act (47
5 Stat. 462; 43 U.S.C. 1331 et seq.) is hereby amended by
6 adding the following new sections:

7 "OUTER CONTINENTAL SHELF LEASING PROGRAM

8 "SEC. 18. (a) Congress declares that it is the policy of
9 the United States that Outer Continental Shelf lands deter-
10 mined to be both geologically favorable for the accumulation
11 of oil and gas and capable of supporting oil and gas develop-
12 ment without undue environmental harm or damage should
13 be made available for leasing in a manner consistent with
14 national needs.

15 "(b) The Secretary is authorized and directed to prepare
16 and maintain a leasing program to implement the policy set
17 forth in subsection (a) of this section. The leasing program
18 shall indicate as precisely as possible the size, timing, and
19 location of leasing activity that will best meet national energy
20 needs for the ten-year period following the promulgation of
21 such a leasing program in a manner consistent with subsec-
22 tion (a) of this section and to—

23 "(1) manage the Outer Continental Shelf in a
24 manner which considers all of the economic, social, and

1 environmental values of the renewable and nonrenew-
2 able resources contained therein and the potential impact
3 of oil and gas exploration on other resource values of the
4 Outer Continental Shelf and the marine and coastal
5 environments;

6 “(2) schedule and location of exploration, develop-
7 ment, and production of oil and gas among the oil- and
8 gas-bearing physiographic regions of the Outer Con-
9 tinental Shelf, based on—

10 “(A) existing information concerning their geo-
11 graphical, geological, and ecological characteristics;

12 “(B) their location with respect to, and relative
13 needs of, regional and national energy markets;

14 “(C) their location with respect to other uses
15 of the sea and seabed including fisheries, intracoastal
16 navigation, existing or proposed sea lanes, potential
17 sites of deepwater ports, and other anticipated uses of
18 the resources and space in the Outer Continental
19 Shelf;

20 “(D) interest by potential oil and gas producers
21 in the development of oil and gas resources as indi-
22 cated by exploration, nomination, or consultation;
23 and

24 “(E) laws, goals, and policies of the affected
25 coastal States and adjacent coastal States.

1 “(3) schedule the timing and location of leasing so
2 that areas and regions with the least potential for envir-
3 onmental damage and impact on the coastal zone are
4 leased first, to the maximum extent practicable, con-
5 sistent with the determination of national needs;

6 “(4) schedule the timing and location of leasing so
7 as to allow development of the oil and gas resources to
8 keep pace with the availability of construction materials,
9 tubular steel products, and other equipment and materials
10 required for exploration and development of the resource;
11 and

12 “(5) receive fair market value for the oil and gas
13 resources held in trust for the public.

14 “(c) The program shall include estimates of the appro-
15 priations and staffing required by all Federal agencies and
16 programs necessary to—

17 “(1) conduct the geophysical exploration and ex-
18 ploratory drilling authorized and directed by section 19
19 of this Act;

20 “(2) obtain resource information and any other in-
21 formation needed to prepare the leasing program required
22 by this section;

23 “(3) analyze and interpret the exploratory data and
24 other information required prior to offering tracts for
25 lease;

1 “(3) increasing competition among producers of
2 oil and gas by providing data and information to all po-
3 tential bidders equally and equitably; and

4 “(4) providing the public with information on the
5 extent and value of the public resources being offered for
6 sale.

7 “(b) The Secretary, through the United States Geo-
8 logical Survey, is authorized to conduct seismic, geomag-
9 netic, gravitational, geophysical, geochemical, or strati-
10 graphic drilling, or to contract for or purchase the results of
11 such exploratory activities from commercial sources which
12 may be needed to implement the provisions of this section
13 of this Act. The Secretary is further authorized to conduct
14 or contract for such exploratory drilling as necessary to prove
15 the presence of commercial quantities of oil or gas, extent
16 of the field, and to obtain sufficient information concerning
17 the geology or seabed conditions which may affect the de-
18 velopment of the resources.

19 “(c) Nothing in this section of this Act shall limit
20 any person from conducting exploratory geophysical surveys
21 including seismic, geomagnetic, gravitational, or geophysi-
22 cal surveys to the extent permitted by section 11 of this
23 Act as amended: *Provided, however,* That exploratory drill-
24 ing shall not be permitted by any person prior to award
25 of a lease other than a contractor of the United States Gov-

1 ernment to provide services pursuant to subsection (b) of
2 this section.

3 “(d) The Secretary shall make available to the public
4 all data, information, maps, interpretations, and surveys by
5 appropriate means which are obtained directly by the De-
6 partment of the Interior or under a service contract pursuant
7 to subsection (b) of this section: *Provided, however,* That
8 the Secretary shall maintain the confidentiality of all pro-
9 prietary data or information purchased from commercial
10 sources while not under contract with the United States
11 Government for such period of time as is agreed to by the
12 parties. For the purpose of this subsection, subsection 552 (b)
13 (9) of title 5 of the United States Code shall not apply to
14 geological and geophysical information and data, including
15 maps, concerning wells or other related information ac-
16 quired directly by the Department or under a service con-
17 tract pursuant to subsection (b) of this section.

18 “(e) All Federal departments or agencies are authorized
19 and directed to provide the Secretary with any information
20 or data that may be deemed necessary to assist the Secretary
21 in implementing the exploratory program pursuant to this
22 section of this Act. Proprietary information or data provided
23 to the Secretary under the provisions of this subsection shall
24 remain confidential for such period of time as agreed to by the
25 head of the department or agency from whom the information

1 is requested. In addition, the Secretary is authorized and di-
2 rected to utilize the existing capabilities and resources of
3 other Federal departments and agencies by appropriate
4 agreement.

5 “(f) The Secretary, in cooperation with the Administra-
6 tor of the National Oceanic and Atmospheric Administration,
7 is directed to prepare, publish, and keep current a series of de-
8 tailed bathymetric, geological, and geophysical maps of, and
9 reports concerning, the Outer Continental Shelf oil and gas
10 resources, based on data and information compiled pursuant
11 to this section of this Act. Such maps and reports shall be
12 prepared and revised at intervals of not more than six months,
13 beginning January 1, 1976. Such maps and reports shall be
14 made available on a continuing basis to any person on request.

15 “(g) Within six months after enactment of this section,
16 the Secretary and the Administrator of the National Oceanic
17 and Atmospheric Agency shall jointly develop and transmit
18 to Congress an implementation plan for the oil and gas
19 exploration program authorized by this section of this Act,
20 including procedures for making the data and information
21 available to the public pursuant to subsection (d), and maps
22 and reports pursuant to subsection (f) of this section of this
23 Act. The implementation plan shall include a projected
24 schedule of exploratory activities and identification of the
25 regions and areas which will be explored under the oil and

1 gas exploration program during the first five years follow-
2 ing enactment of this section. In addition, the implementa-
3 tion plan shall include estimates of the appropriations and
4 staffing required to implement the oil and gas exploration
5 program. No action taken to implement this subsection of
6 this Act as it pertains to the development of the implementa-
7 tion plan for the oil and gas exploration program shall be
8 considered a major Federal action for the purposes of sec-
9 tion 102 (2) (C) of the National Environmental Policy Act
10 of 1972 (83 Stat. 852; 42 U.S.C. 4321 et seq.)

11 “(h) (1) The Secretary shall, by regulation, establish
12 procedures for determining areas to be considered for explor-
13 atory drilling and potential leasing. The procedures shall
14 include but not be limited to consultation (A) with the oil
15 and gas industry; and (B) with State and local govern-
16 ments within the coastal States and adjacent coastal States
17 which would be affected by subsequent leasing and develop-
18 ment of the proposed area or region.

19 “(2) The Secretary shall, in determining areas to be
20 selected for exploratory drilling, coordinate the oil and gas
21 exploratory program provided for by this section of this Act
22 with coastal management programs being developed by any
23 coastal State or adjacent coastal States and for approval
24 pursuant to section 305 of the Coastal Zone Management
25 Act of 1972 (86 Stat. 1280; 16 U.S.C. 1451 et seq.) and

1 the coastal zone management programs of any State which
2 has been approved pursuant to section 306 of that Act.

3 “(3) The Secretary shall publish in the Federal Regis-
4 ter a minimum of one hundred twenty days prior to the
5 commencement of exploratory drilling in any area or region
6 detailed information which includes but is not limited to (A)
7 location of proposed drilling activities; and (B) time sched-
8 ule for commencement and completion of drilling.

9 “(4) The selection and determination of areas for ex-
10 ploratory drilling and potential leasing shall be considered a
11 “major Federal action” for the purpose of compliance with
12 section 102(2)(c) of the National Environmental Policy
13 Act of 1969.

14 “(i) The Secretary shall include in the annual report
15 required by section 15 of this Act, information concerning the
16 carrying out of the Secretary’s duties under this section, and
17 shall include as a part of each such report a summary of the
18 current data for the period covered by the report.

19 “(j) There are hereby authorized to be appropriated
20 \$200,000,000 to carry out the purposes of this section of
21 this Act during fiscal years 1976 and 1977, to the Secre-
22 tary and to appropriate Federal agencies having responsi-
23 bilities under this section of this Act.

1 “(1) extent of the resources contained within the
2 tracts proposed for sale;

3 “(2) location of the tracts in reference to other
4 coastal and offshore activities, including other oil and
5 gas developments or potential developments nearby;

6 “(3) estimates of the volume of recoverable re-
7 serves within the tract proposed for sale based on infor-
8 mation derived from the oil and gas exploration program
9 authorized by section 19 of this Act;

10 “(4) current market value of the oil and gas based
11 on estimates of the recoverable volume in the tract
12 proposed for sale under the development plan;

13 “(5) cost of producing the recoverable oil and gas
14 under the proposed development plan;

15 “(6) anticipated location of production units, off-
16 shore support facilities, and rights-of-way and number
17 of pipelines and other infrastructure necessary to pro-
18 duce and transport oil and gas from the proposed lease
19 tract’;

20 “(7) capacity of onshore facilities and infrastruc-
21 ture at the point of entry into a coastal State or adjacent
22 coastal State of the oil or gas produced within each pro-
23 posed tract estimated to the extent possible;

24 “(8) assessment of the need for new onshore facil-

1 ities or infrastructure that may be required to handle the
2 oil or gas produced from the proposed lease tract, or
3 otherwise to support operations within the proposed lease
4 tract;

5 “(9) exceptional, unique, or unusual conditions in
6 the proposed lease tract which may require special treat-
7 ment or precautions to protect the environment or insure
8 the safe development and production from the tract;

9 “(10) expected rate of development and production
10 if the proposed tract is leased;

11 “(11) proposed impact on the economic, social, in-
12 stitutional structure of the affected coastal States and adja-
13 cent coastal States; and

14 “(12) certification of the consistency of the pro-
15 jected development of the proposed lease tract in ac-
16 cordance with the provisions of section 307 of the Coastal
17 Zone Management Act of 1972 (86 Stat. 1280; 16
18 U.S.C. 1451 et seq.), or where inconsistencies exist,
19 these shall be noted in the leasing and development plan.

20 “(c) (1) The Secretary shall submit the proposed leas-
21 ing and development plan to the Governors of the affected
22 coastal States and adjacent coastal States for comment at least
23 sixty days prior to transmittal to Congress pursuant to sub-
24 section (a) of this section. At any time prior to the submis-
25 sion of the leasing and development plan to Congress a Gov-

1 error may request the Secretary to postpone leasing and
2 development of the proposed tracts for a period not to exceed
3 three years following the date proposed for sale in the leasing
4 and development plan if the Governor determines that the
5 proposed lease will result in adverse environmental or eco-
6 nomic impacts or other damage to the State or the residents
7 thereof. In the event of any such request, the Secretary shall
8 postpone the transmittal of the leasing and development plan
9 to Congress until proceedings under this subsection are
10 completed.

11 “(2) The Secretary shall, not later than thirty days
12 from receipt of such request—

13 “(A) grant the request for postponement; or

14 “(B) provide for a shorter postponement than re-
15 quested: *Provided*, That such period of time is adequate
16 for study and provision to ameliorate any adverse eco-
17 nomic or environmental effects or other damage and for
18 controlling secondary social or economic impacts as-
19 sociated with development of Federal energy resources
20 in, or on, the Outer Continental Shelf adjacent to the
21 submerged lands of such State; or

22 “(C) deny the request for postponement if he finds
23 that such postponement would not be consistent with
24 the national policy or the national interest as expressed
25 in section 3 of this Act.

1 “(3) The comments received from the Governors of
2 the affected coastal States and adjacent coastal States shall
3 accompany the proposed leasing and development plan when
4 transmitted to Congress. In the event that postponement was
5 requested by any Governor, all correspondence, informa-
6 tion, and data pertaining to the request for postponement
7 shall be made part of the record and shall accompany the
8 leasing and development plan when transmitted to Congress.

9 “(d) All environmental impact statements relevant to
10 the leasing and development plan for the proposed tract,
11 area, or region which are prepared pursuant to section 102
12 (2) (C) of the National Environmental Policy Act of 1969
13 (83 Stat. 852, 42 U.S.C. 4321 et seq.) shall accompany
14 the development and leasing plan when transmitted to
15 Congress as required by subsection (a) of this section.

16 “(c) There are hereby authorized to be appropriated to
17 the Secretary such sums as are necessary to carry out the
18 purposes of this section during fiscal years 1976 and 1977.

19 “ENVIRONMENTAL IMPACT ASSESSMENT AND MONITORING

20 “SEC. 21. (a) The National Oceanic and Atmospheric
21 Administration shall be considered the “lead agency” for
22 the purpose of complying with the requirements of the Na-
23 tional Environmental Policy Act of 1969 (83 Stat. 853; 42
24 U.S.C. 4321 et seq.) as that Act pertains to the implemen-
25 tation of all sections of this Act.

1 “(b) Prior to formulation of the leasing and develop-
2 ment plan as required by section 20 of this Act, the Ad-
3 ministrator of the National Oceanic and Atmospheric Ad-
4 ministration (hereinafter referred to as ‘Administrator’),
5 in consultation with the Secretary, shall conduct a study of
6 the area or region involved to establish baseline information
7 concerning the status of the marine and coastal environment
8 of the Outer Continental Shelf and the coastal zone which
9 may be affected by oil and gas development. The study shall
10 include, but not be limited to, background concentrations
11 of hydrocarbons in water, sediments, and organisms; back-
12 ground concentrations of trace metals in water, sediments,
13 and organisms; classification and characterization of benthic
14 and planktonic communities; description of the relationship
15 and state of marine organisms and abiotic components in-
16 cluding sediments; and other physical and chemical char-
17 acteristics of the marine environment such as conductivity,
18 temperature, micronutrients, dissolved oxygen, and other fac-
19 tors which determine the productivity and quality of the
20 marine environment.

21 “(c) The environmental impact statements related to
22 the oil and gas exploration program authorized by section
23 19, and the leasing and development plan required by sec-
24 tion 20 of this Act pursuant to section 102 (2) (C) of the
25 National Environmental Policy Act of 1969 (83 Stat. 852;

1 42 U.S.C. 4321 et seq.), shall include, but shall not be
2 limited to--

3 “(1) description of the marine and coastal environ-
4 ments affected as they exist prior to proposed leasing
5 and development;

6 “(2) interrelationships and cumulative environ-
7 mental impacts of development of the proposed lease
8 tract in relation to possible future oil and gas develop-
9 ments or the siting of other energy facilities in the Outer
10 Continental Shelf or in the adjacent coastal zone;

11 “(3) population and growth characteristics of the
12 affected coastal States or adjacent coastal States and
13 identification of any assumptions used to project the
14 impact of proposed development of offshore oil and gas
15 resources on population and growth, including an assess-
16 ment of the effect of any possible change in population
17 patterns or growth upon the resource base including
18 land use, water, and public services;

19 “(4) relationship of the proposed leasing and de-
20 velopment of oil and gas to existing or developing
21 coastal zone management plans of the affected coastal
22 States and adjacent coastal States developed in accord-
23 ance with the Coastal Zone Management Act of 1972
24 (86 Stat. 1280; 16 U.S.C. 1451 et seq.), including the
25 notation of any inconsistencies between the proposed

1 exploration or development and such coastal zone man-
2 agement plans;

3 “(5) probable impact of the proposed exploration
4 or development on the marine and coastal environments,
5 including secondary or indirect impacts as well as pri-
6 mary or direct impacts;

7 “(6) negative effects of the proposed exploration or
8 development as they may affect both the national and
9 international environment;

10 “(7) unavoidable adverse environmental effects
11 including but not limited to air pollution, water pollution,
12 undesirable land use patterns, damage to ecosystems,
13 and threats to health;

14 “(8) extent to which the proposed exploration or
15 development involves trade-offs between short-term en-
16 vironmental gains at the expense of long-term losses,
17 or, as the case may be, the reverse trade-offs; and

18 “(9) any irreversible and irretrievable commitments
19 of resources that would be involved in the proposed
20 exploration or development should it be implemented.

21 “(d) Subsequent to leasing and development of any
22 area, region, or tract under the authority of this Act, the
23 Administrator shall monitor the marine and coastal environ-
24 ment of the areas affected in a manner designed to provide
25 time-series data and trend information which can be com-

1 pared with baseline data and previously collected data for
2 the purpose of identifying significant changes in the quality
3 and productivity of the environment.

4 “(e) The Administrator shall, by regulation, establish
5 procedures to implement baseline studies, undertake environ-
6 mental impact assessments, monitor the affected areas, and
7 compile environmental impact statements authorized by this
8 section of this Act.

9 “(f) The Administrator shall designate which coastal
10 States are to be considered as ‘adjacent coastal States’ for
11 the purposes of this Act within sixty days after receiving
12 notice from the Secretary of an intent to proceed with
13 exploratory drilling pursuant to section 19 of this Act. The
14 Administrator shall designate as an ‘adjacent coastal State’
15 any coastal State in which—

16 “(1) he determines that there is a substantial risk
17 of serious damage, because of such factors as prevailing
18 winds and currents, to its coastal or marine environ-
19 ment as a result of oilspills, blowouts, or release from
20 vessels, pipelines, or other transshipment facilities; or

21 “(2) he determines that new facilities will be re-
22 quired within the State to provide direct support to
23 offshore oil and gas development under the proposed
24 leasing and development plan. Such facilities shall in-
25 clude but not be limited to harbor services and supply

1 bases for vessels operating between the shore and the
2 proposed offshore oil and gas lease tracts; oil production
3 platform construction sites; oil or gas tank storage facilities;
4 terminals for tankers or barges transporting oil or
5 gas from production wells within the proposed lease
6 tracts; natural gas treatment facilities and refineries
7 utilizing crude oil or natural gas extracted from the
8 proposed lease tracts.

9 “(g) The Administrator may determine that a coastal
10 State is an ‘adjacent coastal State’ for the purposes of this
11 Act at any time during the life of the proposed lease if he
12 finds that the criteria under subsection (e) of this section
13 apply.

14 “(h) There is hereby authorized and appropriated to
15 the Administrator such sums as are necessary to carry out
16 the purposes and functions of this section of this Act during
17 fiscal years 1976 and 1977.

18 “SAFETY REGULATIONS FOR OIL AND GAS OPERATIONS

19 “SEC. 22. (a) It is the policy of this section to insure,
20 through proved techniques, maximum precautions, and maximum
21 use of the best available technology by well-trained personnel,
22 the safest possible operations in the Outer Continental
23 Shelf. Safe operations are those which minimize the likelihood
24 of blowouts, loss of well control, fires, spillages, releases,

1 or other occurrences which may cause damage to the environ-
2 ment, or to property, or endanger human life or health.

3 “(b) (1) The Secretary of the Department in which the
4 Coast Guard is operating with the concurrence and advice of
5 the Administrator of the Environmental Protection Agency,
6 the Administrator of the National Oceanic and Atmospheric
7 Administration, and the Secretary shall develop, promulgate,
8 and periodically revise safety regulations for operations in the
9 Outer Continental Shelf, to implement to the extent possible
10 the policy of subsection (a) of this section. Within one year
11 after enactment of this section, the Secretary of the Depart-
12 ment in which the Coast Guard is operating shall complete
13 a review of existing safety regulations, consider the results
14 and recommendations of the study authorized in subsection
15 (c) of this section, and promulgate a complete set of safety
16 regulations (which may incorporate Outer Continental Shelf
17 orders) applicable to operations in the Outer Continental
18 Shelf or any region or area thereof. The Secretary of the De-
19 partment in which the Coast Guard is operating shall re-
20 promulgate any safety regulations in effect on the date of
21 enactment of this section which that Secretary finds should
22 be retained. No safety regulations promulgated pursuant to
23 this subsection shall reduce the degree of safety or protection
24 to the environment afforded by safety regulations previously
25 in effect.

1 “(2) In promulgating regulations under this section, the
 2 Secretary of the Department in which the Coast Guard is
 3 operating shall require on all new drilling and production
 4 operations and, wherever practicable on already existing
 5 operations, the use of the best available technology wherever
 6 failure of equipment would have a substantial effect on pub-
 7 lic health, safety, or the environment.

8 “INSPECTIONS AND ENFORCEMENT OF SAFETY

9 REGULATIONS

10 SEC. 23. (a) (1) The Secretary of the Department in
 11 which the Coast Guard is operating shall enforce the safety
 12 and environmental protection regulations promulgated under
 13 section 22 of this Act. The Coast Guard shall regularly
 14 inspect all operations authorized pursuant to this Act and
 15 strictly enforce safety regulations promulgated pursuant to
 16 this Act and other applicable laws, rules, and regulations
 17 relating to public health, safety, or environmental protection.
 18 All holders of leases under this Act shall allow prompt access
 19 at the site of any operations subject to safety regulations to
 20 any inspector, and provide such documents and records that
 21 are pertinent to public health, safety, or environmental
 22 protection, as the Coast Guard may request.

23 “(2) The Secretary of the Department in which the
 24 Coast Guard is operating shall promulgate regulations within

1 ninety days of the enactment of this section to provide
2 for—

3 “(A) physical observation at least once each year
4 by an inspector of the installation or testing of all safety
5 equipment designed to prevent or ameliorate blowouts,
6 fires, spillages, or other major accidents; and

7 “(B) periodic onsite inspection without advance
8 notice to the lessee to assure compliance with public
9 health, safety, or environmental protection regulations.

10 “(3) The Secretary of the Department in which the
11 Coast Guard is operating shall make an investigation and
12 public report on all major fires and major oil spillage occur-
13 ring as a result of operation pursuant to this Act. For the
14 purpose of this subsection, a major oil spillage is any spill-
15 age in one instance of more than two hundred barrels of oil
16 over a period of thirty days or of fifty barrels over a single
17 period of twenty-four hours: *Provided*, That an investiga-
18 tion and report of a lesser oil spillage may be initiated at the
19 discretion of the Secretary of the Department in which the
20 Coast Guard is operating.

21 “(4) For the purposes of carrying out their responsi-
22 bilities under this section, the Secretary of the Department
23 in which the Coast Guard is operating may by agreement
24 utilize with or without reimbursement the services, person-
25 nel, or facilities of any Federal agency.

1 “(b) The Secretary shall, after consultation with the
2 Secretary of the Department in which the Coast Guard is
3 operating include in his annual report to Congress required
4 by section 15 of this Act the number of violations of safety
5 regulations found, the names of the violators, and the action
6 taken thereon pursuant to section 24 of this Act.

7 “(c) The Secretary of the Department in which the
8 Coast Guard is operating shall submit to the Congress an
9 annual report on the enforcement responsibilities assigned
10 that Department under this Act including, but not limited
11 to—

12 “(1) the number and location of any known oil
13 spillages, estimates of the amount of oil released, cause
14 of the spillage when known, remedial action which may
15 be taken to avoid future spillages of a similar nature,
16 cost of cleaning up the spilled oil, assessment of damage
17 done to the marine and/or coastal environment, and
18 other information which may be useful in reducing the
19 likelihood or future occurrences;

20 “(2) identity of violators, setting out any legal
21 action taken under section 24 of this Act, and such
22 penalties as may result therefrom; and

23 “(3) recommendations for legislation or authority
24 deemed necessary to improve the enforcement of the

1 laws, rules, or regulations pertaining to the administra-
2 tion of this Act.

3 “(d) The Secretary of the Department in which the
4 Coast Guard is operating shall consider any allegation from
5 any person of the existence of a violation of any safety
6 regulations issued under this Act. The Secretary of the
7 Department in which the Coast Guard is operating shall
8 answer such allegations within ninety days after receipt
9 thereof, stating whether or not such alleged violations exist
10 and, if so, what action has been taken.

11 “(e) In any investigation directed by this section the
12 Secretary of the Department in which the Coast Guard
13 is operating or the Secretary shall have power to summon
14 before them or their designees witnesses and to require the
15 production of books, papers, documents, and any other
16 evidence. Attendance of witnesses or the production of books,
17 papers, documents, or any other evidence shall be com-
18 pelled by a similar process as in the United States district
19 court. In addition, they or their designees shall administer
20 all necessary oaths to any witnesses summoned before said
21 investigation.

22 “REMEDIES AND PENALTIES

23 “SEC. 24. (a) At the request of the Secretary of the
24 Department in which the Coast Guard is operating, the
25 Attorney General or any United States attorney of the juris-

1 diction in which a violation occurred shall institute a civil
2 action in the district court of the United States for the district
3 in which the affected operation is located for a restraining
4 order or injunction or other appropriate remedy to enforce
5 any provision of this Act or any rule, regulation, or order
6 issued under the authority of this Act.

7 “(b) If any person shall fail to comply with any provi-
8 sion of this Act, or any regulation or order issued under the
9 authority of this Act, after notice of such failure and expira-
10 tion of any period allowed for corrective action, such person
11 shall be liable for a civil penalty of not more than \$50,000
12 for each and every day of the continuance of such failure. The
13 Secretary may assess, collect, and compromise any such
14 penalty. No penalty shall be assessed until the person charged
15 with a violation shall have been given an opportunity for a
16 hearing on such charge.

17 “(c) Any person who knowingly and willfully violates
18 any provision of this Act, or any rule, regulation, or order
19 issued under the authority of this Act designed to protect
20 public health, safety, or the environment or conserve natural
21 resources or knowingly and willfully makes any false state-
22 ment, representation, or certification in any application, rec-
23 ord, report, plan, or other document filed or required to be
24 maintained under this Act, or who knowingly and willfully
25 falsifies, tampers with, or renders inaccurate a monitoring de-

1 vice or data recorder required to be maintained under this Act
2 or knowingly and willfully reveals any data or information
3 required to be kept confidential by this Act, shall, upon
4 conviction, be punished by a fine of not more than \$100,000,
5 or by imprisonment for not more than one year, or both.
6 Each day that a violation continues shall constitute a separate
7 offense.

8 “(d) Whenever a corporation or other entity violates
9 any provision of this Act, or any rule, regulation, or order
10 issued under the authority of this Act, any officer, or agent
11 of such corporation or entity who knowingly and willfully
12 authorized, ordered, or carried out such violation shall be
13 subject to the same fines or imprisonment as provided for
14 under subsection (c) of this section.

15 “(e) The remedies prescribed in this section shall be
16 concurrent and cumulative and the exercise of one does not
17 preclude the exercise of the others. Further, the remedies
18 prescribed in this section shall be in addition to any other
19 remedies afforded by any other law, rule, or regulation.

20 “CITIZEN SUITS

21 “SEC. 25. (a) Except as provided in subsection (b)
22 of this section, any person having an interest which is or
23 may be adversely affected may commence a civil action on
24 his own behalf—

1 “(1) against any person including—

2 “(A) the United States, and

3 “(B) any other governmental instrumentality
4 or agency to the extent permitted by the eleventh
5 amendment to the Constitution who is alleged to
6 be in violation of the provisions of this Act or the
7 regulations promulgated thereunder, or any permit,
8 license, or lease issued by the Secretary;

9 “(2) against the Secretary where there is alleged
10 a failure of the Secretary to perform any act or duty
11 under this Act which is not discretionary with the
12 Secretary.

13 “(b) No action may be commenced—

14 “(1) under subsection (a) (1) of this section—

15 “(A) prior to sixty days after the plaintiff has
16 given notice in writing under oath of the violation
17 (i) to the Secretary, and (ii) to any alleged violator
18 of the provisions of this Act or any rules or regula-
19 tions promulgated thereunder, or any permit, license,
20 or lease issued thereunder;

21 “(B) if the Secretary has commenced and is
22 diligently prosecuting a civil action in a court of the
23 United States to require compliance with the pro-
24 visions of this Act, or the regulations thereunder, or

1 the lease, but in any such action in a court of the
2 United States any person may intervene as a matter
3 of right; or

4 “(2) under subsection (a) (2) of this section prior
5 to sixty days after the plaintiff has given notice in writ-
6 ing under oath of such action to the Secretary, in such
7 manner as the Secretary shall by regulation prescribe,
8 except that such action may be brought immediately
9 after such notification in the case where the violation
10 complained of, constitutes an imminent threat to the
11 health or safety of the plaintiff or would immediately
12 affect a legal interest of the plaintiff.

13 “(c) In any action under this section, the Secretary, if
14 not a party, may intervene as a matter of right.

15 “(d) The court, in issuing any final order in any action,
16 brought pursuant to subsection (a) of this section, may award
17 costs, of litigation including reasonable attorneys’ fees to any
18 party, whenever the court determines such award is appropri-
19 ate. The court may, if a temporary restraining order or
20 preliminary injunction is sought, require the filing of a bond
21 or equivalent security in accordance with the Federal Rules
22 of Civil Procedure.

23 “(e) Nothing in this section shall restrict any right
24 which any person or class of persons may have under this
25 or any statute or common law to seek enforcement of any

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1 of the provisions of this Act and the regulations thereunder,
2 or to seek any other relief, including relief against the
3 Secretary.

4 "LIABILITY FOR OILSPILLS

5 "SEC. 26. (a) Any person in charge of any oil and/or
6 gas operations in the Outer Continental Shelf, as soon as that
7 person has knowledge of a discharge or spillage of oil from
8 any operation, shall immediately notify the nearest Coast
9 Guard installation, of such discharge. Any such individual
10 who fails to notify an appropriate agency of the United
11 States Government immediately of such discharge shall, upon
12 conviction, be fined not more than \$10,000 or imprisoned
13 for not more than one year, or both. Notification received
14 pursuant to this subsection, or information obtained by the
15 use of such notification, shall not be used against any such
16 individual in any criminal case, except a prosecution for
17 perjury or for giving a false statement.

18 " (b) (1) Whenever any oil or natural gas is discharged
19 or spilled as a result of an operation on the Outer Continental
20 Shelf, the Secretary for the Department in which the Coast
21 Guard is operating shall remove or arrange for the removal
22 of such oil or natural gas as soon as possible, unless that Sec-
23 retary determines such removal will be done properly and
24 expeditiously by the lessee or permittee of the operation from
25 which the discharge occurs.

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1 “(2) Removal of oil or natural gas and actions to mini-
2 mize damage from oil and natural gas discharges shall, to the
3 greatest extent possible, be in accordance with the National
4 Contingency Plan for removal of oil and hazardous sub-
5 stances established pursuant to section 311 (c) (2) of the
6 Federal Water Pollution Control Act, as amended (86 Stat.
7 862; 33 U.S.C. 1321 et seq.).

8 “(3) Whenever the Secretary of the Department in
9 which the Coast Guard is operating acts to remove a dis-
10 charge or spillage of oil or natural gas pursuant to this sub-
11 section, he is authorized to draw upon money available in
12 the Offshore Oil Pollution Settlements Fund established pur-
13 suant to subsection (c) of this section. Such money shall be
14 used to pay promptly for all cleanup costs incurred by the
15 United States Government in removing or in minimizing
16 damage caused by such oil or natural gas spillage of discharge.

17 “(c) (1) Notwithstanding the provisions of any other
18 law, the holder of a lease or right-of-way issued or maintained
19 under this Act and the Offshore Oil Pollution Settlements
20 Fund (hereinafter referred to as the “fund”) established by
21 this subsection shall be strictly liable without regard to fault
22 and without regard to ownership of any adversely affected
23 lands, structures, fish, wildlife, or biotic or other natural
24 resources relied upon by any damaged party for subsistence
25 or economic purposes, in accordance with the provisions of

1 this subsection for all damages, sustained by any person as a
2 result of discharges of oil or gas from any operation au-
3 thorized under this Act if such damages occurred (A) within
4 the territory of the United States, Canada, or Mexico or
5 (B) in or on waters within two hundred nautical miles of
6 the baseline of the United States, Canada, or Mexico from
7 which the territorial sea of the United States, Canada, or
8 Mexico is measured, or (C) within one hundred nautical
9 miles of any operation authorized under this Act. Claims for
10 such injury or damages may be determined by arbitration or
11 judicial proceedings.

12 “(2) Strict liability shall not be imposed under this sub-
13 section on the holder or the fund if the holder or the fund
14 proves that the damage was caused by an act of war. Strict
15 liability shall not be imposed under this subsection on the
16 holder if the holder proves that the damage was caused by
17 the negligence of the United States or other governmental
18 agency. Strict liability shall not be imposed under this sub-
19 section with respect to the claim of a damaged person if the
20 holder or the fund proves that the damage was caused by the
21 negligence or intentional act of such person.

22 “(3) Strict liability for all claims arising out of any one
23 incident shall not exceed \$100,000,000. The holder shall be
24 liable for the first \$7,000,000 of such claims that are allowed.
25 The fund shall be liable for the balance of the claims that are

1 allowed up to \$100,000,000. If the total claims allowed ex-
2 ceed \$100,000,000, they shall be reduced proportionately.
3 The unpaid portion of any claim may be asserted and adjudi-
4 cated under other applicable Federal or State law.

5 “(4) In any case where liability without regard to fault
6 is imposed pursuant to this subsection, the rules of subro-
7 gation shall apply in accordance with the laws of the State
8 in which such damages occurred: *Provided, however,* That
9 in the event such damages occurred outside the jurisdiction
10 of any State, the rules of subrogation shall apply in accord-
11 ance with the laws applicable pursuant to section 4 of this
12 Act.

13 “(5) The Offshore Oil Pollution Settlements Fund is
14 hereby established as a nonprofit corporate entity that may
15 sue and be sued in its own name. The fund shall be admin-
16 istered by the holders of leases issued under this Act under
17 regulations prescribed by the Secretary. The fund shall be
18 subject to an annual audit by the Comptroller General, and
19 a copy of the audit shall be submitted to the Congress.
20 Claims allowed against the fund shall be paid only from
21 moneys deposited in the fund.

22 “(6) There is hereby imposed on each barrel of oil
23 produced pursuant to any lease issued or maintained under
24 this Act a fee of 2½ cents per barrel. The fund shall collect the
25 fee from the lessees or their assignees. Costs of administration

1 shall be paid from the money collected by the fund, and all
2 sums not needed for administration and the satisfaction of
3 claims shall be invested prudently in income-producing
4 securities approved by the Secretary. Income from such
5 securities shall be added to the principal of the fund.

6 “(7) Subject to the limitation contained in subparagraph
7 (3) of this subsection, if the fund is unable to satisfy a claim
8 asserted and finally determined under this subsection, the
9 fund may borrow the money needed to satisfy the claim from
10 any commercial credit source, at the lowest available rate
11 of interest, subject to the approval of the Secretary.

12 “(8) No compensation shall be paid under this subsection
13 unless notice of the damage is given to the Secretary
14 within three years following the date on which the damage
15 occurred.

16 “(9) Payment of compensation for any damage pursuant
17 to this subsection shall be subject to the holder or the
18 fund acquiring by subrogation all rights of the claimant to
19 recover for such damages from any other person.

20 “(10) The collection of amounts for the fund shall cease
21 when \$100,000,000 has been accumulated, but shall be renewed
22 when the accumulation in the fund falls below \$85,-
23 000,000. The fund shall insure that collections are equitable
24 to all holders of a lease or right-of-way.

1 “(11) The several district courts of the United States
2 shall have jurisdiction over claims against the fund.

3 “(c) If any area within or without a lease granted
4 or maintained under this Act is polluted by any discharge
5 or spillage of oil from operations conducted by or on behalf
6 of the holder of such lease, and such pollution damages or
7 threatens to damage aquatic life, wildlife, or public or pri-
8 vate property, the control and removal of the pollutant
9 shall be at the expense of such holder, including administra-
10 tive and other costs incurred by the Secretary or any other
11 Federal or State officer or agency. Upon failure of such
12 holder to adequately control and remove such pollutant, the
13 Secretary in cooperation with other Federal, State, or local
14 agencies, or in cooperation with such holder, or both, shall
15 have the right to accomplish the control and removal at the
16 expense of the holder.

17 “(d) The Secretary shall establish requirements that
18 all holders of leases issued or maintained under this Act
19 shall establish and maintain evidence of financial responsi-
20 bility of not less than \$7,000,000. Financial responsibility
21 may be established by any one of, or a combination of, the
22 following methods acceptable to the Secretary (A) evi-
23 dence of insurance, (B) surety bonds, (C) qualification as
24 a self-insurer, or (D) other evidence of financial responsi-

1 bility. Any bond filed shall be issued by a bonding company
2 authorized to do business in the United States.

3 “(e) The provisions of this section shall not be inter-
4 preted to supersede section 311 of the Federal Water Pollu-
5 tion Control Act Amendments of 1972 or preempt the field
6 of strict liability or to enlarge or diminish the authority of
7 any State to impose additional requirements.

8 “RESEARCH AND DEVELOPMENT

9 “SEC. 27. (a) The Secretary of the Department in which
10 the Coast Guard is operating is authorized and directed to
11 carry out a research and development program designed to
12 improve safety of operations related to exploration and de-
13 velopment of the oil and gas resources of the Outer Con-
14 tinental Shelf where similar programs are not presently being
15 conducted by a Federal department or agency and where the
16 Secretary determines that such research and development is
17 not being adequately conducted by any other public or pri-
18 vate entity including but not limited to—

19 “(1) downhole safety devices;

20 “(2) methods for reestablishing control of blowing
21 out or burning wells;

22 “(3) methods for containing and cleaning up oil-
23 spills; and

1 “(4) improved flow detection systems for undersea
2 pipelines.

3 “(b) The Secretary of the Department in which the
4 Coast Guard is operating shall establish equipment and per-
5 formance standards for oilspill cleanup operations. Such
6 standards shall be coordinated with the national oil and
7 hazardous substances pollution contingency plan, and re-
8 viewed by the Administrator of the Environmental Protec-
9 tion Agency, and the Administrator of the National Oceanic
10 and Atmospheric Administration.

11 “(c) The Administrator of the National Oceanic and At-
12 mospheric Administration, in cooperation with the Secretary
13 of the Navy, the Secretary of the Department in which the
14 Coast Guard is operating, and the Directors of the Na-
15 tional Institutes of Occupational Safety and Occupational
16 Health, shall conduct studies of underwater diving techniques
17 and equipment suitable for protection of human safety.

18 “DETERMINATION OF BOUNDARIES

19 “SEC. 28. Within one year following the date of enact-
20 ment of this section, the President may establish procedures
21 for settling any outstanding boundary disputes, including in-
22 ternational boundaries between the United States and Canada
23 and between the United States and Mexico, and establish
24 contiguous boundaries between adjacent States, as directed
25 in section 4 of this Act.

1 “MORATORIUM ON LEASING IN FRONTIER AREAS

2 “SEC. 29 (a) Immediately upon the date of enactment
3 of this section there shall cease any additional leasing of tracts
4 for the purpose of developing oil and gas under the authority
5 of the Outer Continental Shelf Lands Act (67 Stat. 462; 43
6 U.S.C. 1331 et seq.) in all regions and areas where there
7 has been no previous development of oil and gas on the Outer
8 Continental Shelf or other areas where geological or environ-
9 mental conditions make oil and gas development hazardous
10 (hereinafter referred to as ‘frontier areas’): to wit, the
11 areas known as Georges Bank; Baltimore Canyon; Blake
12 Plateau; and the portion of the Florida Embayment in the
13 Atlantic Ocean; southern California, including the Santa
14 Barbara Channel; and Gulf of Alaska. To the extent that
15 leasing has commenced in these areas under the present rules
16 and regulations in force, the Secretary of the Interior shall
17 terminate negotiations with regard to all tracts which have
18 been nominated for sale, are in the process of being nomi-
19 nated for sale, or have been designated for sale.

20 “(b) This moratorium shall continue in any area until
21 such time as the Federal Outer Continental Shelf oil and
22 gas exploration program is implemented in that area pur-
23 suant to section 19 of the Outer Continental Shelf Lands Act
24 and the frontier areas are explored as provided for; and Con-
25 gress has concurred by its silence with an Outer Continental

1 Shelf leasing and developing plan for that area submit-
2 ted in compliance with section 20 of this Act.”.

3 TITLE III—MISCELLANEOUS PROVISIONS

4 PIPELINE SAFETY AND OPERATION

5 SEC. 301. (a) The Secretary of Transportation in coop-
6 eration with the Secretary of the Interior, is authorized and
7 directed to report to the Congress within sixty days after
8 enactment of this Act on appropriations and staffing needed
9 to monitor pipelines on Federal lands and the Outer Con-
10 tinental Shelf so as to assure that they meet all applicable
11 standards of construction, operation, and maintenance.

12 (b) The Secretary of Transportation, in cooperation
13 with the Secretary of the Interior, is authorized and directed
14 to review all laws and regulations relating to the construc-
15 tion, operation, and maintenance of pipelines on Federal
16 lands and the Outer Continental Shelf and report to Con-
17 gress within one year after enactment of this Act on adminis-
18 trative changes needed and recommendations for new
19 legislation.

20 (c) One year after the date of the enactment of this Act,
21 the Interstate Commerce Commission and the Secretary
22 of Transportation shall submit to the President and the Con-
23 gress a report on the adequacy of existing transport facilities
24 and regulations to facilitate distribution of oil and gas re-
25 sources of the Outer Continental Shelf. The report shall

1 include recommendations for changes in existing legislation
2 or regulations to facilitate such distribution.

3 REVIEW OF SHUT-IN OR FLARING WELLS

4 SEC. 302. (a) Within six months after enactment of
5 this Act, and each year thereafter, the Secretary shall sub-
6 mit a report to Comptroller General and the Congress listing
7 all shut-in oil and gas wells and wells flaring natural gas on
8 leases issued under the Outer Continental Shelf Lands Act.
9 The reports shall indicate why each well is shut-in or flaring
10 natural gas, and whether the Secretary intends to require
11 production or order cessation of flaring.

12 (b) Within six months after receipt of the Secretary's
13 reports, the Comptroller General shall review and evaluate
14 the reasons for allowing the wells to be shut-in or to flare
15 natural gas and submit his findings and recommendations
16 to Congress.

17 BIDDING SYSTEM STUDY

18 SEC. 303. Within one year after the date of enactment
19 of this Act, the Secretary of the Interior, in consultation
20 with the Comptroller General, shall prepare and publish a
21 report with recommendations for achieving an equitable sys-
22 tem of lease sales while maximizing production and revenues
23 from the leasing of Outer Continental Shelf Lands, and shall
24 include a plan for implementing recommended administra-
25 tive changes and legislative proposals. Such report shall

1 include but not be limited to the consideration of the fol-
2 lowing—

3 (1) competitive bidding systems provided in section
4 8 of the Outer Continental Shelf Lands Act as amended
5 by this Act;

6 (2) measures to encourage entry of new competi-
7 tors; and

8 (3) measures to increase supply to independent
9 refiners and distributors.

10 NATIONAL STRATEGIC ENERGY RESERVE STUDY

11 SEC. 304. The Secretary of the Interior, in consultation
12 with appropriate Federal officials, shall determine the extent
13 and location of the oil and gas deposits held in reserve by
14 the United States Government. The Secretary shall study
15 the most appropriate means of developing a National Stra-
16 tegic Energy Reserve in the national interest. Included in
17 the study shall be an assessment of the feasibility of estab-
18 lishing areas in the Outer Continental Shelf as strategic
19 reserves, and the plausibility of developing certain existing
20 onshore naval petroleum reserves for commercial production
21 in exchange for designating comparable offshore oil and gas
22 reserves as a National Strategic Energy Reserve. The Secre-
23 tary shall consult with other Federal agencies and depart-
24 ments and nongovernmental authorities in conducting such

1 study. The Secretary shall report to the Congress by July
2 1976 the results of such study.

3 RELATIONSHIP TO EXISTING LAW

4 SEC. 305. Except as otherwise expressly provided here-
5 in, nothing in this Act shall be construed to amend, modify,
6 or repeal any provisions of the Coastal Zone Management
7 Act of 1972 or the National Environmental Policy Act of
8 1969.

94TH CONGRESS
1ST SESSION

S. 470

IN THE SENATE OF THE UNITED STATES

JANUARY 28, 1975

Mr. WILLIAMS introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

A BILL

To amend the Coastal Zone Management Act of 1972 to suspend until no later than June 30, 1976, Federal oil and gas leasing in areas seaward of State coastal zones.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That section 307 of the Coastal Zone Management Act of
4 1972 (16 U.S.C. 1455) is amended by adding at the end
5 thereof the following new subsection:

6 “(i) Notwithstanding any other provision of law, the
7 Secretary of the Interior may not grant any lease for the
8 exploration and development of oil and gas deposits of sub-
9 merged lands of the Outer Continental Shelf which are sea-

1 ward of the seaward boundary of any coastal State before
2 whichever of the following dates first occurs:

3 “(1) the date on which the Secretary finally
4 approves the coastal zone management program of the
5 State pursuant to section 306; or

6 “(2) June 30, 1976.”.

94TH CONGRESS
1ST SESSION

S. 521

IN THE SENATE OF THE UNITED STATES

FEBRUARY 3, 1975

MR. JACKSON (for himself, Mr. JOHNSTON, Mr. METCALF, and Mr. RANDOLPH) introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

A BILL

To increase the supply of energy in the United States from the Outer Continental Shelf; to amend the Outer Continental Shelf Lands Act; and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
 2 *tives of the United States of America in Congress assembled,*
 3 That this Act may be cited as the "Energy Supply Act of
 4 1975".

TABLE OF CONTENTS

Sec. 1. Short title and table of contents.

TITLE I—FINDINGS AND PURPOSES

Sec. 101. Findings.

Sec. 102. Purposes.

1 (5) consumption of natural gas in the United States
2 has greatly exceeded additions to domestic reserves in
3 recent years, so that currently available supplies are
4 less than demand;

5 (6) technology is or can be made available which
6 will allow sufficient production and consumption of
7 domestic energy supply to meet demands consistent with
8 national environmental policies;

9 (7) the Outer Continental Shelf contains significant
10 quantities of petroleum and natural gas, which are a
11 vital national reserve that must be carefully managed
12 in the public interest;

13 (8) there presently exists a variety of technological,
14 economic, environmental, administrative, and legal prob-
15 lems which tend to retard the development of the oil
16 and natural gas resources of the Outer Continental Shelf;

17 (9) it is the national policy to preserve, protect,
18 and develop the resources of this Nation's coastal zone,
19 and to provide for the orderly siting of energy facilities
20 therein;

21 (10) the development, processing, and distribution
22 of the oil and gas resources of the Outer Continental
23 Shelf, and the siting of related energy facilities, may
24 cause adverse impacts on the coastal zones of the various
25 coastal States; and

4

1 (11) the Coastal Zone Management Act of 1972
2 provides policy, procedures, and programs designed to
3 anticipate such adverse impacts and in part prevent
4 them by appropriate planning and management of land
5 and water resources in the coastal zone.

PURPOSES

7 SEC. 102. The purposes of this Act are to—

8 (1) increase domestic production of oil and natural
9 gas in order to assure material prosperity and national
10 security, reduce dependence on unreliable foreign
11 sources, and assist in maintaining a favorable balance
12 of payments;

13 (2) make oil and natural gas resources in the
14 Outer Continental Shelf available as rapidly as possible
15 consistent with the need for orderly resource develop-
16 ment, and protection of the environment, in a manner
17 consistent with the Mining and Mineral Policy Act of
18 1970 and designed to insure the public a fair market
19 return on disposition of public resources;

20 (3) encourage development of new and improved
21 technology for energy resource production that will
22 increase human safety and eliminate or reduce risk of
23 damage to the environment; and

24 (4) provide States which are directly impacted by
25 Outer Continental Shelf oil and gas exploration and de-

1 development with comprehensive assistance in order to
 2 assure adequate protection of the onshore social, eco-
 3 nomic, and environmental conditions of the coastal zone.

4 **TITLE II—INCREASED PRODUCTION OF OUTER**
 5 **CONTINENTAL SHELF ENERGY RESOURCES**

6 **NATIONAL POLICY FOR OUTER CONTINENTAL SHELF**

7 **SEC. 201.** Section 3 of the Outer Continental Shelf Lands
 8 Act is revised by adding the following new subsections (c)
 9 and (d) :

10 “(c) It is hereby declared that the Outer Continental
 11 Shelf is a vital national resource reserve held by the Federal
 12 Government for all the people, which should be made avail-
 13 able for orderly development, subject to environmental safe-
 14 guards, consistent with and when necessary to meet national
 15 needs.

16 “(d) It is hereby recognized that development of the
 17 oil and gas resources of the Outer Continental Shelf will have
 18 significant impact on coastal zone areas of adjacent States
 19 and that, in view of the national interest in the effective man-
 20 agement of the coastal zone, such States may require assist-
 21 ance in protecting their coastal zone insofar as possible from
 22 the adverse effects of such impact.”.

23 **NEW SECTIONS OF OUTER CONTINENTAL SHELF LANDS ACT**

24 **SEC. 202.** The Outer Continental Shelf Lands Act is
 25 hereby amended by adding the following new sections:

1 "DEVELOPMENT OF OUTER CONTINENTAL SHELF LEASING
2 PROGRAM

3 "SEC. 18. (a) Congress declares that it is the policy
4 of the United States that Outer Continental Shelf lands
5 determined to be both geologically favorable for the accumu-
6 lation of oil and gas and capable of supporting oil and gas
7 development without undue environmental hazard or damage
8 should be made available for leasing as soon as practicable
9 in accordance with subsection (b) of this section.

10 "(b) The Secretary is authorized and directed to prepare
11 and maintain a leasing program to implement the policy
12 set forth in subsection (a). The leasing program shall indi-
13 cate as precisely as possible the size, timing, and location
14 of leasing activity that will best meet national energy needs
15 for the ten-year period following its approval or reapproval
16 in a manner consistent with subsection (a) above and with
17 the following principles:

18 "(1) management of the Outer Continental Shelf in
19 a manner which considers all its resource values and the
20 potential impact of oil and gas exploration and develop-
21 ment on other resource values of the Outer Continental
22 Shelf and the marine environment;

23 "(2) timing and location of leasing to distribute
24 exploration, development, and production of oil and gas

1 among various areas of the Outer Continental Shelf,
2 considering:

3 “(A) existing information concerning their geo-
4 graphical, geological, and ecological characteristics;

5 “(B) their location with respect to, and rela-
6 tive needs of, regional energy markets;

7 “(C) their location with respect to other uses
8 of the sea and seabed including but not limited to
9 fishing areas, access to ports by vessels, and existing
10 or proposed sea lanes;

11 “(D) interest by potential oil and gas pro-
12 ducers in exploration and development as indicated
13 by tract nominations and other representations;

14 “(E) an equitable sharing of developmental
15 benefits and environmental risks among various
16 regions of the United States;

17 “(3) timing and location of leasing so that to the
18 maximum extent practicable areas with less environ-
19 mental hazard are leased first; and

20 “(4) receipt of fair market return for public
21 resources.

22 “(c) The program shall include estimates of the appro-
23 priations and staffing required of all existing Federal pro-
24 grams necessary to prepare the required environmental

1. impact statements, obtain resource data and any other infor-
2. mation needed to decide the order in which areas are to be
3. scheduled for lease, to make the analyses required prior to
4. offering tracts for lease, and to supervise operations under
5. every lease in the manner necessary to assure compliance
6. with the requirements of the law, the regulations, and the
7. lease.

8. “(d) The environmental impact statement on the leas-
9. ing program prepared in accordance with section 102 (2)
10. (C) of the National Environmental Policy Act of 1969,
11. shall include, but shall not be limited to, an assessment by
12. the Secretary of the relative significance of the probable
13. oil and gas resources of each area proposed to be offered
14. for lease in meeting national demands, the most likely
15. rate of exploration and development that is expected to
16. occur if the areas are leased, and the relative environmental
17. hazard of each area. Such environmental impact statement
18. shall be based on consideration of the following factors,
19. without being limited thereto: geological and geophysical
20. conditions, biological data on existing animal, marine, and
21. plant life, and commercial and recreational uses of nearby
22. land and water areas.

23. “(e) The Secretary shall, by regulation, establish pro-
24. cedures for receipt and consideration of nominations for
25. areas to be offered for lease or to be excluded from leasing,

1 for public notice of and participation in development of the
2 leasing program, for review by State and local governments
3 which may be impacted by the proposed leasing, and for
4 coordination of the program with management program
5 being developed by any State for approval pursuant to sec-
6 tion 305 of the Coastal Zone Management Act of 1972 and
7 with the management program of any State which has been
8 approved pursuant to section 306 of such Act. These proce-
9 dures shall be applicable to any revision or reapproval of
10 the leasing program.

11 “(f) The Secretary shall publish a proposed leasing
12 program in the Federal Register and submit it to the Con-
13 gress within two years after enactment of this section.

14 “(g) After the leasing program has been approved by
15 the Secretary or after January 1, 1978, whichever comes
16 first, no leases under this Act may be issued unless they are
17 for areas included in the approved leasing program.

18 “(h) The Secretary may revise and reapprove the leas-
19 ing program at any time and he must review and reapprove
20 the leasing program at least once each year.

21 “(i) The Secretary is authorized to obtain from public
22 sources, or to purchase from private sources, any surveys,
23 data, reports, or other information (excluding interpretations
24 of such data, surveys, reports, or other information) which

1 may be necessary to assist him in preparing environment
2 impact statements and making other evaluations required by
3 this Act. The Secretary shall maintain the confidentiality of
4 all proprietary data or information for such period of time
5 as is agreed to by the parties.

6 “(j) The heads of all Federal departments or agencies
7 are authorized and directed to provide the Secretary with
8 any nonproprietary information he requests to assist him in
9 preparing the leasing program. In addition, the Secretary
10 is authorized and directed to utilize the existing capabilities
11 and resources of other Federal departments and agencies
12 by appropriate agreement.

13 “(k) The program developed pursuant to this section
14 shall include the reservation of an appropriate area or areas
15 as a National Strategic Energy Reserve. The Secretary shall
16 confer with appropriate Federal officials to determine the
17 extent and locations of such reserves. The Secretary shall
18 study the most appropriate means of developing and main-
19 taining such reserves in the national interest. The Secretary
20 shall consult with other Federal agencies and departments
21 and nongovernmental authorities in conducting such study.
22 The Secretary shall report to the Congress by January 1,
23 1976 the results of such study.

1 "FEDERAL OUTER CONTINENTAL SHELF OIL AND GAS
2 SURVEY PROGRAM

3 "SEC. 19. (a) The Secretary is authorized and directed
4 to conduct a survey program regarding oil and gas resources
5 of the Outer Continental Shelf. This program shall be de-
6 signed to provide information about the probable location,
7 extent, and characteristics of such resources in order to
8 provide a basis for (1) development and revision of the
9 leasing program required by section 18 of this Act, (2)
10 greater and better informed competitive interest by potential
11 producers in the oil and gas resources of the Outer Con-
12 tinental Shelf, (3) more informed decisions regarding the
13 value of public resources and revenues to be expected from
14 leasing them, and (4) the mapping program required by
15 subsection (c) of this section.

16 "(b) The Secretary is authorized to contract for, or
17 purchase the results of or, where the required information is
18 not available from commercial sources, conduct seismic, geo-
19 magnetic, gravitational, geophysical, or geochemical investi-
20 gations, and to contract for or purchase the results of strati-
21 graphic drilling, needed to implement the provisions of this
22 section.

23 "(c) The Secretary, in cooperation with the Secretary

1 of Commerce, is directed to prepare and publish and keep
2 current a series of detailed bathymetric, geological, and geo-
3 physical maps of and reports about the Outer Continental
4 Shelf, based on nonproprietary data, which shall include, but
5 not necessarily be limited to, the results of seismic, gravita-
6 tional, and magnetic surveys on an appropriate grid spacing
7 to define the general bathymetry, geology, and geophysical
8 characteristics of the area. Such maps shall be prepared and
9 published no later than six months prior to the last day for
10 submission of bids for any areas of the Outer Continental
11 Shelf scheduled for lease on or after January 1, 1978.

12 “(d) Within six months after enactment of this section,
13 the Secretary shall develop and submit to Congress a plan
14 for conducting the survey and mapping programs required
15 by this section. This plan shall include an identification of
16 the areas to be surveyed and mapped during the first five
17 years of the programs and estimates of the appropriations and
18 staffing required to implement them.

19 “(e) The Secretary shall include in the annual report
20 required by section 15 of this Act, information concerning the
21 carrying out of his duties under this section, and shall in-
22 clude as a part of each such report a summary of the current
23 data for the period covered by the report.

24 “(f) No action taken to implement this section shall
25 be considered a major Federal action for the purposes of

1 section 102 (2) (C) of the National Environmental Policy
2 Act of 1969.

3 “(g) There are hereby authorized to be appropriated
4 such sums as are necessary to carry out the purposes of
5 this section during fiscal years 1975 and 1976, to the Secre-
6 tary and to appropriate Federal agencies having responsibili-
7 ties under this section.

8 “(h) The Secretary shall, by regulation, require that
9 any person holding a lease issued pursuant to this Act for oil
10 or gas exploration or development on the Outer Continental
11 Shelf shall provide the Secretary with any existing data (ex-
12 cluding interpretation of such data) about the oil or gas
13 resources in the area subject to the lease. The Secretary shall
14 maintain the confidentiality of all proprietary data or in-
15 formation until such time as he determines that public avail-
16 ability of such proprietary data or information would not
17 damage the competitive position of the lessee.

18 “SAFETY REGULATIONS FOR OIL AND GAS OPERATIONS

19 “SEC. 20. (a) POLICY.—It is the policy of this section
20 to insure, through improved techniques, maximum precau-
21 tions, and maximum use of the best available technology by
22 well-trained personnel, the safest possible operations in the
23 Outer Continental Shelf. Safe operations are those which
24 minimize the likelihood of blowouts, loss of well control,
25 fires, spillages, or other occurrences which may cause dam-

1 age to the environment, or to property, or endanger human
2 life or health.

3 “(b) REGULATIONS; STUDY.—(1) (A) The Secretary,
4 with the concurrence and advice of the Administrator of the
5 Environmental Protection Agency and the Secretary of the
6 Department in which the Coast Guard is operating, shall
7 develop, from time to time revise, and promulgate safety
8 regulations for operations in the Outer Continental Shelf, to
9 implement as fully as possible the policy of subsection (a)
10 of this section. Within one year after the enactment of this
11 section, the Secretary shall complete a review of existing
12 safety regulations, consider the results and recommendations
13 of the study authorized in paragraph (2) of this subsection,
14 and promulgate a complete set of safety regulations (which
15 may include Outer Continental Shelf orders) applicable to
16 operations in the Outer Continental Shelf or any region
17 thereof. Any safety regulations in effect on the date of en-
18 actment of this section which the Secretary finds should be
19 retained shall be repromulgated according to the terms of
20 this section, but shall remain in effect until so repromulgated.
21 No safety regulations (other than field orders) promulgated
22 pursuant to this subsection shall reduce the degree of safety
23 or protection to the environment afforded by safety regula-
24 tions previously in effect.

25 “(B) In promulgating regulations under this section, the

1 Secretary shall require on all new drilling and production
2 operations and, wherever practicable on already existing
3 operations, the use of the best available technology wherever
4 failure of equipment would have a substantial effect on public
5 health, safety, or the environment.

6 “(2) Upon the enactment of this section, the National
7 Academy of Engineering shall conduct a study of the ade-
8 quacy of existing safety regulations and technology, equip-
9 ment, and techniques for operations in the Outer Continental
10 Shelf, including but not limited to the subjects listed in sub-
11 section (a) of this section. Not later than nine months
12 after the enactment of this section, the results of the study
13 and recommendations for improved safety regulations shall
14 be submitted to the Congress and to the Secretary.

15 “RESEARCH AND DEVELOPMENT

16 “SEC. 21. (a) The Secretary is authorized and directed
17 to carry out a research and development program designed to
18 improve technology related to development of the oil and
19 gas resources of the Outer Continental Shelf where similar
20 programs are not presently being conducted by any Federal
21 department or agency and where he determines that such
22 research and development is not being adequately conducted
23 by any other public or private entity including but not
24 limited to—

25 “(1) downhole safety devices,

16

1 “(2) methods for reestablishing control of blowing
2 out or burning wells,

3 “(3) methods for containing and cleaning up oil
4 spills,

5 “(4) improved drilling bits,

6 “(5) improved flow detection systems for undersea
7 pipelines,

8 “(6) new or improved methods of development in
9 water depths over six hundred meters, and

10 “(7) subsea production systems.

11 “(b) The Secretary, with the concurrence of the Sec-
12 retary of the department in which the Coast Guard is oper-
13 ating, shall establish equipment and performance standards
14 for oil spill cleanup plans and operations. Such standards
15 shall be coordinated with the National Oil and Hazardous
16 Substances Pollution Contingency Plan, and reviewed by
17 the Administrator of the Environmental Protection Agency,
18 and the Administrator of the National Oceanic and Atmos-
19 pheric Administration.

20 “(c) The Secretary of Commerce, in cooperation with
21 the Secretary of the Navy, the Secretary of the Department
22 in which the Coast Guard is operating, and the Director of
23 the National Institutes of Occupational Safety and Health,
24 shall conduct studies of underwater diving techniques and
25 equipment suitable for protection of human safety.

1 "ENFORCEMENT OF SAFETY REGULATIONS; INSPECTIONS

2 "SEC. 22. (a) (1) The Secretary and the Secretary
3 of the department in which the Coast Guard is operating
4 shall jointly enforce the safety and environmental protec-
5 tion regulations promulgated under this Act. They shall
6 regularly inspect all operations authorized pursuant to this
7 Act and strictly enforce safety regulations promulgated pur-
8 suant to this Act and other applicable laws and regulations
9 relating to public health, safety, or environmental protec-
10 tion. All holders of leases under this Act shall allow promptly
11 access at the site of any operations subject to safety regula-
12 tions to any inspector, and provide such documents and rec-
13 ords that are pertinent to public health, safety, or environ-
14 mental protection, as such Secretaries or their designees may
15 request.

16 "(2) The Secretary, with the concurrence of the Sec-
17 retary of the department in which the Coast Guard is oper-
18 ating, shall promulgate regulations within ninety days of
19 the enactment of this section to provide for—

20 "(A) physical observation at least once each year
21 by an inspector of the installation or testing of all
22 safety equipment designed to prevent or ameliorate
23 blowouts, fires, spillages, or other major accidents; and

24 "(B) periodic onsite inspection without advance

1 notice to the lessee to assure compliance with public
2 health, safety, or environmental protection regulations.

3 “(3) The Secretary of the department in which the
4 Coast Guard is operating shall make an investigation and
5 public report on all major fires and major oil spillage occur-
6 ring as a result of operations pursuant to this Act. For the
7 purposes of this subsection, a major oil spillage is any spillage
8 in one instance of more than two hundred barrels of oil over
9 a period of thirty days: *Provided*, That he may, in his dis-
10 cretion, make an investigation and report of lesser oil spill-
11 ages. All holders of leases under this Act shall cooperate
12 with him in the course of such investigations.

13 “(4) For the purposes of carrying out their responsibili-
14 ties under this section, the Secretary or the Secretary of the
15 department in which the Coast Guard is operating may by
16 agreement utilize with or without reimbursement the serv-
17 ices, personnel, or facilities of any Federal agency.

18 “(b) The Secretary shall include in his annual report
19 to Congress required by section 15 of this Act the number
20 of violations of safety regulations found, the names of the
21 violators, and the action taken thereon.

22 “(c) The Secretary shall consider any allegation from
23 any person of the existence of a violation of any safety regu-
24 lations issued under this Act. The Secretary shall answer
25 such allegation no later than ninety days after receipt thereof,

1 stating whether or not such alleged violations exist and, if
2 so, what action has been taken.

3 “(d) In any investigation directed by this section the
4 Secretary or the Secretary of the department in which the
5 Coast Guard is operating shall have power to summon before
6 them or their designees witnesses and to require the produc-
7 tion of books, papers, documents, and any other evidence.
8 Attendance of witnesses or the production of books, papers,
9 documents, or any other evidence shall be compelled by a
10 similar process as in the United States district court. In
11 addition, they or their designees shall administer all nec-
12 essary oaths to any witnesses summoned before said investi-
13 gation.

14 “LIABILITY FOR OIL SPILLS

15 “SEC. 23. (a) Any person in charge of any operations
16 in the Outer Continental Shelf, as soon as he has knowledge
17 of a discharge or spillage of oil from an operation, shall im-
18 mediately notify the appropriate agency of the United States
19 Government of such discharge.

20 “(b) (1) Notwithstanding the provisions of any other
21 law, the holder of a lease or right-of-way issued or maintained
22 under this Act and the Offshore Oil Pollution Settlements
23 Fund (hereinafter referred to as “the fund”) established by
24 this subsection shall be strictly liable without regard to fault
25 and without regard to ownership of any adversely affected

1 lands, structures, fish, wildlife, or biotic or other natural
2 resources relied upon by any damaged party for subsistence
3 or economic purposes, in accordance with the provisions of
4 this subsection for all damages, sustained by any person as a
5 result of discharges of oil or gas from any operation au-
6 thorized under this Act if such damages occurred (A) within
7 the territory of the United States, Canada, or Mexico or
8 (B) in or on waters within two hundred nautical miles of
9 the baseline of the United States, Canada, or Mexico from
10 which the territorial sea of the United States, Canada, or
11 Mexico is measured, or (C) within one hundred nautical
12 miles of any operation authorized under this Act. Claims for
13 such injury or damages may be determined by arbitration or
14 judicial proceedings.

15 “(2) Strict liability shall not be imposed under this sub-
16 section on the holder or the fund if the holder or the fund
17 proves that the damage was caused by an act of war. Strict
18 liability shall not be imposed under this subsection on the
19 holder if the holder proves that the damage was caused by
20 the negligence of the United States or other governmental
21 agency. Strict liability shall not be imposed under this sub-
22 section with respect to the claim of a damaged person if the
23 holder or the fund proves that the damage was caused by the
24 negligence or intentional act of such person.

25 “(3) Strict liability for all claims arising out of any one

1 incident shall not exceed \$100,000,000. The holder shall be
2 liable for the first \$7,000,000 of such claims that are allowed.
3 The fund shall be liable for the balance of the claims that are
4 allowed up to \$100,000,000. If the total claims allowed ex-
5 ceed \$100,000,000, they shall be reduced proportionately.
6 The unpaid portion of any claim may be asserted and adjudi-
7 cated under other applicable Federal or State law.

8 “(4) In any case where liability without regard to fault
9 is imposed pursuant to this subsection, the rules of subro-
10 gation shall apply in accordance with the laws of the State
11 in which such damages occurred: *Provided, however,* That
12 in the event such damages occurred outside the jurisdiction
13 of any State, the rules of subrogation shall apply in accord-
14 ance with the laws applicable pursuant to section 4 of this
15 Act.

16 “(5) The Offshore Oil Pollution Settlements Fund is
17 hereby established as a nonprofit corporate entity that may
18 sue and be sued in its own name. The fund shall be admin-
19 istered by the holders of leases issued under this Act under
20 regulations prescribed by the Secretary. The fund shall be
21 subject to an annual audit by the Comptroller General, and
22 a copy of the audit shall be submitted to the Congress.
23 Claims allowed against the fund shall be paid only from
24 moneys deposited in the fund.

25 “(6) There is hereby imposed on each barrel of oil

1 produced pursuant to any lease issued or maintained under
2 this Act a fee of $2\frac{1}{2}$ cents per barrel. The fund shall collect
3 the fee from the lessees or their assignees. Costs of admin-
4 istration shall be paid from the money collected by the fund,
5 and all sums not needed for administration and the satisfac-
6 tion of claims shall be invested prudently in income produc-
7 ing securities approved by the Secretary. Income from such
8 securities shall be added to the principal of the fund.

9 “(7) Subject to the limitation contained in subparagraph
10 (3) of this subsection, if the fund is unable to satisfy a claim
11 asserted and finally determined under this subsection, the
12 fund may borrow the money needed to satisfy the claim from
13 any commercial credit source, at the lowest available rate of
14 interest, subject to the approval of the Secretary.

15 “(8) No compensation shall be paid under this subsec-
16 tion unless notice of the damage is given to the Secretary
17 within three years following the date on which the damage
18 occurred.

19 “(9) Payment of compensation for any damage pur-
20 suant to this subsection shall be subject to the holder or the
21 fund acquiring by subrogation all rights of the claimant to
22 recover for such damages from any other person.

23 “(10) The collection of amounts for the fund shall cease
24 when \$100,000,000 has been accumulated, but shall be re-
25 newed when the accumulation in the fund falls below \$85,-

1 000,000. The fund shall insure that collections are equitable
2 to all holders of a lease or right-of-way.

3 “(11) The several district courts of the United States
4 shall have jurisdiction over claims against the fund.

5 “(c) If any area within or without a lease granted
6 or maintained under this Act is polluted by any discharge
7 or spillage of oil from operations conducted by or on behalf
8 of the holder of such lease, and such pollution damages or
9 threatens to damage aquatic life, wildlife, or public or private
10 property, the control and removal of the pollutant shall
11 be at the expense of such holder, including administrative
12 and other costs incurred by the Secretary or any other Fed-
13 eral or State officer or agency. Upon failure of such holder
14 to adequately control and remove such pollutant, the Sec-
15 retary in cooperation with other Federal, State, or local
16 agencies, or in cooperation with such holder, or both, shall
17 have the right to accomplish the control and removal at the
18 expense of the holder.

19 “(d) The Secretary shall establish requirements that
20 all holders of leases issued or maintained under this Act
21 shall establish and maintain evidence of financial responsi-
22 bility of not less than \$7,000,000. Financial responsibility
23 may be established by any one of, or a combination of, the
24 following methods acceptable to the Secretary: (A) evi-
25 dence of insurance, (B) surety bonds, (C) qualification as

1 a self-insurer, or (D) other evidence of financial responsi-
2 bility. Any bond filed shall be issued by a bonding company
3 authorized to do business in the United States.

4 “(e) The provisions of this section shall not be inter-
5 preted to supersede section 311 of the Federal Water Pollu-
6 tion Control Act Amendments of 1972 or preempt the field
7 of strict liability or to enlarge or diminish the authority of
8 any State to impose additional requirements.

9 “NEGOTIATIONS WITH STATES

10 “SEC. 24. The Secretary is authorized and directed to
11 negotiate with those coastal States which are asserting juris-
12 diction over the Outer Continental Shelf with a view to
13 developing interim agreements which will allow energy
14 resource development prior to final judicial resolution of the
15 dispute.

16 “DETERMINATION OF BOUNDARIES

17 “SEC. 25. Within one year following the date of enact-
18 ment of this section, the President may establish proce-
19 dures for settling any outstanding boundary disputes, includ-
20 ing international boundaries between the United States and
21 Canada and between the United States and Mexico, and
22 establish boundaries between adjacent States, as directed in
23 section 4 of this Act.

"COASTAL STATE FUND

1

2 "SEC. 26. (a) There is hereby established in the Treas-
3 ury of the United States the Coastal State Fund (hereinafter
4 referred to as the 'fund'). The Secretary shall manage and
5 make grants from the fund according to the regulations
6 established pursuant to subsections (b) and (c) to the
7 coastal States impacted by anticipated or actual oil and gas
8 production.

9

10 "(b) The purpose of such grants shall be to assist coastal
11 States impacted by anticipated or actual oil and gas produc-
12 tion to ameliorate adverse environmental effects and control
13 secondary social and economic impacts associated with the
14 development of Federal energy resources in, or on the Outer
15 Continental Shelf adjacent to the submerged lands of such
16 States. Such grants may be used for planning, construction
17 of public facilities, and provision of public services, and such
18 other activities as may be prescribed by regulations promul-
19 gated pursuant to subsection (c) of this section. Such regu-
20 lations shall, at a minimum, (1) provide that such regulations
21 be directly related to such environmental effects and social
22 and economic impacts; (2) take into consideration the acre-
23 age leased or proposed to be leased and the volume of pro-
duction of oil and gas from the Outer Continental Shelf off the

1 adjacent coastal State; and (3) require each coastal State,
2 as a requirement of eligibility for grants from the fund, to
3 establish pollution containment and cleanup systems for pol-
4 lution from oil and gas development activities on the sub-
5 merged lands of each such State.

6 “(c) The Secretary of Commerce, in accordance with
7 the provisions of subsection (b), and this subsection, shall,
8 by regulation, establish requirements for grant eligibility:
9 *Provided*, That it is the intent of this section that grants shall
10 be made to impacted coastal States to the maximum extent
11 permitted by subsection (d) of this section and that grants
12 shall be made to impacted coastal States in proportion to the
13 effects and impacts of offshore oil and gas exploration, de-
14 velopment and production on such States. Such grants shall
15 not be on a matching basis but shall be adequate to com-
16 pensate impacted coastal States for the full costs of any
17 environmental effects and social and economic impacts of
18 offshore oil and gas exploration, development, and produc-
19 tion. The Secretary shall coordinate all grants with manage-
20 ment programs established pursuant to the Coastal Zone
21 Management Act of 1972.

22 “(d) Notwithstanding any other provision of law, 10
23 per centum of the Federal revenues from the Outer Con-
24 tinental Shelf Lands Act, as amended by this Act, or the
25 equivalent of forty (\$.40) cents per barrel from the Federal

1 revenues from the Outer Continental Shelf Act, whichever
2 is greater, shall be paid into the funds: *Provided*, That the
3 total amount paid into the fund shall not exceed \$200,-
4 000,000 per year for fiscal 1976 and 1977.

5 “(e) There is hereby authorized to be appropriated to
6 the fund \$100,000,000.

7 “(f) For the purpose of this Act, ‘coastal State’ means
8 a State of the United States in, or bordering on, the Atlantic,
9 Pacific, or Arctic Ocean, the Gulf of Mexico, or Long Island
10 Sound, including Puerto Rico, the Virgin Islands, Guam,
11 and American Samoa.

12 “CITIZEN SUITS

13 “SEC. 27. (a) Except as provided in subsection (b) of
14 this section, any person having an interest which is or may
15 be adversely affected may commence a civil action on his
16 own behalf—

17 “(1) against any person including—

18 “(A) the United States, and

19 “(B) any other governmental instrumentality
20 or agency to the extent permitted by the eleventh
21 amendment to the Constitution who is alleged to be
22 in violation of the provisions of this Act or the reg-
23 ulation promulgated thereunder, or any permit or
24 lease issued by the Secretary; or

25 “(2) against the Secretary where there is alleged

1 a failure of the Secretary to perform any act or duty
2 under this Act which is not discretionary with the
3 Secretary.

4 “(b) No action may be commenced—

5 “(1) under subsection (a) (1) of this section—

6 “(A) prior to sixty days after the plaintiff has
7 given notice in writing under oath of the violation
8 (i) to the Secretary, and (ii) to any alleged vio-
9 lator of the provisions of this Act or any regula-
10 tions promulgated thereunder, or any permit or
11 lease issued thereunder;

12 “(B) if the Secretary has commenced and is
13 diligently prosecuting a civil action in a court of the
14 United States to require compliance with the provi-
15 sions of this Act or the regulations thereunder, or
16 the lease, but in any such action in a court of the
17 United States any person may intervene as a matter
18 of right; or

19 “(2) Under subsection (a) (2) of this section prior
20 to sixty days after the plaintiff has given notice in writ-
21 ing under oath of such action to the Secretary, in such
22 manner as the Secretary shall by regulation prescribe,
23 except that such action may be brought immediately
24 after such notification in the case where the violation
25 complained of, constitutes an imminent threat to the

1 health or safety of the plaintiff or would immediately
2 affect a legal interest of the plaintiff.

3 “(c) In any action under this section, the Secretary, if
4 not a party, may intervene as a matter of right.

5 “(d) The court, in issuing any final order in any action,
6 brought pursuant to subsection (a) of this section, may
7 award costs of litigation including reasonable attorneys fees
8 to any party, whenever the court determines such award is
9 appropriate. The court may, if a temporary restraining order
10 or preliminary injunction is sought, require the filing of a
11 bond or equivalent security in accordance with the Federal
12 Rules of Civil Procedure.

13 “(e) Nothing in this section shall restrict any right
14 which any person or class of persons may have under this
15 or any statute or common law to seek enforcement of any
16 of the provisions of this Act and the regulations thereunder,
17 or to seek any other relief, including relief against the
18 Secretary.

19 “PROMOTION OF COMPETITION

20 “SEC. 28. Within one year after the date of enactment
21 of this section, the Secretary shall prepare and publish a
22 report with recommendations for promoting competition and
23 maximizing production and revenues from the leasing of
24 Outer Continental Shelf lands, and shall include a plan for
25 implementing recommended administrative changes and

1 drafts of any proposed legislation. Such report shall include
2 consideration of the following—

3 “(1) other competitive bidding systems permitted
4 under present law as compared to the bonus bidding
5 system;

6 “(2) evaluation of alternative bidding systems not
7 permitted under present law;

8 “(3) measures to ease entry of new competitors;
9 and

10 “(4) measures to increase supply to independent
11 refiners and distributors.

12 “ENFORCEMENT AND PENALTIES

13 “SEC. 29. (a) At the request of the Secretary, the
14 Attorney General may institute a civil action in the district
15 court of the United States for the district in which the
16 affected operation is located for a restraining order or injunc-
17 tion or other appropriate remedy to enforce any provision of
18 this Act or any regulation or order issued under the authority
19 of this Act.

20 “(b) If any person shall fail to comply with any provi-
21 sion of this Act, or any regulation or order issued under the
22 authority of this Act, after notice of such failure and expira-
23 tion of any period allowed for corrective action, such person
24 shall be liable for a civil penalty of not more than \$5,000 for
25 each and every day of the continuance of such failure. The

1 Secretary may assess, collect, and compromise any such
2 penalty. No penalty shall be assessed until the person charged
3 with a violation shall have been given an opportunity for a
4 hearing on such charge.

5 “(c) Any person who knowingly and willfully violates
6 any provision of this Act, or any regulation or order issued
7 under the authority of this Act designed to protect public
8 health, safety, or the environment or conserve natural re-
9 sources or knowingly and willfully makes any false state-
10 ment, representation, or certification in any application, rec-
11 ord, report, plan, or other document filed or required to be
12 maintained under this Act, or who knowingly and willfully
13 falsifies, tampers with, or renders inaccurate any monitoring
14 device or method of record required to be maintained under
15 this Act or knowingly and willfully reveals any data or in-
16 formation required to be kept confidential by this Act, shall,
17 upon conviction, be punished by a fine of not more than
18 \$100,000, or by imprisonment for not more than one year,
19 or both. Each day that a violation continues shall constitute
20 a separate offense.

21 “(d) Whenever a corporation or other entity violates
22 any provision of this Act, or any regulation or order issued
23 under the authority of this Act, any officer, or agent of such
24 corporation or entity who knowingly and willfully author-
25 ized, ordered, or carried out such violation shall be subject to

1 the same fines or imprisonment as provided for under sub-
2 section (c) of this section.

3 “(e) The remedies prescribed in this section shall be
4 concurrent and cumulative and the exercise of one does not
5 preclude the exercise of the others. Further, the remedies
6 prescribed in this section shall be in addition to any other
7 remedies afforded by any other law or regulation.

8 “ENVIRONMENTAL BASELINE AND MONITORING STUDIES

9 “SEC. 30. (a) Prior to permitting oil and gas drill-
10 ing on any area of the Outer Continental Shelf not pre-
11 viously leased under this Act, the Secretary, in consultation
12 with the Administrator of the National Oceanic and Atmos-
13 pheric Administration of the Department of Commerce, shall
14 make a study of the area involved to establish a baseline of
15 those critical parameters of the Outer Continental Shelf en-
16 vironment which may be affected by oil and gas development.
17 The study shall include, but need not be limited to, back-
18 ground levels of hydrocarbons in water, sediment, and or-
19 ganisms; background levels of trace metals in water, sedi-
20 ments, and organisms; characterization of benthic and plank-
21 tonic communities; description of sediments and relationships
22 between organisms and abiotic parameters; and standard
23 oceanographic measurements such as salinity, temperature,
24 micronutrients, dissolved oxygen.

25 “(b) Subsequent to development of any area studied

1 pursuant to subsection (a) of this section, the Secretary
2 shall monitor the areas involved in a manner designed to
3 provide time-series data which can be compared with pre-
4 viously collected data for the purpose of identifying any
5 significant changes.

6 “(c) In carrying out the provisions of this section,
7 the Secretary is directed to give preference to the use of Gov-
8 ernment owned and Government operated vessels, to the
9 maximum extent practicable, in contracting for work in
10 connection with such environmental baseline and monitor-
11 ing studies. In order to avoid needless duplications, the
12 Secretary shall coordinate all such activities with the Admin-
13 istrator of the National Oceanic and Atmospheric Adminis-
14 tration and shall, whenever possible, utilize existing Govern-
15 ment owned and Government operated marine research lab-
16 oratories in conducting research authorized by this section.”.

17 REVISION OF LEASE TERMS

18 SEC. 203. Section 8 of the Outer Continental Shelf Lands
19 Act is amended by revising subsections (a) and (b) to
20 read as follows:

21 “(a) The Secretary is authorized to grant to the highest
22 responsible qualified bidder by competitive bidding under
23 regulations promulgated in advance oil and gas leases on
24 submerged lands of the Outer Continental Shelf which are
25 not covered by leases meeting the requirements of subsection

34

1 (a) of section 6 of this Act. The bidding shall be by sealed
2 bids and, at the discretion of the Secretary, shall be either
3 (1) on the basis of a cash bonus bid with a royalty fixed by
4 the Secretary at not less than $12\frac{1}{2}$ per centum in amount or
5 value of the production saved, removed, or sold, (2) on the
6 basis of a cash bonus bid with a fixed share of the net profits
7 derived from operation of the tract of no less than 30 per
8 centum reserved to the United States, or (3) on the basis
9 of a fixed cash bonus with the net profit share reserved to the
10 United States as the bid variable. The United States net
11 profit share shall be calculated on the basis of the value of
12 the production saved, removed, or sold, less those capital and
13 operating costs directly assignable to the development and
14 operation (but not acquisition) of each individual oil and
15 gas lease issued under this Act to the lessee under a net profit
16 sharing arrangement. No capital or operating charges for
17 materials or labor services not actually used on an area
18 leased for oil or gas under this Act under a net profit-sharing
19 arrangement; allocation of income taxes; or expenditure for
20 materials or labor services used prior to lease acquisition
21 shall be permitted as a deduction in the calculation of net
22 income. The Secretary shall by regulation establish account-
23 ing procedures and standards to govern the calculation of
24 net profits. In the event of any dispute between the United
25 States and a lessee concerning the calculation of the net

1 profits, the burden of proof shall be on the lessee. That part
2 of the net profit share due the United States which is attrib-
3 utable to oil production may be taken in kind in the form
4 of oil and disposed of as provided in subsection (k) of this
5 section. That part of the net profit share due in kind shall
6 be determined by dividing the net profit due the United
7 States attributable to the product or products taken in kind
8 by the fair market value at the wellhead of the oil and/or
9 gas (as the case may be) saved, removed, or sold. In
10 determining the attribution of profits as between oil and gas,
11 costs shall be allocated proportionately to the value of their
12 respective shares of production.

13 “(b) An oil and gas lease issued by the Secretary
14 pursuant to this section shall (1) cover a compact area
15 not exceeding five thousand seven hundred and sixty acres,
16 as the Secretary may determine, (2) be for a period of
17 (i) in five years or (ii) for up to ten years where the Sec-
18 retary deems such longer period necessary to encourage ex-
19 ploration and development in areas of unusually deep water
20 or adverse weather conditions, and as long thereafter as
21 oil or gas may be produced from the area in paying quan-
22 tities, or drilling or well reworking operations as approved
23 by the Secretary are conducted thereon, and (3) contain
24 such rental provisions and such other terms and provisions

1 as the Secretary may prescribe at the time of offering the
2 area for lease.”.

3 DISPOSITION OF FEDERAL ROYALTY OIL

4 SEC. 204. Section 8 of the Outer Continental Shelf
5 Lands Act as amended by this Act is further amended by
6 adding a new subsection (k) to read as follows:

7 “(k) Upon commencement of production of oil from
8 any lease, issued after the effective date of this subsection,
9 the Secretary shall offer to the public and sell by competi-
10 tive bidding for not less than its fair market value, in such
11 amounts and for such terms as he determines, that propor-
12 tion of the oil produced from said lease which is due to the
13 United States as royalty or net profit share oil. The Secre-
14 tary shall limit participation in such sales where he finds
15 such limitation necessary to assure adequate supplies of oil
16 at equitable prices to independent refiners. In the event that
17 the Secretary limits participation in such sales, he shall
18 sell such oil at an equitable price. The lessee shall take any
19 such royalty oil for which no acceptable bids are received and
20 shall pay to the United States a cash royalty equal to its
21 fair market value, but in no event shall such royalty be less
22 than the highest bid.”.

1 ANNUAL REPORT

2 SEC. 205. Section 15 of the Outer Continental Shelf
3 Lands Act is amended to read as follows:

4 "ANNUAL REPORT BY SECRETARY TO CONGRESS

5 "SEC. 15. (a) Within six months after the end of each
6 fiscal year, the Secretary shall submit to the President of the
7 Senate and the Speaker of the House of Representatives
8 a report on the leasing and production program in the Outer
9 Continental Shelf during such fiscal year, including a detail-
10 ing of all moneys received and expended, and of all leasing,
11 development, and production activities; a summary of man-
12 agement, supervision, and enforcement activities; a summary
13 of grants made from the Coastal State Fund; and recom-
14 mendations to the Congress for improvements in manage-
15 ment, safety and amount of production in leasing and
16 operations in the Outer Continental Shelf and for resolution
17 of jurisdictional conflicts or ambiguities.

18 "(b) Section 313 (a) of the Coastal Zone Management
19 Act of 1972 (86 Stat. 1280) is amended by striking the
20 word 'and' after the word 'priority' in subsection (8);
21 renumbering existing subsection (9) as subsection (10);
22 and inserting the following new subsection (9): 'an assess-

1 ment of the onshore social, economic, and environmental
2 impacts in those coastal areas affected by Outer Continental
3 Shelf oil and gas exploration and exploitation; and'.”.

4 INSURING MAXIMUM PRODUCTION FROM OIL AND GAS
5 LEASES

6 SEC. 206. Section 5 of the Outer Continental Shelf
7 Lands Act is amended by adding the following new sub-
8 sections:

9 “Insuring Maximum Production From Oil and Gas Leases

10 “(d) (1) After enactment of this section no oil and
11 gas lease may be issued pursuant to this Act unless the lease
12 requires that development be carried out in accordance with
13 a development plan which has been approved by the Sec-
14 retary, and provides that failure to comply with such devel-
15 opment plan will terminate the lease.

16 “(2) The development plan will set forth, in the degree
17 of detail established in regulations issued by the Secretary,
18 specific work to be performed, environmental protection and
19 health and safety standards to be met, and a time schedule
20 for performance. The development plan may apply to all
21 leases included within a production unit.

22 “(3) With respect to permits and leases outstanding on
23 the date of enactment of this section, a proposed development
24 plan must be submitted to the Secretary within six months
25 after the date of enactment of this section. Failure to submit

1 a development plan or to comply with an approved devel-
2 opment plan shall terminate the permit or lease.

3 “(4) The Secretary may approve revisions of develop-
4 ment plans if he determines that revision will lead to greater
5 recovery of the oil and gas, improve the efficiency of the
6 recovery operation, or is the only means available to avoid
7 substantial economic hardship on the lessee or permittee.

8 “(e) After the date of enactment of this section, holders
9 of oil and gas leases issued pursuant to this Act shall not be
10 permitted to flare natural gas from any well unless the
11 Secretary finds that there is no practicable way to obtain
12 production or to conduct testing or workover operations
13 without flaring.”.

14 GEOLOGICAL AND GEOPHYSICAL EXPLORATION

15 SEC. 207. Section 11 of the Outer Continental Shelf
16 Lands Act is hereby amended to read as follows:

17 “SEC. 11. No person shall conduct any type of geo-
18 logical or geophysical explorations in the Outer Continental
19 Shelf without a permit issued by the Secretary. Each such
20 permit shall contain terms and conditions designed to (1)
21 prevent interference with actual operations under any lease
22 maintained or granted pursuant to this Act; (2) prevent
23 or minimize environmental damage; and (3) require the
24 permittee to furnish the Secretary with copies of all data
25 (including geological, geophysical, and geochemical data,

1 well logs, and drill core analyses) obtained during such
2 exploration. The Secretary shall maintain the confidentiality
3 of all data so obtained until after the areas involved have
4 been leased under this Act or until such time as he deter-
5 mines that making the data available to the public would not
6 damage the competitive position of the permittee, whichever
7 comes later.”.

8

ENFORCEMENT

9 SEC. 208. Subsection 5 (a) (2) of the Outer Continental
10 Shelf Lands Act is hereby amended by deleting the first
11 sentence.

12

LAWS APPLICABLE TO OUTER CONTINENTAL SHELF

13

14 SEC. 209. Paragraph (2) of subsection (a) of section
15 4 of the Outer Continental Shelf Lands Act is amended by
16 deleting the following words: “as of the effective date of
17 this Act”.

17

AUTHORITY OF GOVERNOR OF ADJACENT STATE TO

18

REQUEST POSTPONEMENT OF LEASE SALES

19

20 SEC. 210. Section 8 of the Outer Continental Shelf Lands
21 Act, as amended by this Act, is further amended by in-
22 serting at the end thereof the following:

22

23 “(1) (1) The Secretary shall give notice of the sale of
24 each lease pursuant to this Act to the Governor of the ad-
25 jacent State. At any time prior to such sale the Governor
may request the Secretary to postpone such sale for a period

1 of not to exceed three years following the date proposed in
2 such notice if he determines that such sale will result in ad-
3 verse environmental or economic impact or other damage to
4 the State or the residents thereof. In the event of any such
5 request, the Secretary shall postpone the sale until proceed-
6 ings under this subsection are completed.

7 “(2) The Secretary shall, not later than thirty days
8 from the receipt of such request:

9 “(A) grant the request for postponement;

10 “(B) provide for a shorter postponement than re-
11 quested provided that such period of time is adequate for
12 study and provision to ameliorate any adverse economic
13 or environmental effects or other damage and for con-
14 trolling secondary social or economic impact associated
15 with the development of Federal energy resources in, or
16 on, the Outer Continental Shelf adjacent to the sub-
17 merged lands of such State; or

18 “(C) deny the request for postponement if he finds
19 that such postponement would not be consistent with the
20 national policy as expressed in section 3 of this Act.

21 “(3) The Governor of a State aggrieved by the action
22 of the Secretary shall have ten days to appeal directly to
23 the National Coastal Resources Appeals Board established
24 pursuant to paragraph (4) of this subsection. Such Board
25 shall hear the appeal within fifteen days of its receipt and

1 shall render a final decision within forty-five days of such
2 hearing. The Board shall overrule the action of the Secretary
3 if it finds that (A) the State is not adequately protected
4 from adverse environmental and economic impacts and other
5 damages pursuant to subparagraph (3) of paragraph (2) of
6 this subsection; or (B) the request of the Governor for post-
7 ponement is consistent with the national policy as expressed
8 in section (3) of this Act.

9 “(4) (a) There is hereby established, in the Executive
10 Office of the President, the National Coastal Resources Ap-
11 peals Board (hereinafter called the ‘Board’), which shall be
12 composed of the following, or their designees—the Vice Pres-
13 ident, who shall be Chairman of the Board, the Secretary
14 of the Interior, the Administrator of the National Oceanic
15 and Atmospheric Administration, the Administrator of the
16 Environmental Protection Agency, and the Chairman of the
17 Council on Environmental Quality.

18 “(b) The Board shall—

19 “(1) transmit a written report to the appropriate
20 committees of Congress as to the basis for any decision
21 rendered; and

22 “(2) conduct such hearings pursuant to section 554
23 of title 5, United States Code.

24 “(5) For the purposes of this section, an aggrieved
25 State is defined as being one which has requested a postpone-

1 ment of a lease sale but has been denied such postponement
2 or provided a shorter period of time in which to ameliorate
3 adverse impacts associated with development of the Outer
4 Continental Shelf and the Governor has determined that such
5 period of time is not adequate.

6 “(6) This section shall take effect immediately upon
7 enactment of this Act.”.

8 TITLE III—MISCELLANEOUS PROVISIONS

9 PIPELINE SAFETY AND OPERATION

10 SEC. 301. (a) The Secretary of Transportation, in
11 cooperation with the Secretary of the Interior, is authorized
12 and directed to report to the Congress within sixty days
13 after enactment of this Act on appropriations and staffing
14 needed to monitor pipelines on Federal lands and the Outer
15 Continental Shelf so as to assure that they meet all appli-
16 cable standards for construction, operation, and maintenance.

17 (b) The Secretary of Transportation, in cooperation
18 with the Secretary of the Interior, is authorized and directed
19 to review all laws and regulations relating to the construc-
20 tion, operation, and maintenance of pipelines on Federal
21 lands and the Outer Continental Shelf and report to Con-
22 gress within one year after enactment of this Act on admin-
23 istrative changes needed and recommendations for new
24 legislation.

25 (c) One year after the date of the enactment of this Act,

1 the Interstate Commerce Commission and the Secretary of
2 Transportation shall submit to the President and the Con-
3 gress a report on the adequacy of existing transport facilities
4 and regulations to facilitate distribution of oil and gas re-
5 sources of the Outer Continental Shelf. The report shall in-
6 clude recommendations for changes in existing legislation or
7 regulations to facilitate such distribution.

8 REVIEW OF SHUT-IN OR FLARING WELLS

9 SEC. 302. (a) Within six months after enactment of
10 this Act the Secretary shall submit a report to Comptroller
11 General and the Congress listing all shut-in oil and gas wells
12 and wells flaring natural gas on leases issued under the Outer
13 Continental Shelf Lands Act. The report shall indicate why
14 each well is shut-in or flaring natural gas, and whether the
15 Secretary intends to require production or order cessation of
16 flaring.

17 (b) Within six months after receipt of the Secretary's
18 report, the Comptroller General shall review and evaluate
19 the reasons for allowing the wells to be shut-in or to flare
20 natural gas and submit his findings and recommendations to
21 the Congress.

22 RELATIONSHIP TO EXISTING LAW

23 SEC. 303. Except as otherwise expressly provided here-
24 in, nothing in this Act shall be construed to amend, modify,

1 or repeal any provision of the Coastal Zone Management Act
2 of 1972.

3 **SEVERABILITY**

4 SEC. 304. If any provision of this Act, or the applica-
5 tion of any such provision to any person or circumstance,
6 shall be held invalid, the remainder of this Act, or the appli-
7 cation of such provision to persons or circumstances other
8 than those as to which it is held invalid, shall not be affected
9 thereby.

94TH CONGRESS
1ST SESSION

S. 586

IN THE SENATE OF THE UNITED

FEBRUARY 5, 1975

Mr. HOLLINGS (for himself, Mr. KENNEDY, Mr. MATHIAS, Mr. TUNNEY, and Mr. WILLIAMS) introduced the following bill; which was read twice and referred to the Committee on Commerce

A BILL

To amend the Coastal Zone Management Act of 1972 to authorize and assist the coastal States to study, plan for, manage, and control the impact of energy resource development and production which affects the coastal zone, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That this Act may be cited as the "Coastal Zone Environ-
4 ment Act of 1975".

5 SEC. 2. Section 302 of the Coastal Zone Management
6 Act of 1972 (16 U.S.C. 1451) is amended by (1) deleting
7 "and" immediately after the semicolon in subsection (g)
8 thereof; (2) deleting the period at the end thereof and in-

1 serting in lieu thereof “; and ”; and (3) inserting at the end
2 thereof the following new subsection:

3 “(i) The national interest in adequate energy supplies
4 requires that adequate assistance be provided to the coastal
5 States to enable them to (1) study, plan for, manage, and
6 ameliorate any adverse consequences of energy facilities
7 siting and of energy resource development or production
8 which affects, directly or indirectly, the coastal zone and to
9 provide for needed public facilities and services associated
10 with such activity; (2) coordinate coastal zone planning,
11 policies, and programs in interstate and regional areas; and
12 (3) develop short-term research, study, and training capa-
13 bilities for the management of the coastal resources of the
14 States.”

15 SEC. 3. (a) Section 307 (c) (3) of the Coastal Zone
16 Management Act of 1972 (16 U.S.C. 1455 (c) (3)) is
17 amended by (1) deleting “license or permit” in the first sen-
18 tence thereof and inserting in lieu thereof “license, lease, or
19 permit”; (2) deleting “licensing or permitting” in the first
20 sentence thereof and inserting in lieu thereof “licensing, leas-
21 ing, or permitting”; and (3) deleting “license or permit” in
22 the last sentence thereof and inserting in lieu thereof “license,
23 lease, or permit”.

24 (b) Section 307 (c) of such Act is amended by adding
25 at the end thereof the following new paragraph:

1 “(4) Any applicant for a required license, lease, or
2 permit for development or production of energy resources or
3 for the siting of energy facilities to be located in or which
4 would directly or indirectly affect the coastal zone shall certify
5 that the proposed activity complies with, and will be con-
6 ducted in a manner consistent with any approved State
7 management program and in accordance with the procedures
8 for assuring the consistency of Federal activities with ap-
9 proved State management programs pursuant to paragraph
10 (3) of this section.”

11 SEC. 4. The Coastal Zone Management Act of 1972
12 (16 U.S.C. 1451 et seq.) is amended by (1) redesignating
13 sections 308 through 315 thereof as sections 311 through
14 318 thereof, respectively; and (2) inserting therein the
15 following three new sections:

16 “COASTAL IMPACT FUND

17 “SEC. 308. (a) There is established in the Treasury of
18 the United States the Coastal Impact Fund (hereinafter
19 referred to as the ‘Fund’). The Fund shall be administered
20 by the Secretary. The Secretary is authorized to make 100
21 per centum annual grants from the Fund to those coastal
22 States which the Secretary determines are likely to be sig-
23 nificantly and adversely impacted by the development or
24 production of energy resources or by the siting of energy
25 facilities to be located in or which would affect, directly or

1 indirectly, the coastal zone and which have complied with
2 the eligibility requirements established in subsection (b) of
3 this section. Such grants may be made for the purpose of
4 (1) studying, planning for, managing, controlling, and
5 ameliorating economic, environmental, and social conse-
6 quences likely to result from such development, production,
7 or siting; and (2) constructing public facilities and providing
8 public services made necessary by such development, produc-
9 tion, or siting and activities related thereto.

10 “(b) The Secretary shall, by regulations, in accordance
11 with section 553 of title 5, United States Code, establish
12 requirements for grant eligibility. Such regulations shall pro-
13 vide that a State is eligible for such grant upon a finding
14 by the Secretary that such State—

15 “(1) is receiving a program development grant
16 under section 305 of this Act and is making satisfactory
17 progress, as determined by the Secretary, toward the
18 development of a coastal zone management program
19 under section 306 of this Act, or is receiving an admin-
20 istrative grant under section 306 of this Act; and

21 “(2) has demonstrated, to the satisfaction of the
22 Secretary that such grants will be used for purposes
23 directly related to those specified in subsection (a) of
24 this section.

25 “(c) The Secretary shall coordinate grants made pur-

1 suant to this section with the coastal zone management pro-
2 gram developed or being developed by the coastal State re-
3 questing such grant, pursuant to section 305 or 306 of this
4 Act.

5 “(d) Such grants shall be allocated to the coastal States
6 in proportion to the anticipated or actual impacts upon such
7 States resulting from development or production of energy
8 resources or the siting of energy facilities to be located in or
9 which would affect, directly or indirectly, the coastal zone.

10 “(e) A coastal State may, for the purpose of carrying
11 out the provisions of this section and with the approval of the
12 Secretary, allocate a portion of any grant received under this
13 section to (1) any political subdivision of such State; (2)
14 an areawide agency designated under section 204 of the
15 Demonstration Cities and Metropolitan Development Act
16 of 1966; (3) a regional agency; or (4) an interstate agency.

17 “INTERSTATE COORDINATION GRANTS TO STATES

18 “SEC. 309. (a) The States are encouraged to give high
19 priority to coordinating State coastal zone planning, policies,
20 and programs in contiguous interstate areas and to study,
21 plan, or implement unified coastal zone policies in such areas.
22 The States may conduct such coordination, study, planning,
23 or implementation through interstate agreement or com-
24 pacts. The authorization of Congress is hereby given to two
25 or more States to negotiate and enter into interstate agree-

1 ments or compacts, not in conflict with any law or treaty
2 of the United States, upon such terms and conditions, includ-
3 ing the establishment of such public agencies, entities, or au-
4 thorities as are reasonable or appropriate, for the purpose of
5 said coordination, study, planning, or implementation: *Pro-*
6 *vided,* That such agreements or compacts shall provide an
7 opportunity for participation, for coordination purposes,
8 by Federal and local governments and agencies as well as
9 property owners, users of the land, and the public. Such
10 agreement or compact shall be binding or obligatory upon
11 any State or party thereto without further approval by
12 Congress.

13 “(b) The Secretary is authorized to make annual grants
14 to the coastal States, not to exceed 90 per centum of the
15 cost of such coordination, study, planning, or implementa-
16 tion, if the Secretary finds that each coastal State receiving
17 a grant under this section will use such grants for purposes
18 consistent with the provisions of sections 305 and 306 of this
19 Act.

20 “COASTAL RESEARCH ASSISTANCE

21 “SEC. 310. The Secretary is authorized to provide as-
22 sistance to enable the coastal States to develop a capability
23 for carrying out short-term research, studies, and training
24 required in support of coastal zone management. Such assist-
25 ance may be provided through (1) the payment of funds to

1 appropriate departments and agencies of the Federal Gov-
2 ernment as he shall determine; (2) the employment of pri-
3 vate individuals, partnerships, firms, corporations, or other
4 suitable institutions, under contracts entered into for such
5 purposes; or (3) annual grants to the coastal States not to
6 exceed 66⅔ per centum of the costs of such assistance. As-
7 sistance under this section is for the purpose of conducting or
8 encouraging research and studies into the problems of coastal
9 zone management and to provide for the training of persons
10 to carry on further research or to obtain employment in
11 private or public organizations which are concerned with
12 coastal zone management.”.

13 SEC. 5. Section 316 of the Coastal Zone Management
14 Act of 1972 (16 U.S.C. 1462), as redesignated by this Act,
15 is amended by (1) deleting “and” at the end of paragraph
16 (8) thereof immediately after the semicolon; (2) renumber-
17 ing paragraph “(9)” thereof as paragraph “(11)” thereof;
18 and (3) inserting the following two new paragraphs:

19 “(9) a general description of the economic, environ-
20 mental, and social impacts of the development or pro-
21 duction of energy resources or the siting of energy facili-
22 ties affecting the coastal zone;

23 “(10) a description and evaluation of interstate and
24 regional planning mechanisms developed by the coastal
25 States; and”.

1 SEC. 6. (a) Section 305 (h) of the Coastal Zone Man-
2 agement Act of 1972 (16 U.S.C. 1454 (h)) is amended by
3 deleting "1977" and by inserting in lieu thereof "1980".

4 (b) Section 318 (a) of such Act (16 U.S.C. 1464 (a)),
5 as redesignated by this Act, is amended by (1) deleting
6 "three" in paragraph (1) thereof and inserting in lieu there-
7 of "four"; (2) deleting "1977" in paragraph (2) thereof
8 and inserting in lieu thereof "1980"; (3) deleting "and"
9 after the semicolon in paragraph (2) thereof; (4) redesignig-
10 nating paragraph "(3)" thereof as paragraph (6) thereof;
11 (5) deleting "312" therein and inserting in lieu thereof
12 "315"; and (6) inserting therein the following three new
13 paragraphs:

14 "(3) a sum not to exceed \$200,000,000 for the
15 fiscal year ending June 30, 1976, and for each of the
16 four succeeding fiscal years, to the Coastal Impact
17 Fund for grants pursuant to the provisions of section
18 308, to remain available until expended;

19 "(4) such sums, not to exceed \$5,000,000 for the
20 fiscal year ending September 30, 1976, and for each of
21 the three succeeding fiscal years, as may be necessary
22 for grants under section 309, to remain available until
23 expended;

24 "(5) such sums, not to exceed \$5,000,000 for the
25 fiscal year ending September 30, 1976, and for each of

9

1 the three succeeding fiscal years, as may be necessary,
2 for assistance under section 310, to remain available until
3 expended; and”.

4 (c) Section 318 (b) of such Act is amended by deleting
5 “four” and inserting in lieu thereof “seven”.

6 SEC. 7. (a) Section 302 (e) of the Coastal Zone Man-
7 agement Act of 1972 (16 U.S.C. 1451 (e)) is amended by
8 inserting “ecological,” immediately after “recreational.”.

9 (b) Section 304 of such Act (16 U.S.C. 1453) is
10 amended by (1) inserting in subsection (a) thereof “islands”
11 immediately after “and includes”; (2) deleting in subsection
12 (e) thereof “and” after “transitional areas,” and inserting
13 “and islands” after “uplands,”; and (3) adding at the end
14 thereof the following new subsection:

15 - “(j) ‘Beach’ means the area defined by the coastal State
16 under paragraph (7) of subsection (b) of section 305.”

17 (c) Section 305 (b) of such Act (16 U.S.C. 1454 (b))
18 is amended (1) by deleting the period at the end thereof
19 and inserting in lieu thereof a semicolon; and by adding at
20 the end thereof the following new paragraph:

21 “(7) a general plan for the protection of access to
22 public beaches and other coastal areas of environmental,
23 recreational, historical, esthetic, ecological, and cultural
24 value. Such plan shall include a definition of the term
25 ‘beach’.”.

10

1 (d) Section 306 (c) (9) of such Act (16 U.S.C. 1461),
2 as redesignated by this Act, is amended by (1) inserting
3 after “, Beaches and Islands” after “Estuarine Sanctuaries”
4 in the title thereof; (2) deleting the period at the end of the
5 first sentence thereof and inserting in lieu thereof “, and
6 grants of up to 50 per centum of the costs of acquisition of
7 lands to provide for protection of and access to public beaches
8 and preservation of islands.”.

9 SEC. 8. Section 318 (a) (6) of such Act (16 U.S.C.
10 1464 (a) (6)), as redesignated by this Act, is amended by
11 inserting “and \$50,000,000 for each of the fiscal years 1975
12 through 1980,” after “June 30, 1974,” and before “as may
13 be necessary,”.

14 DEFINITIONS

15 SEC. 9. Section 304 of the Coastal Zone Management
16 Act of 1972 (16 U.S.C. 1451) is amended by inserting
17 after existing subsection (1) the following four new
18 subsections:

19 “(j) ‘energy resources’ means petroleum crude oil,
20 petroleum products, coal, natural gas, or any other
21 substance used primarily for its energy content;

22 “(k) ‘development and production’ means the leas-
23 ing of, exploration for, drilling for, removal, extraction,
24 exploitation, or treatment, transportation and storage
25 of, energy resources;

11

1 “(l) ‘energy facilities’ means electric generating
2 plants, including hydroelectric facilities licensed by the
3 Federal Power Commission; petroleum refineries or
4 petrochemical plants; synthetic gasification plants,
5 liquefaction and gasification plants, and liquefied nat-
6 ural gas conversion facilities providing fuel for interstate
7 use; petroleum loading or transfer facilities; and all
8 transmission, pipeline, and storage facilities associated
9 with the above facilities;

10 “(m) ‘public services and facilities’ means those
11 services or facilities financed in part or in whole by local
12 or State governments which may be required either
13 directly or indirectly by the development or production
14 of energy resources or the siting of energy facilities.
15 Such services and facilities include, but are not limited
16 to, highways, secondary roads, sewer and water facili-
17 ties, schools, hospitals, fire and police protection and
18 related facilities, and such other social and governmental
19 services as necessary to support increased population
20 and industrial development.”

94TH CONGRESS
1ST SESSION

S. 740

IN THE SENATE OF THE UNITED STATES

FEBRUARY 18, 1975

Mr. JACKSON (for himself, Mr. MAGNUSON, Mr. BAYH, Mr. LEAHY, and Mr. STEVENSON) introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

A BILL

To promote the general welfare by establishing a National Energy Production Board to assure early development of energy resources on the public domain and on other Federal lands and on the Outer Continental Shelf in order to overcome the dependence of the United States on foreign nations for energy supplies which are essential to national security, commerce, and a full-employment economy.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That this Act may be cited as the "National Energy Produc-
4 tion Board Act of 1975".

5 SEC. 2. FINDINGS.—The Congress finds and declares
6 that:

1 (a) It is the policy and the goal of the United States to
2 overcome as rapidly as possible the dependence of the United
3 States on foreign sources of energy.

4 (b) The achievement of this goal is essential to insure
5 the independence of our foreign policy, to improve our
6 balance-of-payments equilibrium, and to maintain national
7 security.

8 (c) With proper planning this goal can be achieved
9 without damaging the quality of the environment or impair-
10 ing the quality of life of the American people.

11 (d) The public domain, other Federal lands, and the
12 Outer Continental Shelf contain enormous energy resources
13 of coal, oil, natural gas, oil shale, geothermal, and uranium
14 which have not been adequately explored or developed.

15 (e) Programs to explore for and develop Federal en-
16 ergy resources and to provide the essential systems to trans-
17 port energy from producing areas to consuming markets
18 can stimulate the economy, help overcome unemployment,
19 and provide meaningful new employment opportunities in
20 public and private sectors.

21 (f) To the extent that existing energy resource and
22 development programs and the efforts of the private sector
23 to develop federally owned energy resources fall short of
24 achieving desired levels of domestic self-sufficiency the Fed-
25 eral Government should undertake innovative direct and

1 indirect actions to increase available domestic energy
2 supplies.

3 (g) To best achieve the objective of greater domestic
4 self-sufficiency and to assure a maximum national effort to
5 bring the Nation's domestic energy resources into balance
6 with demand, it is necessary to accelerate conservation
7 efforts and to establish a Federal authority empowered to
8 define and propose to the Congress specific action programs
9 to utilize all of the resources of the private and public sectors
10 to increase domestic energy supply, to monitor domestic
11 energy production, and to identify significant constraints
12 on increasing domestic energy production.

13 SEC. 3. PURPOSE.—It is the purpose of this Act—

14 (a) to assure that the resources of private enter-
15 prise and the Federal Government, including the tech-
16 nical and managerial expertise of all relevant Federal
17 agencies are effectively committed to maximizing domes-
18 tic energy exploration, development, and production;

19 (b) to stimulate the economy and to create needed
20 employment through a vigorous program of direct and
21 indirect Federal involvement to supplement private
22 sector efforts in increasing domestic energy supply and in
23 improving energy transportation systems; and

24 (c) to enhance competition in the energy industry
25 by assisting small independent companies to engage in

1. exploration and production for oil and gas in conjunc-
2. tion with the Federal Government on the Outer Con-
3. tinental Shelf and on the public domain and Federal
4. lands in Alaska.

5. SEC. 4. DEFINITIONS.—As used in this Act, the term—

6. (a) “Board” means the National Energy Produc-
7. tion Board;

8. (b) “Chairman” means the Chairman of the Board;

9. (c) “public domain and other Federal lands” means
10. all lands, including mineral interests, owned by the
11. United States without regard to how the United States
12. acquired ownership thereof and without regard to the
13. agency having responsibility for management thereof,
14. except—

15. (1) Indian lands;

16. (2) Outer Continental Shelf lands; and

17. (3) Components of the National Park, Wilder-
18. ness Preservation, Wild and Scenic Rivers, and
19. Trails Systems; rivers being studied as potential
20. additions to the National Wild and Scenic Rivers
21. System under or pursuant to section 5(a) of the
22. Wild and Scenic Rivers Act (82 U.S.C. 906), road-
23. less or other de facto wilderness areas being studied
24. to determine their suitability or nonsuitability for
25. preservation as wilderness under or pursuant to the

5

1 Wilderness Act (78 Stat. 890) or the Act of Jan-
2 uary 3, 1975 (88 Stat. 2096), and rivers or areas
3 proposed by the President for inclusion in the Na-
4 tional Wild and Scenic Rivers System or National
5 Wilderness Preservation System; and National Rec-
6 reation Areas designated by Acts of Congress;

7 (4) Naval Petroleum Reserves;

8 (d) "Fund" means the National Energy Production
9 Trust Fund;

10 (e) "Indian lands" means all lands, including min-
11 eral interests, within the exterior boundaries of any In-
12 dian reservation notwithstanding the issuance of any
13 patent, and including rights-of-way, and all lands held
14 in trust for or supervised by an Indian tribe;

15 (f) "Indian tribe" means any Indian tribe, band,
16 group, or community having a governing body recog-
17 nized by the Secretary of the Interior;

18 (g) "Member" means a member of the Board other
19 than the Chairman;

20 (h) "Outer Continental Shelf lands" means the
21 Outer Continental Shelf as defined in the Outer Conti-
22 nental Shelf Lands Act (67 Stat. 462); and

23 (i) "Naval Petroleum Reserves" means the Naval
24 Petroleum Reserve Numbered 1 (Elk Hills), located in
25 Kern County, California, established by Executive Order

6

1 of the President of September 2, 1912; Naval Petroleum
2 Reserve Numbered 2 (Buena Vista Hills), located in
3 Kern County, California, established by Executive order
4 of the President of December 31, 1915; Naval Petro-
5 leum Reserve Numbered 3 (Teapot Dome), located in
6 Wyoming, established by Executive order of the Presi-
7 dent of December 13, 1912; and Naval Petroleum Re-
8 serve Numbered 4, Alaska, on the north slope of the
9 Brooks Range, established by Executive order of the
10 President of February 27, 1923.

11 (j) "State" means any State of the United States,
12 the District of Columbia, the Commonwealth of Puerto
13 Rico, the Virgin Islands, Guam, American Samoa, the
14 Canal Zone, and the Trust Territory of the Pacific
15 Islands.

16 **TITLE I—NATIONAL ENERGY PRODUCTION**
17 **BOARD**

18 **SEC. 101. ESTABLISHMENT.**—(a) There is hereby es-
19 tablished a special executive agency to be known as the
20 National Energy Production Board (hereinafter in this Act
21 referred to as the "Board").

22 (b) The Board shall consist of a Chairman and four
23 members appointed by the President, by and with the advice
24 and consent of the Senate. The Chairman and the members
25 of the Board shall be persons who, as a result of their train-

1 ing, experience, and attainments in academia, industry, com-
2 merce, and/or government, are exceptionally well qualified
3 to formulate, recommend, carry out, and monitor plans and
4 programs to accelerate and increase the exploration for and
5 the development and production of the domestic energy re-
6 sources of the Federal lands and the Outer Continental Shelf,
7 on an urgent basis, and in keeping with the Nation's environ-
8 mental goals and in full recognition of the important respon-
9 sibilities of affected State governments. Appointments of the
10 Chairman and members pursuant to this subsection shall be
11 made in such a manner that not more than three members of
12 the Board including the Chairman shall be members of the
13 same political party. The Chairman and each member shall
14 serve for a term of five years, except that of the Chairman
15 and members first appointed to the Board; one shall serve
16 for one year, one for two years, one for three years, one for
17 four years, and one for five years, to be designated by the
18 President at the time of appointment.

19 (c) The Chairman of the Board shall receive compensa-
20 tion at the rate prescribed for offices and positions at level I
21 of the Executive Schedule (5 U.S.C. 5312). The members
22 of the Board shall receive compensation at the rate prescribed
23 for offices and positions at level II of the Executive Schedule
24 (5 U.S.C. 5313). The Board shall be administered under

1 the supervision and direction of the Chairman. Neither the
2 Chairman nor any member of the Board shall—

3 (1) engage in any other employment or hold any
4 other position in the executive branch during the period
5 of his appointment;

6 (2) have any financial interest or relationship, di-
7 rect or indirect, with any person engaged in the explora-
8 tion, production, processing, transportation, distribution,
9 or marketing of coal, uranium, natural gas, crude oil,
10 or petroleum products;

11 (3) after his service on the Board has ended, repre-
12 sent anyone other than the United States in connection
13 with a matter in which the Board is a party or has an
14 interest and in which he participated personally and sub-
15 stantially for the Board; or

16 (4) receive any emoluments, salary, or supple-
17 mentation of his Government salary, from a private
18 source as compensation for his services to the Board.

19 **SEC. 102. VACANCIES.**—Vacancies in the membership
20 of the Board shall not affect the power of the remaining
21 members to execute the functions of the Board and shall be
22 filled in the same manner as in the case of original appoint-
23 ment.

24 **SEC. 103. VICE CHAIRMAN.**—The Board shall select
25 a Vice Chairman from among its members. The Vice Chair-

1 man shall act in the place and stead of the Chairman in the
2 absence of the Chairman.

3 **SEC. 104. GENERAL COUNSEL.**—There shall be a Gen-
4 eral Counsel to the Board who shall be appointed by the
5 President, by and with the advice and consent of the Senate,
6 and who shall receive compensation at the rate prescribed
7 for offices and positions at level III of the Executive Schedule
8 (5 U.S.C. 5314).

9 **SEC. 105. MEETINGS AND ORGANIZATION.**—(a) The
10 Board is authorized to sit and act at such places and times
11 as it may determine, and upon a vote of a majority of its
12 members, to require by subpoena or otherwise the attendance
13 of such witnesses and the production of such books, papers,
14 and documents, to administer such oaths and affirmations, to
15 take such testimony, to procure such printing and binding,
16 and to make such expenditures, as it deems advisable. The
17 Board may make such rules respecting its organization and
18 procedures as it deems necessary, except that no recommen-
19 dation shall be reported from the Board without an opportu-
20 nity for dissenting members to present their views. Subpenas
21 may be issued over the signature of the Chairman of the
22 Board, or of any voting member designated by him or by the
23 Board, and may be served by such person or persons as may
24 be designated by such Chairman or member. The Chairman

1 of the Board or any member thereof may administer oaths or
2 affirmations to witnesses.

3 (b) The Chairman may appoint, with the approval
4 of the Board, an executive director who shall exercise such
5 powers and duties as may be delegated to him by the
6 Board. The executive director shall receive basic pay at
7 the rate provided for level III of the Executive Schedule
8 (5 U.S.C. 5314).

9 SEC. 106. POWER AND AUTHORITY.—(a) The Board
10 shall have the authority, subject to the provisions of this
11 Act and, within the limits of available appropriations, to
12 do all things necessary to carry out the purposes of this Act,
13 including the authority to—

14 (1) make full use of competent personnel and
15 organizations outside the Board, public or private, and
16 form advisory committees, special ad hoc interagency
17 task forces, and make other personnel arrangements in
18 accord with Federal law, as the Board determines to be
19 appropriate;

20 (2) enter into contracts or other arrangements as
21 may be necessary for the conduct of the work of the
22 Board with any agency or instrumentality of the United
23 States, with any State, territory, or possession or any
24 political subdivision thereof, or with any person, firm,
25 association, corporation, or educational institution, with

1 or without reimbursement, with or without performance
2 or other bonds, and with or without regard to section 5
3 of title 41, United States Code;

4 (3) make advance, progress, and other payments
5 which relate to the functions of the Board without regard
6 to the provisions of section 529 of title 31, United States
7 Code;

8 (4) accept and utilize the services of voluntary
9 and uncompensated personnel necessary for the con-
10 duct of the work of the Board and provide transporta-
11 tion and subsistence as authorized by section 5703 of
12 title 5, United States Code, for persons serving without
13 compensation;

14 (5) acquire by purchase, lease, loan, or gift, and
15 hold and dispose of by sale, lease, or loan, real and per-
16 sonal property of all kinds necessary for or resulting
17 from the exercise of authority granted by this Act; and

18 (6) prescribe such rules and regulations as it deems
19 necessary governing the operation and organization of
20 the Board.

21 (b) Contractors and other parties entering into con-
22 tracts and other arrangements under this section which in-
23 volve costs to the Government shall maintain such books and
24 related records as will facilitate an effective audit of the
25 execution of such contracts or arrangements in such detail

1 and in such manner as shall be prescribed by the Board,
2 and such books and records (and related documents and
3 papers) shall be available to the Board and the Comp-
4 troller General of the United States, or any of their duly
5 authorized representatives, for the purpose of such audit
6 and examination.

7 (c) The Board is authorized to secure directly from any
8 executive department or agency information, suggestions,
9 estimates, statistics, and technical assistance for the purpose
10 of carrying out its functions under this Act. Each such execu-
11 tive department or agency shall furnish the information, sug-
12 gestions, estimates, statistics, and technical assistance directly
13 to the Board upon its request.

14 (d) On request of the Board, the head of any execu-
15 tive department or agency may detail, with or without reim-
16 bursement, any of its personnel to assist the Board in carry-
17 ing out its functions under this section.

18 (e) The Chairman shall, in accordance with such poli-
19 cies as the Board shall prescribe, appoint and fix the com-
20 pensation of such personnel as may be necessary to carry
21 out the provisions of this Act, and obtain services of experts
22 and consultants in accordance with section 3109 of title 5,
23 United States Code.

24 TITLE II—DUTIES AND RESPONSIBILITIES

25 SEC. 201. GENERAL DUTIES.—(a) In addition to

1 the specific duties assigned to the Board in section 202 of
2 this title and in titles III and IV of this Act the Board
3 is authorized and directed to review, monitor, and period-
4 ically report to the Congress on—

5 (1) the current status of all activities and programs
6 being conducted by the Board and all other agencies
7 and departments of the Federal Government to increase
8 the production of coal, oil, natural gas, and other energy
9 resources from the public domain; and other Federal
10 lands, and the Outer Continental Shelf;

11 (2) the current status of all significant activities
12 and programs being conducted by private enterprise and
13 non-Federal agencies to increase the production of coal,
14 oil, natural gas, and other energy resources from sources
15 within the United States;

16 (3) the current status of all significant activities
17 and programs being conducted outside the United States
18 to increase the production of coal, oil, and natural gas
19 which may influence (A) the availability of energy
20 supplies for the United States or (B) the availability
21 of personnel, material, and equipment, including but
22 not limited to drilling platforms and rigs, for the
23 exploration, development, and production of domestic
24 energy resources;

25 (4) the availability of essential materials, equip-

1 ment, supplies, and trained manpower in the private
2 sector to achieve maximum production from domestic
3 energy resources in a manner that is compatible with
4 environmental standards and other resource demands;
5 and

6 (5) any significant delays in domestic energy ex-
7 ploration and production programs which are exclusively
8 the result of regulatory delay or procedural imped-
9 iments at the Federal, State, or local level.

10 (b) The reports to the Congress required by this sec-
11 tion shall be transmitted quarterly.

12 **SEC. 202. OIL AND GAS EXPLORATION PROGRAM.—**

13 (a) The Board is authorized and directed to prepare and
14 carry out a Federal oil and gas exploration program. The
15 exploration program shall supplement the activities of the
16 private sector and shall provide for an immediate com-
17 mencement of the and comprehensive exploration of the
18 public domain and Federal lands of the United States and
19 the Outer Continental Shelf to obtain sufficient data and
20 information to evaluate the extent, location, and potential
21 value for development of the oil and gas resources of said
22 lands. The program shall be designed to obtained the
23 resource information necessary for determining the quanti-
24 ties of oil and gas present, the geographical extent of any
25 field, and estimates of the recoverable reserves in order to—

1 (1) prepare the Federal oil and gas production plan
2 called for by section 404 of this Act;

3 (2) improve the information regarding the value of
4 public resources and revenues which should be antici-
5 pated from development;

6 (3) increase competition among producers of oil and
7 gas by providing data and information to all potential
8 developers; and

9 (4) provide the public with information respecting
10 the size of the public resources, the cost of developing
11 specific resources for commercial use, and the value of
12 such resources.

13 (b) In carrying out the exploration program the Board
14 is authorized and directed to—

15 (1) conduct or contract for seismic, geomagnetic,
16 gravitational, geophysical, or geochemical surveys, or
17 stratigraphic drilling, or to purchase or contract for the
18 results of such exploratory activities from commercial
19 sources;

20 (2) conduct or contract for such exploratory drilling
21 as is necessary to indicate the probable extent of the
22 resources and obtain sufficient information concerning
23 geological factors that may affect the development of the
24 resources;

25 (3) prepare and publish a projected schedule of

1 exploratory activities and identification of the areas to
2 be explored;

3 (4) consult with affected State and local govern-
4 ments including coordination with coastal management
5 programs being developed by any coastal State for
6 approval pursuant to section 305 of the Coastal Zone
7 Management Act of 1972 (86 Stat. 1280; 16 U.S.C.
8 1451 et seq.) and the coastal zone management pro-
9 gram of any State which has been approved pursuant to
10 section 306 of that Act, with particular reference to
11 the anticipated location of required rights-of-way, trans-
12 portation, and other on-shore facilities required to im-
13 plement the program;

14 (5) prepare and publish estimates of the funds,
15 materials, and manpower required to carry out the
16 exploration program;

17 (6) prepare and publish assessments of the avail-
18 ability of the facilities, material, equipment, and man-
19 power required to carry out the exploration program;

20 (7) procure the necessary facilities, materials, and
21 equipment; and

22 (8) consult with the Administrator of the Environ-
23 mental Protection Agency before proceeding with any
24 exploration so that he can identify exceptional, unique,
25 or unusual conditions that may require special treatment

1 or precautions to protect the environment or insure safe
2 exploration activities.

3 TITLE III—PROGRAMS FOR CONGRESSIONAL
4 REVIEW WITH RIGHT OF DISAPPROVAL

5 SEC. 301. NAVAL PETROLEUM RESERVES DEVELOP-
6 MENT AND PRODUCTION PROGRAM.—(a) Subject to the
7 provisions of this Act the Board is authorized and directed
8 to prepare and carry out a Naval Petroleum Reserves De-
9 velopment and Production Program for Naval Petroleum
10 Reserves Numbered 1, 2, and 3 located in California and
11 Wyoming. The Naval Petroleum Reserves Development and
12 Production Program shall provide for the immediate de-
13 velopment of said reserves to a state of ready availability
14 and production for use to meet emergency needs of national
15 security for strategic oil storage, and critical civilian require-
16 ments. In carrying out the program the Board shall prepare
17 and publish a report specifying—

18 (1) a plan for implementing the Naval Petroleum
19 Reserves Development and Production Program, in-
20 cluding designation of the department, agency, or in-
21 strumentality of the Federal Government that will have
22 lead agency responsibility for execution of the program,
23 and provision for monitoring of the program by the
24 Board;

25 (2) the development and production facilities,

1 transportation facilities, storage facilities, materials and
2 equipment, including but not limited to drilling rigs,
3 piping, and other steel products, plant and equipment,
4 and the manpower required for the program;

5 (3) arrangements for procurement of necessary
6 development, production, transportation, and storage
7 facilities, plant, materials and equipment, including to
8 the extent required Federal or federally assisted pro-
9 curement of same;

10 (4) estimates of cost;

11 (5) arrangements for financing the program;

12 (6) anticipated location of required development,
13 production, right-of-way, transportation, storage, and
14 other facilities required to implement the program;

15 (7) the anticipated impact on the economic, social,
16 institutional structure of adjacent areas and communi-
17 ties affected by the program;

18 (8) the organization for management and control of
19 the program;

20 (9) procedures for consultation with affected State
21 and local governments; and

22 (10) any legal questions, complications or con-
23 flicts potentially engendered by the plan.

24 (b) The Board is directed to transmit the Naval Petro-
25 leum Reserves Development and Production program to the

1 Congress not later than ninety days after the effective date of
2 this section.

3 (c) Subject to the availability of funds under the author-
4 ization of appropriations contained in section 602 of this Act,
5 the Board may proceed with the implementation of the pro-
6 gram at the end of the first period of sixty calendar days
7 after the program has been submitted to both Houses of the
8 Congress. Each House shall have the opportunity to
9 disapprove of such program within sixty days of the receipt
10 of the proposal, pursuant to the procedures provided for in
11 sections 906 (a), (b), and (c), 908, 909, 910, 911, 912,
12 and 913 of title 5, United States Code, except that for the
13 purposes of this section any reference in such sections to "re-
14 organization plan" shall be deemed to be a reference to Naval
15 Petroleum Reserves Development and Production program.
16 If the program is disapproved by either House within the
17 sixty-day review period, no officer or agency shall have au-
18 thority to take the action proposed in the program.

19 SEC. 302. ALASKA NAVAL PETROLEUM RESERVE EX-
20 PLOURATION PROGRAM.—(a) Subject to the provisions of this
21 Act the Board is authorized and directed to prepare and
22 carry out a Naval Petroleum Reserve Numbered 4 Explora-
23 tion Program. The exploration program shall cover the
24 Naval Petroleum Reserve Numbered 4, in Alaska, estab-
25 lished by Executive order of the President of February 27,

1 1923, and shall provide for an immediate commencement of
2 the comprehensive exploration thereof to obtain sufficient
3 data and information to evaluate the extent, location, and
4 potential for development of the oil and gas resources of the
5 reserve. The program shall be designed to obtain the resource
6 information necessary for determining the quantities of oil
7 and gas present, the geographical extent of any field, and
8 estimates of its recoverable reserves in order to provide a
9 basis for—

10 (1) developing an oil and gas development plan;

11 (2) improving the information regarding the value
12 of public resources and revenues which should be antici-
13 pated from development;

14 (3) increasing competition among producers of oil
15 and gas by providing data and information to all poten-
16 tial developers; and

17 (4) providing the public with information respect-
18 ing the extent and anticipated value of public resources.

19 (b) The Board shall prepare and publish a Naval
20 Petroleum Reserve Numbered 4 Exploration Program report
21 which shall include:

22 (1) a plan to implement the Naval Petroleum Re-
23 serve Numbered 4 Exploration Program, including the
24 designation of the Federal department, agency, or instru-
25 mentality that will direct and supervise execution of the

1 program, and provision for monitoring of the program
2 by the Board;

3 (2) a plan for the conduct of geophysical surveys,
4 geochemical surveys, or stratigraphic drilling, or to
5 purchase the results of such exploratory activities from
6 commercial sources;

7 (3) a plan to conduct or contract for such explora-
8 tory drilling as necessary to prove the extent of the re-
9 sources and to obtain sufficient information concerning
10 the geology which may affect the development of the
11 resources;

12 (4) a projected schedule of exploratory activities
13 and identification of the areas to be explored;

14 (5) procedures for consultation with affected State
15 and local governments;

16 (6) estimates of the financial, material, and man-
17 power required to carry out the exploration program;

18 (7) assessment of the availability of the facilities,
19 material, equipment, and manpower required to carry
20 out the exploration program;

21 (8) arrangements for procurement of the necessary
22 facilities, materials, and equipment, including to the ex-
23 tent required Federal or federally assisted procurement
24 of same;

25 (9) anticipated location of required exploration

1 right-of-way, transportation, and other facilities required
2 to implement the program;
3 (10) the organization for management and control
4 of the program.

5 (c) The Board is directed to transmit the Naval Petro-
6 leum Reserve Number 4 exploration program to the Con-
7 gress not later than ninety days after the effective date of
8 this section.

9 (d) Subject to the availability of funds under the au-
10 thorization of appropriations contained in section 602 of this
11 Act, the Board may proceed with the implementation of the
12 program at the end of the first period of sixty calendar days
13 after the program has been submitted to both Houses of
14 the Congress. Each House shall have the opportunity to
15 disapprove of such program within sixty days of the receipt
16 of the proposal, pursuant to the procedures provided for in
17 sections 906 (a), (b), and (c), 908, 909, 910, 911, 912,
18 and 913 of title 5, United States Code, except that for the
19 purposes of this section any reference in such sections to
20 "reorganization plan" shall be deemed to be a reference to
21 Naval Petroleum Reserve Number 4 Exploration Program.
22 If the program is disapproved by either House within the
23 sixty-day review period, no officer or agency shall have
24 authority to take the action proposed in the program.

25 SEC. 303. FEDERAL FACILITIES ENERGY PROGRAM.—

1 (a) Subject to the provisions of this Act, the Board is
2 authorized and directed to prepare and carry out a Federal
3 Facilities Energy Program. The Federal Facilities Energy
4 Program shall provide for the utilization of existing idle,
5 underutilized, or surplus facilities, installations, properties,
6 and resources of the Federal Government to augment the
7 Nation's manufacturing and industrial capacity for the pro-
8 duction and fabrication of materials, equipment, and goods
9 essential for the conduct of an accelerated domestic energy
10 exploration, development, and production program. The
11 Board shall prepare and publish a report for the implemen-
12 tation of the Federal Facilities Energy Program which shall
13 include a timetable for its implementation and:

14 (1) an inventory of federally owned and federally
15 controlled industrial and manufacturing plants and instal-
16 lations, including but not limited to naval shipyards,
17 ship repair facilities, depots, arsenals, and other facilities
18 and installations of the Department of Defense and in-
19 dustrial and manufacturing facilities of other depart-
20 ments, agencies, and instrumentalities of the Federal
21 Government;

22 (2) an inventory and assessment of the capacity
23 of various departments, agencies, and instrumentalities
24 of the Federal Government, including but not limited to
25 the Corps of Engineers of the Department of the Army,

24

1 the Naval Material Command, Naval Engineering Com-
2 mand, and Naval Ordnance Command of the Depart-
3 ment of the Navy, the Bureau of Reclamation of the
4 Department of the Interior, and the General Services
5 Administration to participate in the management of
6 Federal energy exploration, development, and produc-
7 tion programs;

8 (3) the identification and designation of idle, under-
9 utilized, or surplus Federal facilities and installations
10 capable of, or capable of being adapted to, at reasonable
11 cost, the production of materials and equipment essen-
12 tial for the production of energy and fuels, including
13 but not limited to drilling platforms, drilling rigs, pipe
14 for drilling operations and pipelines, and mining and
15 transportation equipment, goods, and supplies;

16 (4) estimates of the cost of equipping, reequipping,
17 tooling, or retooling such facilities and installations for the
18 production of energy-related materials, goods, and equip-
19 ment;

20 (5) estimates of the availability of the manpower
21 required to staff such Federal installations and facilities;

22 (6) a plan for the conversion of designated appro-
23 priate Federal facilities and installations for production
24 of energy-related materials and equipment;

25 (7) a schedule for the conversion of designated

1 Federal facilities and installations for the production of
2 energy-related materials and equipment;

3 (8) arrangements for management and operation of
4 converted facilities and installations, including designa-
5 tion of the Federal department, agency, or instrumen-
6 tality to manage and supervise same;

7 (9) arrangements for leasing or contracting out
8 Federal facilities and installations for the production of
9 energy-related materials, equipment, and goods;

10 (10) arrangements for procurement of necessary
11 material, equipment, and supplies, including Federal or
12 federally assisted procurement of same;

13 (11) arrangements for consultation with private
14 industry and affected State and local government;

15 (12) anticipated impact on private industry, and
16 on the economic, social, institutional structure of affected
17 areas and communities; and

18 (13) arrangements for reversion or return of facil-
19 ities and installations to the Federal Government as
20 appropriate.

21 (b) The Board is directed to transmit the Federal
22 facilities energy program to the Congress not later than
23 ninety days after the effective date of this section.

24 (c) Subject to the availability of funds under the au-
25 thorization of appropriations contained in section 602 of this

1 Act, the Board may proceed with the implementation of the
2 program at the end of the first period of sixty calendar days
3 after the program has been submitted to both Houses of the
4 Congress. Each House shall have the opportunity to
5 disapprove of such program within sixty days of the receipt
6 of the proposal, pursuant to the procedures provided for in
7 sections 906 (a), (b), and (c), 908, 909, 910, 911, 912,
8 and 913 of title 5, United States Code, except that for the
9 purposes of this section any reference in such sections to
10 "reorganization plan" shall be deemed to be a reference
11 to the Federal Facilities Energy Program. If the program is
12 disapproved by either House within the sixty-day review
13 period, no officer or agency shall have authority to take the
14 action proposed in the program.

15 SEC. 304. EXPEDITING GOVERNMENT ACTION.—(a)
16 The Board is authorized and directed to review and evaluate
17 the procedures and methods of departments, agencies, inde-
18 pendent agencies, regulatory commissions, and other instru-
19 mentalities of the Federal Government with respect to
20 requests for Federal approval, certification, permits, or other
21 forms of Federal authorization for specific projects in the
22 public and private sectors for increasing the exploration, de-
23 velopment, production, and transportation of domestic coal,
24 oil, and natural gas. The review and evaluation required by
25 this subsection shall be designed to identify unreasonable

1 procedural delays and impediments resulting from Federal
2 procedures and requirements that significantly delay decision-
3 making and action on specific projects which are determined
4 to be needed for increasing domestic energy exploration,
5 development, and production.

6 (b) Based on the review and evaluation required by
7 subsection (a), the Board is authorized and directed to pro-
8 pose procedures to other instrumentalities of the Federal
9 Government which are designed to expedite Federal action
10 and overcome procedural delays and institutional impedi-
11 ments: *Provided*, That except as specifically provided for in
12 subsection (c), no provision of this subsection authorizes the
13 Board to propose for implementation any procedure which
14 is not permissible under existing law.

15 (c) (1) Whenever the Board determines that prompt
16 Government action respecting a specific activity or project
17 designed to increase the exploration, development, produc-
18 tion, or transport of domestic energy resources is of high
19 national priority, and is being unreasonably delayed because
20 of procedural problems or impediments in connection with
21 a Federal approval, certification, permit, or licensing process,
22 the Board may recommend an expedited procedure for con-
23 gressional review and approval in accordance with para-
24 graph (3): *Provided*, That the Board may not utilize this
25 subsection to change, amend, modify, or gain an exemption

1 from any substantive standard related to public health, safety,
2 or the quality of the environment: *Provided further*, That
3 use of this expedited procedure in connection with a specific
4 activity or project does not in any way change, amend, or
5 modify for future activities or projects any Federal approval,
6 certification, permit, or licensing process.

7 (2) Any Board recommendation for expedited pro-
8 cedure shall be in the form of an Expedited Energy Project
9 Procedure Report which shall—

10 (A) be limited to a specific activity or project such
11 as a pipeline, an energy facility, or other needed and
12 essential energy project;

13 (B) justify the need for the use of expedited
14 procedures;

15 (C) set forth timetables for action in specific cases
16 and programs;

17 (D) identify exceptions to any departmental and
18 agency review requirements and procedures;

19 (E) identify exceptions to any regulatory require-
20 ments and procedures; and

21 (F) specify proposed changes to expedite the ac-
22 tivity or project;

23 (3) The Expedited Energy Project Procedure Report
24 shall be transmitted to the Congress. The Expedited Energy
25 Project Procedure Report shall become law at the end of

1 the first period of sixty calendar days after said report has
2 been submitted to both Houses of the Congress. Each House
3 shall have the opportunity to disapprove such Expedited
4 Energy Project Procedure Report within sixty days of the
5 receipt of said report, pursuant to the procedures provided
6 in sections 906 (a), (b), and (c), 908, 909, 910, 911,
7 912, and 913 of title 5, United States Code, except that for
8 purposes of this section any reference in such sections to
9 “reorganization plan” shall be deemed to be a reference to
10 an “Expedited Energy Project Procedure Report”. If a pro-
11 posed Expedited Energy Project Procedure Report is dis-
12 approved by either House within the sixty-day review period,
13 no officer or agency shall have authority to take the action
14 proposed therein.

15 TITLE IV—PROGRAMS REQUIRING EXPRESS
16 LEGISLATIVE AUTHORIZATION

17 SEC. 401. GENERAL.—The Board is authorized and di-
18 rected to formulate, develop and recommend to the Con-
19 gress in the form of proposed legislation specific action
20 programs as set forth in this title to increase the production
21 of domestic energy resources and strengthen energy trans-
22 portation systems. Each proposed legislative action program
23 transmitted to the Congress pursuant to this title shall be
24 accompanied by a report which meets the requirements
25 of this Act and which provides background and analytical

1 information relevant to a reasoned decision on the proposed
2 legislative program by the Congress.

3 SEC. 402. COAL PRODUCTION.—The Board shall pre-
4 pare a Federal Coal Production Program. The Federal Coal
5 Production Program shall consist of a legislative recommen-
6 dation for the accelerated exploration, development and pro-
7 duction of coal under existing Federal leases and from the
8 public domain and Federal lands of the United States, a
9 timetable for the execution of such a program, and an
10 accompanying report which specifies in detail:

11 (a) the present and projected levels of domestic
12 coal production and the anticipated domestic demand
13 if the country converts all new and, where feasible,
14 existing electrical utilities and heavy industrial boilers
15 from the use of oil and natural gas to coal;

16 (b) the need, nature and extent of a direct Fed-
17 eral role in opening new mines, transportation systems
18 and otherwise engaging in activities to increase domestic
19 coal production;

20 (c) the location, type and extent of the recoverable
21 coal resources covered by the program;

22 (d) the adequacy and capacity of existing and
23 available facilities for production, transportation, and
24 processing the required coal;

25 (e) assessment of the need for new facilities re-

1 quired to extract, transport and process the required
2 coal;

3 (f) anticipated location of required production,
4 right-of-way, transportation and other facilities needed
5 to produce and transport the required coal; and

6 (g) procedures for consultation with affected
7 State and local governments.

8 SEC. 403. ENERGY TRANSPORTATION SYSTEMS.—(a)
9 The Board shall prepare a Federal Energy Transportation
10 System Improvement Program after consultation with the
11 United States Railway Association and the Department of
12 Transportation. The Federal energy transportation systems
13 improvement program shall consist of a legislative recom-
14 mendation for direct and indirect participation by the Federal
15 Government in programs to assure the development on an
16 urgent basis of new and the improvement of existing railroad
17 systems, coal slurry pipelines, oil and natural gas pipelines,
18 and other energy transportation systems necessary to assure
19 the timely, safe, and efficient movement of coal and other
20 fuels from mines and other production areas throughout
21 the Nation to electrical powerplants, industrial users, and
22 residential consumers.

23 (b) The Board's recommendations shall include a time-
24 table for the development of such transportation systems, and

1 an accompanying report which specifies in detail:

2 (1) an analysis and assessment of the present ca-
3 pacity and projected requirements for the Nation's rail-
4 roads and other energy transportation systems for the
5 transport of coal and other fuels from producing areas in
6 the Western States, Appalachia, and other areas to the
7 principal electric utility, industrial users, and other major
8 consuming markets throughout the Nation;

9 (2) deficiencies in the present railroad and other
10 energy transportation systems;

11 (3) the need, nature, and extent, if any, of a direct
12 Federal role in rebuilding railroad beds, improving and
13 developing new energy transportation systems, and
14 otherwise engaging in activities to facilitate the timely,
15 safe, and economical transport of domestic fuels;

16 (4) specific projects when needed for the improve-
17 ment, rehabilitation, or augmentation of existing rail-
18 road facilities, rights-of-way, rolling stock and opera-
19 tions required to assure the safe and efficient movement
20 of coal and other energy resources;

21 (5) specific projects for the establishment of new
22 railroad, pipeline, and other energy transportation sys-
23 tems;

24 (6) proposed arrangements with existing railroads
25 for the improvement and augmentation of their energy

1 transportation rights-of-way, facilities, and equipment;

2 (7) the location and extent of rights-of-way, facili-
3 ties, and equipment included in the program;

4 (8) proposals for the coordination of existing rail-
5 road and other transportation system operations in fur-
6 therance of the objectives of this Act;

7 (9) estimates of the new employment opportuni-
8 ties to be created under the program, including number,
9 location, and nature of same, and recommendations for
10 necessary retraining programs; and

11 (10) an estimate of the amount of steel and other
12 materials the Board's recommendations would require,
13 including estimates of whether such requirements would
14 exceed production capacity for steel and other materials
15 in light of other demands on such resources.

16 **SEC. 404. FEDERAL OIL AND GAS PRODUCTION PRO-**
17 **GRAM.—** (a) The Board shall prepare a Federal Oil and Gas
18 Production Program, which shall consist of a legislative rec-
19 ommendation and a plan for the accelerated development
20 and production of oil and natural gas from the public domain
21 and Federal lands of the United States, including the Outer
22 Continental Shelf, and timetables for the execution thereof.

23 (b) The Federal Oil and Gas Production Program
24 shall include, but need not be limited to—

1 (1) provision for the development and production
2 of oil and gas under the direct management, supervision,
3 and control of designated agencies of the Federal Gov-
4 ernment;

5 (2) provision for joint ventures between the Fed-
6 eral Government and private industry for the develop-
7 ment and production of oil and gas resources;

8 (3) provisions establishing preferences for small
9 business and incentives for new entries and for inde-
10 pendent oil producers to participate in joint ventures
11 and other arrangements for the development and pro-
12 duction of oil and gas resources;

13 (4) provisions, if necessary, for cost sharing and
14 other incentives to maximize the participation of private
15 enterprise in the development or production of oil and
16 gas resources;

17 (5) provisions for the expansion of employment
18 opportunities and estimates of the manpower required
19 for oil and gas development ventures;

20 (6) identification of the areas proposed to be devel-
21 oped or produced, including the reasons for the propo-
22 sal and the location of the resources in reference to
23 other active or potential development and production
24 activities nearby;

25 (7) estimates of the volume and the current market

1 value of the oil and gas based on estimates of the recov-
2 erable volume in the area proposed for development or
3 production;

4 (8) the cost of producing the recoverable oil and
5 gas under the proposed plan;

6 (9) the anticipated location of production units,
7 offshore and other support facilities, rights-of-way,
8 pipelines, and other infrastructure necessary to develop,
9 produce and transport the oil and gas produced;

10 (10) the capacity of existing onshore and other
11 facilities and infrastructure to handle the anticipated
12 production of oil and gas;

13 (11) assessment of the need for new facilities or
14 infrastructure that may be required to handle the an-
15 ticipated oil and gas production, or otherwise to support
16 operations within the development area; and

17 (12) where appropriate, a statement of the rela-
18 tionship of the projected development with coastal zone
19 management programs being developed by any coastal
20 State for approval pursuant to section 305 of the
21 Coastal Zone Management Act of 1972 (86 Stat. 1280;
22 16 U.S.C. 1451 et seq.) and the coastal zone manage-
23 ment program of any State which has been approved
24 pursuant to section 306 of that Act.

25 SEC. 405. TRANSMITTAL OF PROGRAMS FOR CONGRES-

1 SIONAL AUTHORIZATION.—(a) No part of the programs
2 authorized by this title shall be carried out until a report
3 containing a full and complete description of that part of
4 the program has been transmitted to the Congress, and the
5 execution of that part of the program has been expressly
6 authorized by legislation thereafter enacted by the Congress.

7 (b) The Federal Coal Production Program, Federal
8 Energy Transportation Improvement Program, and the Fed-
9 eral Oil and Gas Production Program and the Board's rec-
10 ommendations for legislation to implement said programs
11 shall be submitted to the President for transmittal to the
12 Congress not later than nine months after the effective date
13 of this section.

14 TITLE V—GUIDELINES AND ADMINISTRATION

15 SEC. 501. GUIDELINES, STANDARD, AND REPORT TO
16 ACCOMPANY PROPOSED ACTION PROGRAMS.—(a) Every
17 proposed action program to increase the production of
18 domestic energy resources which is developed by the Board
19 pursuant to titles II, III, and IV for transmittal to the Con-
20 gress shall be accompanied by an explanatory background
21 report.

22 (b) In developing action programs to increase domestic
23 energy exploration and production pursuant to titles II, III,
24 and IV the Board shall consider and evaluate the impact of
25 such proposed action programs on—

- 1 (1) attaining a greater degree of domestic energy
2 self-sufficiency;
- 3 (2) the quality of the environment and existing
4 Federal environmental guidelines and standards;
- 5 (3) the revenues to be received by the Federal
6 Government from the use and development of public
7 resources;
- 8 (4) employment, by industrial and trade sectors,
9 as well as on a National, regional, State, and local basis;
- 10 (5) the economic vitality of regional, State, and
11 local areas;
- 12 (6) competition in all sectors of the energy in-
13 dustry;
- 14 (7) small business;
- 15 (8) the fiscal integrity of State and local govern-
16 ments; and
- 17 (9) vital industrial sectors of the economy.
- 18 (e) The report required by this section shall—
- 19 (1) contain an evaluation of the impact of the
20 proposed program on the guidelines and standards set
21 forth in section 501 (b) ;
- 22 (2) contain a concise and accurate summary of the
23 comments, if any, of the entities identified for review and
24 comment in section 503 ;
- 25 (3) set forth in reasonable detail—

1 (A) a description of the actions proposed to
2 be taken;

3 (B) estimates of annual costs and revenues;

4 (C) proposed arrangements for organization
5 and financing; and

6 (D) other relevant information setting forth the
7 manner in which the program is proposed to be
8 carried out.

9 (E) exceptional, unique, or unusual condi-
10 tions that may require special treatment or pre-
11 cautions to protect the environment and insure safe
12 operation;

13 (F) the anticipated impact on the economic,
14 social, institutional structure of States and com-
15 munities affected by the program;

16 (G) an analysis of Federal statutes, regula-
17 tions, and authorities pertinent to the subject mat-
18 ter of the program and recommendations for the
19 maximum practicable utilization of departments,
20 agencies, and instrumentalities of the Federal Gov-
21 ernment, their authorities, personnel and other re-
22 sources, for the management and implementation
23 of the program;

24 (H) an analysis of pertinent statutes, regula-
25 tions, and authorities of State and local governments

1 affected by the program and recommendations for
2 arrangements with such governments for implemen-
3 tation of the program; and

4 (I) the recommended forms of Federal organi-
5 zation for the management, control and financing of
6 the program.

7 SEC. 502. FORMS OF FEDERAL INVOLVEMENT AND
8 FINANCIAL ASSISTANCE.—(a) Each proposed action pro-
9 gram to increase the production of domestic energy re-
10 sources developed by the Board pursuant to titles III and
11 IV of this Act may propose the utilization of any of the
12 forms of direct Federal involvement and financial assistance
13 set forth in subsection (b).

14 (b) In developing and recommending to the Congress
15 proposed action programs the Board shall recommend—

16 (1) the direct utilization of existing Federal
17 agencies, such as the Corps of Engineers, the Bureau
18 of Reclamation, the National Aeronautics and Space
19 Administration, the Department of Defense and other
20 agencies which have engineering, contract administra-
21 tion, and other skills and areas of expertise which are
22 underutilized and which could make an important con-
23 tribution in carrying out the purposes of this Act;

24 (2) the designation of Federal lead agency for the
25 conduct, supervision and implementation of the pro-
26 gram;

40

1 (3) the role to be played by private enterprise
2 and the nature of the relationship to and involvement
3 in the program; and

4 (4) the forms of financial assistance to be granted,
5 if any, and the terms and conditions thereof.

6 SEC. 503. REVIEW AND COMMENT.—(a) In order to
7 assure that proposed action programs to increase the produc-
8 tion of domestic energy resources reflect a full consideration
9 of the interests of other Federal agencies, and State and local
10 governments, a preliminary draft of the proposed action
11 program and accompanying report shall, prior to being trans-
12 mitted to Congress, be submitted by the Board for review
13 and comment to—

14 (1) the Energy Resources Council;

15 (2) the Governor of any State within which the
16 resource is to be developed is located;

17 (3) the Governor of each affected coastal State in
18 the case of proposed development on the Outer Con-
19 tinental Shelf; and

20 (4) the governing bodies of political subdivi-
21 sions within which the resource to be developed is
22 located or of adjacent areas in the case of the Outer
23 Continental Shelf.

24 (b) The Board shall establish procedures to insure that
25 a preliminary draft of the proposed action program and

1 accompanying report are publicly available for review and
2 comment by—

3 (1) organizations representative of private indus-
4 tries engaged in the exploration, development, produc-
5 tion, transportation, and marketing of fuels and energy;

6 (2) organizations representative of industrial users
7 of fuels and energy and to representatives of the electric
8 utility industry;

9 (3) labor organizations;

10 (4) organizations representative of the small busi-
11 ness community;

12 (5) organizations representative of environmental
13 groups;

14 (6) organizations representative of consumer in-
15 terests; and

16 (7) other interested organizations and members of
17 the public.

18 (c) In order to assure the timely submission of the pro-
19 posed action program to the Congress, the Board may pre-
20 scribe reasonable limitations on the time permitted for review
21 and comment: *Provided*, That no such time limitations shall
22 be less than thirty days.

23 TITLE VI—NATIONAL ENERGY PRODUCTION

24 TRUST FUND

25 SEC. 601. ESTABLISHMENT OF FUND.—To carry out

1 the provisions of this Act, there is hereby established in the
2 Treasury of the United States a special fund to be known as
3 the National Energy Production Trust Fund (hereafter re-
4 ferred to as the "Fund"). During the period commencing
5 July 1, 1975, and ending June 30, 1985, there shall be
6 covered into such Fund \$1,000,000,000 annually for fiscal
7 year 1976 and \$2,000,000,000 annually thereafter from
8 revenues due and payable to the United States under the
9 Outer Continental Shelf Lands Act (67 Stat. 462, 469), as
10 amended (43 U.S.C. 1338), which otherwise would be
11 credited to the miscellaneous receipts of the Treasury.

12 SEC. 602. APPROPRIATIONS AND USE OF REVENUES
13 IN THE FUND.—All revenues paid into the Fund shall be
14 used only to carry out the purposes of this Act. Revenues
15 covered into the Fund shall be available for expenditure only
16 when appropriated therefor by the Congress. Any revenues
17 not appropriated shall remain available in the Fund until
18 appropriated for said purposes: *Provided*, that appropria-
19 tions made pursuant to this paragraph may be made with-
20 out fiscal year limitation.

21 SEC. 603. BOARD'S AUTHORITY.—All revenues ap-
22 propriated from the Fund shall be available to the Board
23 for expenditure or transfer to other Federal agencies to
24 achieve the purposes of this Act.

1 TITLE VII—ADVISORY COMMITTEES AND
2 INTER-AGENCY COORDINATION

3 SEC. 701. SPECIAL ENERGY ACTION PROGRAM AD-
4 VISORY COMMITTEES.—(a) With respect to each domestic
5 energy production action program proposed by the Board,
6 the Board is authorized and directed to establish special
7 program advisory committees which shall consult with the
8 Board during the development of the program and shall
9 provide advice and informaation to the Board concerning
10 all aspects of the program, including the relationship of the
11 program to the interests represented by the members of such
12 special committees.

13 (b) The special program advisory committees shall
14 provide for the representation of the following interests and
15 such other interests as the Board may deem necessary or
16 desirable:

17 (1) State and local governments;

18 (2) representatives of affected elements of the en-
19 ergy industry;

20 (3) representatives of affected elements of the
21 transportation industry;

22 (4) representatives of affected elements of the
23 public utility industry;

24 (5) representatives of affected elements of industrial
25 energy users;

- 1 (6) representatives of labor;
- 2 (7) representatives of small business;
- 3 (8) representatives of environmental organizations;
- 4 **and**
- 5 (9) consumer representatives.

6 (c) The special program advisory committees authorized
7 by this section and such other advisory boards, committees,
8 and councils as may be established by the Board shall be sub-
9 ject to the provisions of the Federal Advisory Committee Act
10 (86 Stat. 770, title 5 App. U.S.C.).

11 SEC. 702. INTER-AGENCY COORDINATION.—(a) The
12 Energy Resources Council (42 U.S.C. 5818) shall provide
13 assistance to the Board at the Board's request and shall be
14 responsible for insuring communication and coordination
15 among the Departments and agencies of the Federal Govern-
16 ment which are assigned responsibilities for the implementa-
17 tion and administration of action programs to increase do-
18 mestic supply pursuant to titles II, III, and IV of this Act.

19 (b) The President shall designate such additional mem-
20 bers and ex-officio members from Federal Departments and
21 agencies to serve on the Energy Resources Council as are
22 necessary to carry out the provisions of this Act.

23 (c) Members of the Energy Resources Council shall,
24 upon request of the Board—

25 (1) initiate proposals for additional domestic

1 energy action programs to achieve the purposes of this
2 Act;

3 (2) review and make recommendations to the
4 Board respecting action programs proposed by the
5 Board for achieving the purposes of this Act;

6 (3) utilize the resources and expertise of their
7 respective agencies in the formulation and review of pro-
8 grams to achieve the purposes of this Act; and

9 (4) undertake such additional related tasks as the
10 Board may direct.

11 TITLE VIII—GENERAL PROVISIONS

12 SEC. 801. SEPARABILITY.—In any part of this Act is
13 declared unconstitutional, or the applicability thereof to any
14 person or circumstances is held invalid, the applicability of
15 such part to other persons and circumstances and the consti-
16 tutionality or validity of every other part of the Act shall not
17 be affected thereby.

18 SEC. 802. EFFECTIVE DATE; TERMINATION DATE.—

19 (a) This Act shall take effect on the date of its enactment:
20 *Provided*, That sections 301, 302, 303, and 405 shall take
21 effect on the date that a majority of the members of the
22 National Energy Production Board enter upon their offices.

23 (b) This Act shall terminate September 30, 1980.

94TH CONGRESS
1ST SESSION

S. 825

IN THE SENATE OF THE UNITED STATES

FEBRUARY 25 (legislative day, FEBRUARY 21), 1975

Mr. CASE introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

A BILL

To amend the Outer Continental Shelf Lands Act to provide for strict liability in the case of damage caused by oil spills, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 That the Outer Continental Shelf Lands Act (43 U.S.C.
4 1331-1343) is amended as follows.

5 (1) The first sentence of section 5 of that Act (43
6 U.S.C. 1334) is amended by striking out "shall prescribe
7 such rules" and inserting in lieu thereof "shall, with the con-
8 currence of the Secretary of Commerce, and the Secretary
9 of Transportation".

1 (2) The second sentence of such section 5 is amended
2 by inserting “, in accordance with the preceding sentence,”
3 immediately after “Secretary”.

4 (3) Such section 5 is further amended by inserting after
5 the second sentence the following: “Such rules and regula-
6 tions shall include a provision requiring the removal by the
7 leasee of all structures sited in or on the Outer Continental
8 Shelf which have been declared by the Secretary to be non-
9 functional.”.

10 (4) Such section 5 is further amended by adding at the
11 end thereof the following: “The Secretary annually shall,
12 after an opportunity for public hearings, review the rules and
13 regulations prescribed by him under this section. In addition,
14 the Secretary shall take action he deems necessary to ensure
15 that each offshore drilling site operating under a lease issued
16 under this Act be inspected at least once every sixty days to
17 determine whether such site is being operated according to
18 such rules and regulations and the terms of the lease issued
19 for its operation.”.

20 (5) Section 9 of that Act (43 U.S.C. 1338) is amended
21 by striking out “deposited in the Treasury of the United
22 States and credited to miscellaneous receipts.” and inserting
23 in lieu thereof “paid by the Secretary to those States which
24 are placed in an adverse fiscal position because of activities
25 in or on the Outer Continental Shelf conducted under a lease

1 issued under this Act. Payments to any one adversely af-
2 fected State shall be equal to the difference between the
3 increase in tax revenues amounts received by such State (and
4 its political subdivisions) as a result of such activities and
5 the amounts expended by such State (and its political sub-
6 divisions) on governmental services required as a result of
7 such activities. Any sums collected by the Secretary and not
8 paid to any State under this section shall be deposited in the
9 Treasury of the United States and credited to miscellaneous
10 receipts.”

11 (6) Sections 16 and 17 of that Act are redesignated
12 sections 18 and 19, respectively.

13 (7) Such Act is amended by inserting immediately after
14 section 15 the following:

15 “SEC. 16. STRICT LIABILITY.—(a) Notwithstanding
16 any other provision of law, each lessee, and the Outer Con-
17 tinental Shelf Liability Fund (hereinafter in this section re-
18 ferred to as the ‘Fund’) shall be strictly liable without regard
19 to fault, in accordance with the succeeding provisions of this
20 section, for all damages, including cleanup costs, sustained by
21 any person or entity (public or private) as a result of opera-
22 tions or activities at, related to, or in the vicinity of, any
23 offshore drilling site operated by the lessee.

24 “(b) Notwithstanding any other provision of law, the
25 owner or operator of any vessel (jointly or severally) and

1 the Fund shall be strictly liable without regard to fault, in
2 accordance with the succeeding provisions of this section,
3 for all damages sustained by any person or entity (public
4 or private) within the United States or within the coastal
5 waters of the United States within two hundred nautical
6 miles of the shoreline of the United States, which result from
7 any discharge of oil from the operation of any offshore drill-
8 ing site, including the transportation of oil from the drilling
9 site to an onshore storage site.

10 “(c) Strict liability shall not be imposed under this
11 section—

12 “(1) if the lessee, owner, or operator of any vessel
13 or transport, as the case may be, or the Fund, can show
14 that the damages concerned were caused by an act of
15 war, or negligence of the United States, or other gov-
16 ernmental entity; or

17 “(2) with respect to the claim of a damaged party,
18 if the lessee, owner, or operator of any vessel or trans-
19 port, as the case may be, or the Fund, can show that
20 the damage was caused by the negligence of the party
21 sustaining such damage.

22 “(d) Strict liability for all claims arising out of any
23 one incident shall not exceed \$500,000,000, and the Fund
24 shall be liable for all such claims not exceeding \$500,000,000.
25 If the total claims exceed \$500,000,000, they shall be re-

5

1 duced proportionately. The unpaid portion of any claim
2 may be asserted and adjudicated under other applicable pro-
3 visions of Federal or State law. The liability of any lessee
4 or owner or operator of any vessel or transport for damages
5 in excess of \$500,000,000 arising out of any one incident
6 shall be determined in accordance with the ordinarily appli-
7 cable rules of evidence.

8 “(e) The Fund is hereby established as a nonprofit cor-
9 porate entity which may sue and be sued in its own name.
10 The Fund shall be administered by the Secretary. The Fund
11 shall be audited annually by the Comptroller General of the
12 United States, and a copy of each such audit shall be sub-
13 mitted to the Congress.

14 “(f) (1) The Fund shall consist of moneys transferred
15 into the Fund as follows:

16 “(A) Twenty per centum of all money paid as bids
17 on leases issued under section 8 shall be paid by the Sec-
18 retary into the Fund.

19 “(B) The Fund shall collect from each lessee a fee
20 of 10 cents per barrel of oil produced at any site leased
21 under this Act.

22 “(2) Collections and contributions made under par-
23 agraphs (1) (B) and (1) (C) shall cease when the
24 amount in the Fund reaches \$500,000,000, and shall
25 be resumed when the amount in the Fund falls below

1 \$500,000,000. The cost of administering the Fund shall
2 be paid out of money in the Fund, and all sums not re-
3 quired for either administration or for the satisfaction
4 of claims may be prudently invested by the Secretary in
5 securities approved by him. Interest from such invest-
6 ments shall be paid into the Fund.

7 “(g) The strict liability applied under this section shall
8 cease to apply to oil which has been brought ashore and re-
9 moved from the shore storage facility.

10 “(h) In any case where liability without regard to fault
11 is imposed pursuant to this section and the damages involved
12 were caused by the unseaworthiness of the vessel or by
13 negligence, the owner or operator of the vessel, or the Fund,
14 as the case may be, shall be subrogated under applicable
15 State and Federal laws to the rights under such laws of any
16 person entitled to recovery hereunder. If any subrogee brings
17 an action on unseaworthiness of the vessel or negligence of
18 its owner or operator, it may recover from any affiliate of the
19 owner or operator if the respective owner or operator fails
20 to satisfy any claim by the subrogee allowed under this sub-
21 section.

22 “(i) This section shall not be interpreted to preempt
23 the field of strict liability or to preclude any State from
24 imposing additional requirements.

25 “(j) If the Fund is unable to satisfy a claim asserted and

1 finally determined under this section, the Fund may bor-
 2 row the money needed to satisfy the claim from any com-
 3 mercial credit source, at the lowest available rate of in-
 4 terest, subject to approval of the Secretary.

5 “(k) For purposes of this section the term ‘affiliate’
 6 includes—

7 “(1) Any person owned or effectively controlled
 8 by the vessel owner or operator;

9 “(2) any person that effectively controls or has
 10 the power effectively to control the vessel owner or oper-
 11 ator by—

12 “(A) stock interest,

13 “(B) representation on a board of directors or
 14 similar body,

15 “(C) contract or other agreement with other
 16 stockholders,

17 “(D) otherwise; or

18 “(3) any person which is under common owner-
 19 ship or control with the vessel owner or operator.

20 “SEC. 17. RESEARCH FUND.—(a) There is hereby
 21 established the Outer Continental Shelf Research Fund
 22 (hereinafter in this section referred to as the ‘Research
 23 Fund’) which shall be administered jointly by the Secre-
 24 tary, the Secretary of Commerce, and the Secretary of Trans-
 25 portation. Amounts in the Research Fund shall be available,

1 in a manner to be prescribed jointly by the Secretaries named
2 in the preceding sentence, to—

3 “(1) improve the technology related to the ex-
4 ploration and development of the oil and gas resources
5 of the Outer Continental Shelf;

6 “(2) develop baseline data relating to the marine
7 environment on the Outer Continental Shelf; and

8 “(3) develop data regarding the impact of develop-
9 ing the oil and gas resources of the Outer Continental
10 Shelf on the marine and associated onshore environment.

11 “(b) The research conducted or funded, as the case
12 may be, under paragraph (1) of subsection (a) may include
13 downhole safety devices, methods of controlling blowing
14 out or burning wells, methods for containing and cleaning up
15 oil spills, improved drilling bits, improved flaw detection
16 systems for undersea pipelines, new and improved methods
17 of development in water depths of over six hundred meters,
18 deepsea diving systems, and subsea production systems.”.

94TH CONGRESS
1ST SESSION

S. 826

IN THE SENATE OF THE UNITED STATES

FEBRUARY 25 (legislative day, FEBRUARY 21), 1975

Mr. CASE introduced the following bill; which was read twice and referred to the Committee on Commerce

A BILL

To amend the Coastal Zone Management Act of 1972 in order to authorize assistance to coastal States to enable them to study, assess, and plan effectively with respect to the impact within their coastal zones of off-shore energy-related facilities and activities and to assure the maximum effectiveness of the coastal zone management plans of such States; and for other purposes.

- 1 *Be it enacted by the Senate and House of Representa-*
 2 *tives of the United States of America in Congress assembled,*
 3 That section 302 of the Coastal Zone Management Act of
 4 1972 (16 U.S.C. 1451) is amended—
 5 (1) by striking out “and” at the end of clause (g) ;
 6 (2) by striking out the period at the end of clause
 7 (h) and inserting in lieu thereof “; and”; and

1 (3) by adding at the end thereof the following new
2 clause:

3 “(i) The Nation’s coastal zone is significantly affected
4 by activities on or in the Outer Continental Shelf, such as the
5 siting of energy producing facilities and the exploration, pro-
6 duction, and development of oil and gas on the Outer Con-
7 tinental Shelf.”.

8 SEC. 2. Section 304 of the Coastal Zone Management
9 Act of 1972 (16 U.S.C. 1453) is amended by adding at
10 the end thereof the following new subsection:

11 “(j) ‘Affected coastal State’ means any State bordering
12 on the Atlantic, Pacific, or Arctic Ocean, the Gulf of Mexico,
13 or the Long Island Sound.”.

14 SEC. 3. The Coastal Zone Management Act of 1972
15 (16 U.S.C. 1451-1464) is further amended by adding at
16 the end thereof the following new section:

17 “SEC. 316. (a) For purposes of this section—

18 “(1) The term ‘offshore energy facility’ means any
19 facility of any kind the purpose of which is the produc-
20 tion or generation of energy from the resources of the
21 Outer Continental Shelf, and which is located on or
22 above such shelf.

23 “(2) The term ‘related onshore facility’ means any
24 facility located within, or adjacent to, the coastal zone
25 of any affected coastal State which is required to support

1 the development (including exploration) or operation,
2 or both, of any offshore energy facility.

3 “(b) (1) Notwithstanding any other provision of this
4 title or any other provision of law, no Federal agency may
5 take any action which authorizes the commencing of, or the
6 carrying out of, any preproduction exploration (except geo-
7 physical exploration) with respect to any offshore energy
8 facility within any area of the Outer Continental Shelf
9 before the affected coastal State—

10 “(A) develops pursuant to section 306 (h) and the
11 Secretary approves, a segment of the State coastal zone
12 management program concerning the impact on the
13 coastal zone of such State of activities related to the
14 development and operation of offshore energy facilities
15 in such area; or

16 “(B) certifies to the Secretary that the prohibition
17 on such Federal agency action set forth in this paragraph
18 shall not apply with respect to such area of the Outer
19 Continental Shelf.

20 “(2) Within thirty days after the date on which—

21 “(A) the Secretary approves the coastal zone
22 management plan segment referred to in paragraph (1)
23 (A) of any affected coastal State, or

24 “(B) any affected coastal State certifies pursuant to
25 paragraph (1) (B) to the Secretary that the prohibition

4

1 on Federal agency action is waived with respect to such
2 State;
3 any other affected coastal State (the coastal zone manage-
4 ment plan of which has not been approved by the Secretary
5 and which has not so certified such a waiver) which con-
6 sideres that such Federal agency action in such area of the
7 Outer Continental Shelf will, or may, have an impact on its
8 coastal zone may petition the Secretary to suspend, or to
9 prohibit, any such Federal agency action in that area. If
10 the Secretary determines on the record after opportunity
11 for agency hearing that any such Federal action in such area
12 will, or may, adversely affect the coastal zone of the coastal
13 State submitting such petition, he may suspend, or prohibit,
14 any such Federal agency action in such area for such time as
15 he determines appropriate.

16 “(3) The prohibition on Federal agency action set forth
17 in paragraph (1) of this subsection shall cease to apply after
18 the close of the one-year period which begins on the effective
19 date of this paragraph. The Secretary may not, pursuant to
20 paragraph (2) of this subsection, suspend or prohibit any
21 such Federal agency action for any period of time after the
22 close of such one-year period.

23 “(c) (1) Notwithstanding any other provision of this
24 title or any other provision of law, no Federal agency may
25 take any action which authorizes the commencing of, or the

1 carrying out of, any production from, or any production
2 development of, any offshore energy facility within any area
3 of the Outer Continental Shelf before the affected coastal
4 State—

5 “(A) develops, and the Secretary approves, the
6 coastal zone management program of each State pursuant
7 to section 306; or

8 “(B) certifies to the Secretary that the prohibition
9 on Federal agency action set forth in this paragraph
10 shall not apply with respect to such area of the Outer
11 Continental Shelf.

12 “(2) Within thirty days after the date on which—

13 “(A) the Secretary approves the coastal zone man-
14 agement plan of any affected coastal State, or

15 “(B) any affected coastal State certifies pursuant to
16 paragraph (1) (B) to the Secretary that the prohibition
17 on Federal agency action is waived with respect to such
18 State;

19 any other affected coastal State (the coastal zone manage-
20 ment plan of which has not been approved by the Secretary
21 and which has not so certified such a waiver) which con-
22 siders that such Federal agency action in such area of the
23 Outer Continental Shelf will, or may, have an impact on its
24 coastal zone may petition the Secretary to suspend, or to

1 prohibit, any such Federal agency action in that area. If
2 the Secretary determines on the record after opportunity
3 for agency hearing that any such Federal agency action in
4 such area will, or may, adversely affect the coastal zone of
5 the coastal State submitting the petition, he may suspend,
6 or prohibit, any Federal agency action in such area for such
7 time as he determines appropriate.

8 “(3) The prohibition on Federal agency action set forth
9 in paragraph (1) of this subsection shall cease to apply after
10 the close of June 30, 1977. The Secretary may not, pursuant
11 to paragraph (2) of this subsection, suspend or prohibit any
12 such Federal agency action for any period of time after
13 June 30, 1977.

14 “(d) (1) Each appropriate Federal agency shall in-
15 form, on a continuing basis, all affected coastal States of the
16 nature, location, and magnitude of potential resources in or
17 on the Outer Continental Shelf. Any lessee of any area of
18 the Outer Continental Shelf shall, upon obtaining any infor-
19 mation described in the preceding sentence, transmit it to
20 the appropriate Federal agency within thirty days, and such
21 agency shall, within fifteen days after receipt of such infor-
22 mation, transmit it to the appropriate affected coastal States.

23 “(2) Each Federal agency which has authority to grant
24 licenses, leases, or permits for, or otherwise authorize, the
25 exploration or development of resources in or on the Outer

1 Continental Shelf shall make available to the appropriate
2 affected coastal States all information relating to the timing,
3 location, and magnitude of any authorizing activity including
4 any proposed long-term plans, in which that agency is
5 planning to engage.

6 “(3) In the process of granting licenses, leases, or per-
7 mits for, or otherwise authorizing, the exploration or devel-
8 opment of resources in or on the Outer Continental Shelf,
9 each appropriate Federal agency shall coordinate and con-
10 sult with all affected coastal States likely to be impacted by
11 such exploration or development and shall utilize, to the
12 maximum extent practical, any data developed by any af-
13 fected coastal State pursuant to subsection (e). Such co-
14 ordination, consultation, and utilization shall be made an
15 integral part of such agency authorizing process as soon as
16 possible to enable each affected coastal State to plan for, and
17 ameliorate, the effects of exploration and development on the
18 Outer Continental Shelf.

19 “(e) (1) The Secretary may, subject to such terms and
20 conditions as he deems appropriate, make grants pursuant
21 to this subsection to any affected coastal State for the pur-
22 poses of providing to such State financial assistance to carry
23 out one or more of the following activities—

24 “(A) The collection and assessment of the eco-
25 nomic, environmental, and social data which is neces-

1 sary to enable such State to identify and designate those
2 sites within or adjacent to its coastal zone which are
3 suitable or unsuitable for the location of related on-shore
4 facilities.

5 “(B) The development of a process for the selection
6 and designation of such sites within, or adjacent to, its
7 coastal zone.

8 “(C) The construction of such public facilities and
9 works, and the provision of such public services, as may
10 be necessary and appropriate to provide for the integra-
11 tion of any related on-shore facility into the community
12 where sited.

13 “(2) No affected coastal State may receive any grants
14 under this subsection unless such State—

15 “(A) is receiving a program development grant
16 under section 305 and is making satisfactory progress
17 (as determined by the Secretary) toward the develop-
18 ment of a coastal zone management program under sec-
19 tion 306, or is receiving an administrative grant under
20 section 306;

21 “(B) demonstrates, to the satisfaction of the Sec-
22 retary that any such grant will be used solely to carry
23 out one or more of the purposes set forth in paragraph
24 (1) of the subsection; and

25 “(C) in the case of a grant which will be used to

9

1 develop a site selection process, demonstrates, to the
2 satisfaction of the Secretary that the process so developed
3 will be incorporated into the management program of
4 the State developed under section 306.

5 “(3) (A) There is established in the Treasury of the
6 United States an Affected Coastal States Fund (hereafter
7 referred to in this paragraph as the ‘fund’). The Secretary
8 shall make grants pursuant to this subsection from the fund.

9 “(B) No affected coastal State may receive grants in
10 any one fiscal year the aggregate amount of which exceeds
11 15 per centum of the total amount which is available for
12 disbursement by the Secretary during that fiscal year to
13 all impacted coastal States pursuant to this subsection.

14 “(C) There is authorized to be appropriated to the
15 fund (i) \$100,000,000 for each of fiscal years 1976 and
16 1977; and (ii) for fiscal years after fiscal year 1977 such
17 sums as may be necessary to carry out the purposes of this
18 subsection. Any appropriations made to the fund shall re-
19 main available until expended.”.

94TH CONGRESS
1ST SESSION

S. 827

IN THE SENATE OF THE UNITED STATES

FEBRUARY 25 (legislative day, FEBRUARY 21), 1975

Mr. CASE introduced the following bill; which was read twice and referred to the Committee on Public Works

MARCH 5, 1975

The Committee on Public Works discharged, and referred to the Committee on Interior and Insular Affairs

A BILL

To amend the National Environmental Policy Act to provide for the filing of certain supplemental information statements.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That title I of the National Environmental Policy Act is
4 amended by adding immediately after section 105 the fol-
5 lowing new section:

6 "SEC. 106. (a) In addition to any statement that may
7 be required under section 102 (C) (i) with respect to any
8 Federal action to lease any site on the Outer Continental
9 Shelf for the exploration and development of oil and gas,
10 there shall be prepared by the responsible official—

11 "(1) before any preproduction exploration (except

1 geophysical exploration) or preproduction development
2 is commenced with respect to any such site, a supple-
3 mental statement on the environmental impact of such
4 exploration or development which sets forth—

5 “(A) the specific environmental hazards asso-
6 ciated with such exploration or development, and

7 “(B) the specific measures which will be taken
8 by the lessee and the Federal agency concerned to
9 alleviate such hazards including those performance
10 standards which will be applied with respect to any
11 equipment used during such exploration or develop-
12 ment; and

13 “(2) before any production or production develop-
14 ment is commenced with respect to any such site, a
15 supplemental statement on the environmental impact of
16 such production or development which sets forth—

17 “(A) the specific environmental hazards asso-
18 ciated with such production and production develop-
19 ment, and

20 “(B) the specific measures which will be
21 undertaken by the lessee and the Federal agency to
22 alleviate such hazards, including those performance
23 standards which will be applied to any equipment
24 used during such production or development.

1 “(b) Any supplemental statement prepared pursuant
2 to subsection (a) shall be treated for purposes of consulta-
3 tion and public availability as if such statement had been
4 made pursuant to section 102 (C) (i).”.

94TH CONGRESS
1ST SESSION

S. 1182

IN THE SENATE OF THE UNITED STATES

MARCH 13 (legislative day, MARCH 12), 1975

Mr. ROTH introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

A BILL

To amend certain provisions of law relating to the leasing of oil and gas deposits of the United States, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 That (a) Congress hereby finds and declares that since
4 the energy mineral resources of the United States con-
5 stitute an increasingly important resource from the use of
6 which the public is entitled to benefit, it is the policy of
7 Congress that the leasing of the oil and gas deposits of the
8 United States shall be so administered as to—

9 (1) increase the royalties from such leases;

10 (2) assure orderly exploration and development
11 of such public mineral resources;

1 (3) protect the environment from undesirable
2 effects of exploration, development, and production
3 operations;

4 (4) promote competition in development of oil
5 and gas resources; and

6 (5) provide reserves for national security and
7 other emergency needs.

8 (b) This Act may be cited as the "Energy Resources
9 Expansion Act".

10 SEC. 2. (a) Subsection (b) of section 17 of the Act
11 entitled "An Act to promote the mining of coal, phosphate,
12 oil, oil shale, gas, and sodium on the public domain", ap-
13 proved February 25, 1920, as amended (30 U.S.C. 226
14 (b)), is amended (1) by designating the existing text as
15 (b) (1); (2) by deleting "12 $\frac{1}{2}$ " and inserting in lieu
16 thereof "25"; and (3) by adding at the end thereof the
17 following new paragraph:

18 “(2) The Secretary of the Interior shall issue general
19 regulations implementing the leasing procedure provided by
20 this subsection and section 8 of the Outer Continental Shelf
21 Lands Act (43 U.S.C. 1337). Such regulations shall define
22 the general terms of the lease and shall contain provisions
23 requiring each bid submitted under this subsection or such
24 section 8, on or after the effective date of this paragraph, to
25 contain a work program for the geophysical exploration and

1 exploratory drilling and the development and production
2 of oil and gas with respect to lands covered by such bid, and
3 a detailed schedule as to the time period within which
4 drilling operations shall commence. Such regulations shall
5 further provide for the inclusion within any lease issued
6 hereunder a provision pursuant to which the Secretary shall
7 have the right to require increased production under such
8 lease for purposes of national security or other emergency
9 needs. Such bid shall further contain a verified statement as
10 to the minimum amount of funds intended to be expended
11 by the bidder in carrying out such work program. Such
12 work program, schedule, and verified statement contained in
13 any such bid shall be included as a part of any lease issued
14 on the basis of such bid.”

15 (b) Section 17 (c) of such Act of February 25, 1920,
16 as amended, is amended (1) by designating the existing
17 text as (c) (1); (2) by deleting “12½” and inserting in
18 lieu thereof “25”; and (3) by adding at the end thereof the
19 following new paragraph:

20 “(2) The Secretary of the Interior shall issue general
21 regulations implementing the leasing procedures under this
22 subsection. Such regulations shall define the general terms of
23 the lease and shall contain provisions requiring each appli-
24 cation for a lease under this subsection, submitted on or after
25 the effective date of this paragraph, to contain a work pro-

1 gram for the geophysical exploration and exploratory drilling
2 and the development and production of oil and gas with re-
3 spect to lands covered by such application, and a detailed
4 schedule as to the time period within which drilling opera-
5 tions shall commence. Such regulations shall further provide
6 for the inclusion within any lease issued hereunder a pro-
7 vision pursuant to which the Secretary shall have the right
8 to require increased production under such lease for purposes
9 of national security or other emergency needs. Such applica-
10 tion shall further contain a verified statement as to the mini-
11 mum amount of funds intended to be expended by the appli-
12 cant in carrying out such work program. Such work program,
13 schedule, and verified statement contained in an application
14 shall be included as a part of any lease issued on the basis
15 of such application.”.

16 (c) Section 17 (d) of such Act of February 25, 1920,
17 as amended, is amended (1) by designating the existing
18 text as (d) (1); and (2) by adding at the end thereof the
19 following new paragraph:

20 “(2) Notwithstanding any other provision of this Act,
21 in any case in which the Secretary determines that there
22 has been a substantial failure on the part of any lessee to
23 comply with such work program or drilling schedule con-
24 tained in any such lease issued on or after the date of the
25 enactment of this paragraph, the Secretary may terminate
26 such lease.”.

1 (d) Section 17 of such Act of February 25, 1920, as
2 amended, is amended by adding at the end thereof the
3 following:

4 “(k) Notwithstanding any other provision of this Act
5 or the Outer Continental Shelf Lands Act, the Secretary of
6 the Interior is authorized to include in any lease issued pur-
7 suant to this Act or the Outer Continental Shelf Lands Act,
8 on the basis of regulations promulgated by him, provisions
9 determined by him to be necessary to promote the maximum
10 efficient recovery of crude oil and gas under sound conserva-
11 tion, economic, and engineering principles, and to provide
12 for increased production for purposes of national security or
13 other emergency needs.

14 “(l) Notwithstanding any other provision of this Act
15 or any other law, all leases issued pursuant to this Act or the
16 Outer Continental Shelf Lands Act shall contain a condition
17 that in no case shall any such lease be extended beyond its
18 primary term unless oil or gas is being produced in paying
19 quantities.”.

20 (e) Section 36 of such Act of February 25, 1920, as
21 amended (30 U.S.C. 192), is amended to read as follows:

22 “SEC. 36. (a) All royalty accruing to the United States
23 under any oil or gas lease or permit under this Act or the
24 Outer Continental Shelf Lands Act, on demand of the Secre-
25 tary of the Interior, or when required in accordance with

1 subsection (c) of this section, shall be paid in oil or gas.

2 “(b) Upon granting any such oil or gas lease, and from
3 time to time thereafter during such lease, the Secretary of
4 the Interior shall, except whenever in his judgment it is
5 desirable to retain the same for the United States, including
6 to increase strategic reserves or stockpiles in the national
7 or public interests, offer for sale for such period as he may
8 determine, upon notice and advertisement or sealed bids or
9 at public auction, all royalty oil and gas accruing or reserved
10 to the United States under such lease. Such advertisement
11 and sale shall reserve to the Secretary of the Interior the
12 right to reject all bids whenever, within his judgment, the
13 interest of the United States demands. In cases where no
14 satisfactory bid is received or where the accepted bidder
15 fails to complete the purchase, or where the Secretary of
16 the Interior shall determine that it is unwise in the public
17 interest to accept the offer of the highest bidder, the Secre-
18 tary of the Interior, within his discretion, may readvertise
19 such royalty for sale, or sell at private sale at not less than
20 the market price for such period, or accept the value thereof
21 from the lessee.

22 “(c) Inasmuch as the public interest will be served by
23 the sale of royalty oil to refineries not having their own
24 source of supply for crude oil, the Secretary of the Interior,
25 upon application from any such refinery and a determination

1 by the Secretary that sufficient supplies of crude oil are not
2 available in the open market to such refinery, shall, not-
3 withstanding the provisions of subsection (b) of this sec-
4 tion, make available to such refinery royalty oil under the
5 provisions of this section for processing or use in such re-
6 finery and not for resale in kind, and in so doing may sell
7 to such refinery at private sale at not less than the market
8 price any royalty oil accruing or reserved to the United
9 States under leases issued pursuant to this Act or the Outer
10 Continental Shelf Lands Act. In selling such royalty oil,
11 the Secretary of the Interior may, in his discretion, prorate
12 such oil among such refineries in the area in which the oil
13 is produced. Pending the making of a permanent contract
14 for the sale of any royalty oil or gas as herein provided, the
15 Secretary of the Interior may sell the current product at
16 private sale, at not less than the market price. Any such
17 royalty oil or gas may be sold at not less than the market
18 price at private sale to any department or agency of the
19 United States.

20 “(d) Subject to the provisions of subsection (c) of this
21 section and section 9(b) of the Outer Continental Shelf
22 Lands Act (43 U.S.C. 1338) all proceeds received by the
23 Secretary of the Interior pursuant to sales of royalty oil and
24 gas under the foregoing provisions of this section shall be
25 deposited by him in the trust fund established by section 4 of

1 the Energy Resources Expansion Act for use in accordance
2 with the provisions thereof.

3 “(e) Notwithstanding any other provisions of this Act,
4 nothing in this section shall be construed as altering, modi-
5 fying, or otherwise affecting any provision of law in effect
6 on the date of the enactment of this subsection earmarking
7 or designating certain revenues due the United States from
8 oil or gas leases for use in connection with other specific
9 programs or purposes.”.

10 SEC. 3. (a) On or before the expiration of the one-
11 hundred-and-eighty-day period following the date of enact-
12 ment of this Act, the Secretary of the Interior, in consulta-
13 tion with the heads of other agencies of the United States
14 whose responsibilities relate to energy research, development,
15 or conservation, shall prepare and submit to the Congress
16 detailed plans for carrying out, during the five-year period
17 following the date of the submission of such plans to the
18 Congress, the following programs :

19 (1) a program for conducting, assisting, and foster-
20 ing energy research, development, and demonstration,
21 coordinated with other public and private energy re-
22 search and development efforts, in order to provide for
23 alternative sources of energy, with particular emphasis
24 on renewable energy sources, and to provide new and
25 improved technologies for the supply, use, and conserva-

1 tion of energy, including conservation in production, con-
2 version, transmission, and transportation;

3 (2) a program to encourage widespread early par-
4 ticipation by industry in such research, development, and
5 demonstration, with particular attention to participation
6 by smaller companies and businesses;

7 (3) a program to further establish the nature and
8 extent of energy mineral resources located upon or with-
9 in the public lands of the United States, including the
10 Outer Continental Shelf, together with research and de-
11 velopment in geological, environmental, and other sci-
12 ences and technologies relevant to such program, in-
13 cluding the environmental effects of the mining of such
14 resources and means by which such effects might be
15 kept within acceptable bounds; and

16 (4) a program for timely collection, analysis, and
17 publication of information concerning the energy mineral
18 resources of the public lands of the United States and
19 the operations of lessees with respect to the mining
20 thereof.

21 (b) No program contained in any plan submitted to
22 the Congress pursuant to subsection (a) of this section
23 shall be carried out by the Secretary of the Interior until
24 after the expiration of the thirty-day period (excluding
25 Saturdays, Sundays, holidays, and days on which either

1 House of Congress is not in session) following the date on
2 which the plan containing such program was submitted to
3 the Congress under subsection (a) of this section.

4 (c) Moneys deposited in the trust fund established pur-
5 suant to section 4 of this Act shall be available, in accordance
6 with the provisions of that section, for carrying out programs
7 under this section.

8 (d) Notwithstanding any other provisions of this Act,
9 all functions and duties imposed on the Secretary of the
10 Interior under this section and section 4 of this Act shall,
11 upon the subsequent establishment by the Congress of an
12 agency for research and development in the field of energy,
13 be deemed transferred to that agency.

14 SEC. 4. (a) There is hereby established in the Treasury
15 of the United States a trust fund to be known as the Energy
16 Resources and Technology Trust Fund (referred to in this
17 Act as the "trust fund"). The trust fund shall consist of such
18 amounts as may be credited to it as provided in this Act or
19 amendments made by this Act.

20 (b) It shall be the duty of the Secretary of the Treasury
21 to manage the trust fund and (after consultation with the
22 Secretary of the Interior) to report to the Congress not later
23 than the first day of March of each year on the financial con-
24 dition and the results of the operations of the trust fund dur-
25 ing the preceding fiscal year and on its expected condition

1 and operations during each fiscal year thereafter. Such report
2 shall include the recommendations of the Secretary of the In-
3 terior as to the amount of revenues needed by the trust fund
4 during the following fiscal year to meet expenditures from the
5 trust fund during such fiscal year. Such report shall be printed
6 as a House document of the session of the Congress to which
7 the report is made.

8 (c) It shall be the duty of the Secretary of the Treasury
9 to invest such portion of the trust fund as is not, in his
10 judgment, required to meet current withdrawals. Such in-
11 vestments may be made only in interest-bearing obliga-
12 tions of the United States or in obligations guaranteed
13 as to both principal and interest by the United States.
14 For such purpose such obligations may be acquired (1)
15 on original issue at the issue price, or (2) by purchase of
16 outstanding obligations at the market price. The purposes
17 for which obligations of the United States may be issued
18 under the Second Liberty Bond Act, as amended, are hereby
19 extended to authorize the issuance at par of special obliga-
20 tions exclusively to the trust fund. Such special obligations
21 shall bear interest at a rate equal to the average rate of
22 interest, computed as to the end of the calendar month
23 next preceding the date of such issue, borne by all market-
24 able interest-bearing obligations of the United States then
25 forming a part of the public debt; except that where such

1 average rate is not a multiple of one-eighth of 1 per centum,
2 the rate of interest of such special obligations shall be the
3 multiple of one-eighth of 1 per centum next lower than
4 such average rate. Such special obligations shall be issued
5 only if the Secretary of the Treasury determines that the
6 purchase of other interest-bearing obligations of the United
7 States, or of obligations guaranteed as to both principal and
8 interest by the United States on original issue or at the
9 market price, is not in the public interest.

10 (d) Any obligation acquired by the trust fund (except
11 special obligations issued exclusively to the trust fund) may
12 be sold by the Secretary of the Treasury at the market price,
13 and such special obligations may be redeemed at par plus
14 accrued interest.

15 (e) The interest on, and the proceeds from the sale or
16 redemption of, any obligations held in the trust fund shall
17 be credited to and form a part of the trust fund.

18 (f) (1) Amounts in the trust fund shall be available, as
19 provided by appropriation Acts, for making expenditures to
20 carry out programs under section 3 of this Act.

21 (2) Of the amounts in the trust fund, 75 per centum
22 thereof shall be available for carrying out programs under
23 paragraphs (1), (2), and (3) of section 3, and 25 per
24 centum shall be available for carrying out programs under
25 paragraph (4) of section 3.

1 (g) Unless otherwise provided by law, the trust fund
2 shall terminate upon the expiration of the ten-year period
3 following the date of the enactment of this Act. Upon such
4 termination, amounts remaining in the trust fund at the time
5 of such termination shall be credited to miscellaneous receipts.

6 SEC. 5. The Secretary of the Interior shall, within the
7 six-month period following the date of the enactment of this
8 Act and each six-month period thereafter, report the compli-
9 ance of lessees with their work plans and drilling schedule
10 plans to the Congress as to the number of oil and gas wells
11 covered by a lease issued by the Secretary of the Interior in
12 existence during the period covered by such report, the num-
13 ber of such wells in production during such period, the rate
14 of production of such wells during such period, the number
15 and identity of such wells not producing during such period,
16 the reasons for such failure to so produce during such period,
17 and the assessment of the Secretary as to the validity of
18 such reasons. Such report shall also include the results of a
19 physical spot check of the wells covered by such report to
20 determine the accuracy of information so reported.

21 SEC. 6. (a) Section 8 of the Outer Continental Shelf
22 Lands Act (43 U.S.C. 1337) is amended by deleting "12½
23 per centum" wherever it appears therein and inserting in
24 lieu thereof "25 per centum".

1 (b) Section 9 of the Outer Continental Shelf Lands
2 Act (43 U.S.C. 1338) is amended (1) by designating the
3 existing text thereof as subsection (a) ; and (2) by adding
4 at the end thereof the following new subsection:

5 “(b) Notwithstanding the provisions of subsection (a)
6 of this section, 5 per centum of all rentals, royalties, and
7 other sums paid to the Secretary or the Secretary of the
8 Navy under any lease on the Outer Continental Shelf
9 issued on or after the date of the enactment of this subsec-
10 tion, which are attributable to that portion of the Outer
11 Continental Shelf adjacent to any State or that portion of the
12 Outer Continental Shelf to which a State by interstate com-
13 pact has limited itself, shall be paid by the Secretary of the
14 Treasury as soon as practicable after December 31 and June
15 30 of each year to such State.”.

94TH CONGRESS
1ST SESSION

S. 1186

IN THE SENATE OF THE UNITED STATES

MARCH 13 (legislative day, MARCH 12), 1975

Mr. HATHAWAY introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

A BILL

To amend the Outer Continental Shelf Lands Act in order to conduct a comprehensive study of the Outer Continental Shelf, to promote the development of Outer Continental Shelf oil and gas resources, to provide for protection of the environment, to promote competition in the production of oil and gas from the Outer Continental Shelf, to authorize the payment of a portion of the revenue under the Act to the coastal States, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 That this Act may be cited as the "Outer Continental Shelf
4 Lands Act Amendments of 1975".

5 The Congress finds—

6 that it is in the interest of the United States to de-

2

1 velop its domestic petroleum resources in order to meet
2 its increasing energy needs, but not at the expense of
3 degrading the environment;

4 that substantial petroleum resources are located
5 within the lands of the Outer Continental Shelf;

6 that it is essential for the Federal Government to
7 establish procedures that will allow the development
8 of those resources within a framework of strict environ-
9 mental safeguards;

10 that the interest of all United States citizens in these
11 vital matters must be recognized, by providing for
12 public disclosure of information and public participation
13 in the procedures involved in the development of Outer
14 Continental Shelf petroleum resources;

15 that full and fair competition shall be maintained
16 in all operations on the Outer Continental Shelf lands;
17 and

18 that a portion of the revenues from such operations
19 shall go to the adjacent coastal States, in return for the
20 efforts undertaken and the environmental risks incurred
21 by these States in the development of Outer Continental
22 Shelf petroleum resources.

23 SEC. 2. (a) Section 9 of the Outer Continental Shelf
24 Lands Act (43 U.S.C. 1338) as amended to read as follows:

1 “SEC. 9. DISPOSITION OF REVENUES.—(a) All rentals,
2 royalties, or other sums paid to the Secretary or the Sec-
3 retary of the Navy under or in connection with any lease
4 on the Outer Continental Shelf for the period beginning
5 June 5, 1950, and ending with the day preceding the date
6 of the enactment of the Outer Continental Shelf Lands Act
7 Amendments of 1974 shall be deposited in the Treasury
8 of the United States and credited to miscellaneous receipts.

9 “(b) All rentals, royalties, or other sums paid to the
10 Secretary or the Secretary of the Navy under or in connec-
11 tion with any lease on the Outer Continental Shelf for the
12 period beginning with the date of the enactment of the
13 Outer Continental Shelf Lands Act Amendments of 1974
14 shall be deposited in the Treasury of the United States; and
15 of the amount of the revenues so deposited in each fiscal
16 year which are attributable to that portion of the Outer
17 Continental Shelf adjacent to any State or that portion
18 of the Outer Continental Shelf to which a State by inter-
19 state compact has limited itself—

20 “(1) 60 per centum shall be paid by the Secretary
21 of the Treasury to such adjacent State, to be added to
22 its general funds and to be used for what it deems to be
23 in its best interest, except that for the purposes of this
24 clause (A) if the revenues attributable to a State in
25 any fiscal year amount to \$50,000,000 or more in royal-

1 ties, then rentals, bonuses, or revenues other than royal-
 2 ties shall not be included, or (B) if the revenues
 3 attributable to a State in any fiscal year amount to less
 4 than \$50,000,000 in royalties, such revenues other than
 5 royalties shall be included in such amount as does not
 6 exceed \$50,000,000 in total revenues attributable to
 7 such State; and

8 “(2) if the revenues attributable to any one State
 9 in a single year exceed \$25,000,000, the share of the
 10 excess payable to that State under clause (1) shall be
 11 reduced in accordance with the following table:

| Amounts | Percentages |
|--|-------------|
| From \$25,000,000 to \$35,000,000----- | 45 |
| From \$35,000,000 to \$45,000,000----- | 30 |
| From \$45,000,000 to \$50,000,000----- | 20 |
| On excess over \$50,000,000----- | 10 |

12 “(c) Any moneys paid to the Secretary or the Secre-
 13 tary of the Navy under or in connection with a lease but held
 14 in escrow pending the determination of a controversy as to
 15 whether the lands on account of which such moneys are
 16 paid constitute part of the Outer Continental Shelf shall, to
 17 the extent that such lands are ultimately determined to con-
 18 stitute said part of the Outer Continental Shelf, be distrib-
 19 uted—

20 “(1) in accordance with subsection (a) if paid
 21 before the date of the enactment of the Outer Continental
 22 Shelf Lands Act Amendments of 1974, and

5

1 “(2) in accordance with subsection (b) if paid on
2 or after the date of the enactment of such amendments.”.

3 (b) Nothing contained in this Act or in the amendments
4 made by this Act shall be construed to alter, limit, or modify
5 in any manner any right, claim, or interest of any State in
6 any funds received before the date of the enactment of this
7 Act and held in escrow pending the determination of any con-
8 troversy as to whether the submerged lands on account of
9 which such funds are received constitute a part of the Outer
10 Continental Shelf.

11 (c) Nothing contained in this Act or in the amendments
12 made by this Act shall be construed to alter, limit, or modify
13 any claim of any State to any right, title, or interest in or
14 jurisdiction over, any submerged lands.

15 SEC. 3. The Outer Continental Shelf Lands Act is fur-
16 ther amended by redesignating sections 15, 16, and 17 as
17 sections 25, 26, and 27, respectively, and by inserting after
18 section 14 the following new sections:

19 “SEC. 15. STUDY OF OUTER CONTINENTAL SHELF.—

20 (a) Within one year following the date of enactment, the
21 Secretary shall, in consultation with the Council on Environ-
22 mental Quality, the Environmental Protection Agency, the
23 National Oceanic and Atmospheric Administration, and other
24 relevant Federal agencies, conduct a comprehensive study
25 and collect all relevant data on areas of the Outer Continen-

6

1 tal Shelf potentially available for exploitation of oil and gas
2 resources, but not yet leased pursuant to this Act. Such study
3 shall include consideration of the following:

4 “(1) basic geological and geophysical data relating
5 to the presence of oil or gas;

6 “(2) biological data on marine plant and animal
7 life, sensitivity of all species to changes in the marine
8 environment, and existing pollution conditions;

9 “(3) oceanographic and meteorological data, in-
10 cluding waves, winds, currents, tides, water depth, topo-
11 graphical conditions, and probable behavior of oilspills
12 from given points;

13 “(4) transportation data, including shipping, pipe-
14 lines, and any other facilities; and

15 “(5) other resource use data, including commercial
16 fishing, sports fishing, and boating.

17 “(b) In conjunction with this study, the Secretary shall
18 consult with other agencies of the Federal Government, in-
19 cluding the Department of Commerce and the Department
20 of Defense, to determine other present or projected uses for
21 Outer Continental Shelf areas, and shall cooperate with these
22 agencies in developing use patterns which are not in conflict
23 and which do not impede the production of oil and gas from
24 these areas.

1 “(c) No leasing shall be conducted on any area of the
2 Outer Continental Shelf until the study of that area required
3 under this section has been completed.

4 “SEC. 16. DESIGNATION OF LEASING AREAS.—(a) On
5 the basis of the study pursuant to section 15, the Secretary
6 shall—

7 “(1) Designate priority development areas in the
8 submerged lands of the Outer Continental Shelf, for pur-
9 poses of leasing pursuant to this Act. These shall be
10 areas in which there is determined to be the greatest
11 potential for development of oil and gas resources and
12 the least risk of environmental damage resulting there-
13 from.

14 “(2) Designate areas of critical environmental con-
15 cern, in which leasing shall be prohibited due to risk of
16 environmental damage, including damage to commercial
17 and recreational activities.

18 “(b) Before designating any area as available for leas-
19 ing pursuant to this Act, the Secretary shall—

20 “(1) make an evaluation of the oil and gas re-
21 sources available in that area, and shall include in mak-
22 ing such evaluation the following:

23 “(i) information which he directs to be gath-
24 ered in surveys conducted by the Department of the

1 Interior, using best available techniques, including
2 seismic exploration and subsoil surveys;

3 “(ii) all data pertaining to that area held by
4 State and local governments and other Federal Gov-
5 ernment agencies;

6 “(iii) all data pertaining to that area obtained
7 by private companies under exploratory permits is-
8 sued by the Department of the Interior: *Provided,*
9 That the Secretary shall require submission, in com-
10 plete and comprehensible form, of such information
11 held by private companies at the time that an area
12 is placed under consideration for leasing, and shall
13 notify the companies to that effect: *Provided fur-*
14 *ther,* That the Secretary shall have authority, for
15 purposes of this subsection, to sign and issue sub-
16 penas for the production of relevant books, papers,
17 charts, and other documents or materials, and, in
18 case of refusal to obey a subpoena served upon any
19 person under the provisions of this subsection, the
20 Secretary may request the Attorney General to seek
21 the aid of the district court of the United States for
22 any district in which such person is found to compel
23 such person, after notice, to appear and produce
24 documents before the Secretary: *Provided further,*

1 That no private company shall be permitted to con-
2 duct further exploration or to bid for or hold a lease
3 in the designated area unless it submits the requisite
4 information to the Secretary;

5 “(2) make available to the public all information
6 obtained under subsection (1): *Provided*, That, except
7 as otherwise provided by law or by this Act, individual
8 company data obtained under that subsection shall be
9 kept confidential for a period of one year, except that
10 such information may be disclosed to other persons em-
11 powered to carry out this Act solely for the purpose of
12 carrying out this Act or when relevant in any proceed-
13 ing under this Act;

14 “(3) hold public hearings in any coastal area where
15 such leasing may have an environmental or commercial
16 effect and provide an opportunity at such hearings for
17 comments from State and local government officials, en-
18 vironmental groups, commercial interests, and other in-
19 terested persons, on both the area to be designated and
20 the terms of leases to be issued thereon, and make tran-
21 scripts of such hearings available to the public; and

22 “(4) obtain the consent of the Governor or Gov-
23 ernors of the State or States in which such coastal area
24 or areas are located.

1 “SEC. 17. ADDITIONAL LEASING REQUIREMENTS.—

2 (a) The Secretary shall make public at least sixty days prior
3 to entering into any lease pursuant to this Act—

4 “(1) the terms of such lease; and

5 “(2) information which he has obtained under sec-
6 tion 16 (b) (1) with respect to oil and gas resources
7 available in the area covered by such lease, in usable
8 and summary form.

9 “(b) Bids for leases and supporting materials shall be
10 made available to the public upon request.

11 “(c) The Secretary is authorized to include in any lease
12 issued pursuant to this Act such special conditions as he de-
13 termines necessary as a result of information obtained pur-
14 suant to section 16.

15 “(d) After consultation with State and local officials
16 and other interested persons in the affected area, the Secre-
17 tary may stipulate as a condition of entering into any lease
18 that priority shall be given to meeting the needs of that area
19 for oil and gas produced under such lease.

20 “(e) In order to obtain maximum feasible production
21 of oil and gas from leases issued pursuant to this Act, the
22 Secretary shall—

23 “(1) prior to entering into any new lease, set
24 standards for drilling and production under that lease,

1 including agreements on timetables and commitment of
2 resources;

3 “(2) prior to renewing any existing lease, deter-
4 mine that oil and gas is being produced in paying quanti-
5 ties under that lease, or set standards for production
6 within a stipulated period of time not to exceed two
7 years: *Provided*, That failure to comply with these
8 standards shall result in forfeiture of the lease at the
9 end of that period of time;

10 “(3) conduct a survey and evaluation of the capaci-
11 ty of all wells currently classified as ‘producing, shut-in’
12 by the United States Geological Survey, and order pro-
13 duction within one year if he determines that production
14 from such a well is technically and geologically feasible
15 and would not violate any environmental requirement
16 imposed by law or regulation: *Provided*, That failure to
17 comply with such order shall result in forfeiture by the
18 lessee of acreage containing such well classified ‘produc-
19 ing, shut-in’.”

20 “SEC. 18. PROMOTION OF COMPETITION.—(a) No
21 lease shall be issued pursuant to this Act unless it has been
22 determined by the Federal Trade Commission and the De-
23 partment of Justice that issuance of such lease will not in-
24 volve a violation of the antitrust laws. Such determination
25 shall be made within thirty days after receipt of the request

1 for a ruling. The Federal Trade Commission and the Depart-
2 ment of Justice shall prepare a detailed memorandum giving
3 the basis of the determination and shall make such memo-
4 randum available to interested parties upon request.

5 “(b) Within one hundred and eighty days after the date
6 of enactment, the Secretary shall prepare and publish a
7 report with recommendations for promoting competition and
8 maximizing revenues from the leasing of Outer Continental
9 Shelf lands, and shall include a plan for implementing rec-
10 ommended changes. Such report shall include consideration
11 of the following—

12 “(1) royalty bidding system as compared to the
13 bonus bidding system;

14 “(2) evaluation of alternative bidding systems not
15 covered under present law;

16 “(3) measures to ease entry of new competitors;
17 and

18 “(4) measures to increase supply to independent
19 refiners and distributors.

20 “SEC. 19. AUTHORITY OF ADMINISTRATOR OF ENVI-
21 RONMENTAL PROTECTION AGENCY.—(a) The Adminis-
22 trator of the Environmental Protection Agency, in consulta-
23 tion with the Secretary of the Interior, is authorized to
24 prescribe such regulations as he determines necessary for
25 protection of the environment from operations conducted

1 (including equipment used therein) under leases pursuant to
2 this Act. Such regulations shall include—

3 “(1) requirements for the use of best available
4 technology, including replacement of existing equipment
5 where necessary;

6 “(2) provisions for inspections by the Administra-
7 tor at any time to determine proper compliance with
8 such regulations;

9 “(3) requirements that a thorough inspection be
10 conducted by the Administrator semiannually;

11 “(4) provisions for inspection by officials of the
12 State or States affected by operations under a particular
13 lease; and

14 “(5) requirements for submission of a contingency
15 plan to be implemented in the event of a discharge of
16 oil.

17 “(b) (1) Any holder of a lease pursuant to this Act and
18 any other person subject to any regulation issued under sub-
19 section (a) who fails or refuses to comply with the provisions
20 of any such regulations shall be liable to a fine of not more
21 than \$5,000 for each such violation. Each day on which such
22 violation occurs shall be a separate offense. The Administra-
23 tor may assess and compromise such penalty. No penalty
24 shall be assessed until the holder or other person charged shall
25 have been given notice and an opportunity for a hearing on

1 such charge. In determining the amount of the penalty, or the
2 amount agreed upon in compromise, the gravity of the viola-
3 tion and the demonstrated good faith of the holder, or other
4 person charged in attempting to achieve rapid compliance,
5 after notification of a violation, shall be considered by the
6 Administrator.

7 “(2) Willful noncompliance with the provisions of any
8 regulations issued under subsection (a) by a holder of a lease
9 pursuant to this Act or by any other person subject to any
10 such regulation shall be considered a crime punishable by a
11 term of no more than one year in prison.

12 “(c) In addition to the penalty provided in subsection
13 (b), the Secretary may (1) suspend all or part of opera-
14 tions on any lease for violations of regulations prescribed pur-
15 suant to subsection (a), and (2) terminate any lease for
16 repeated serious violations.

17 “SEC. 20. REQUIREMENTS FOR STATE DEVELOPMENT
18 OF CERTAIN LANDS.—(a) In the interests of protecting the
19 navigable waters of the United States no State shall author-
20 ize or provide in any way for any construction or develop-
21 ment of any kind on or in any land beneath navigable wa-
22 ters, as defined in section 2 (a) (2) of the Submerged Lands
23 Act, until it has prepared a report including the following:

24 “(1) the environmental impact of the proposed
25 action,

1 “(2) any adverse environmental effects which cannot be avoided should the proposal be implemented,

2 “(3) alternatives to the proposed action,

3 “(4) the relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity, and

4 “(5) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

5 Prior to making any such report, the responsible State official shall consult with and obtain the comments of the Secretary of the Interior, the Secretary of Commerce, the Administrator of the Environmental Protection Agency, and the Chairman of the Council on Environmental Quality with respect to any environmental impact involved. Copies of such report and the comments and views of the appropriate Federal, State, and local agencies, which are authorized to develop and enforce environmental standards, shall be made available to the President, the Council on Environmental Quality, and to the public as provided by section 552 of title 5, United States Code, and shall accompany the proposal through the State agency review processes.

6 “(b) Nothing in this section shall preclude or deny the right of any State or political subdivision thereof or interstate agency to adopt or enforce any standard, limitation, or

1 standard of performance which is more stringent than any re-
2 quired under this Act.

3 “SEC. 21. LIABILITY.—(a) Notwithstanding the pro-
4 visions of any other law, and except when the discharge was
5 caused solely by an act of war, the owner or operator of any
6 onshore or offshore facility (including, but not limited to,
7 pipelines, terminals, platforms, and drilling rigs) or vessel
8 engaged in the extraction, production, transportation, or
9 storage of oil from the Outer Continental Shelf lands, in con-
10 junction with the Outer Continental Shelf Lands Liability
11 Fund established under this subsection, shall be strictly liable
12 without regard to fault for all damages, including cleanup
13 costs, sustained by any person or entity, public or private, as
14 the result of discharges of oil from such facility or vessel.
15 Damages shall include, but not be limited to, injury to per-
16 sons; spoiling of beaches and coastal communities; destruc-
17 tion and injury of sea birds; fouling of boats, fishing gear,
18 piers, and quays; damage to fish, shellfish, and larvae, includ-
19 ing loss of income from harvesting of same; risk of fire in
20 harbors and other enclosed waters; and loss of income from
21 tourism.

22 “(b) Strict liability shall not be imposed under this sub-
23 section with respect to the claim of a damaged party if the
24 damage was caused by the negligence of such party.

1 “(c) In any case where liability without fault is im-
2 posed pursuant to this subsection and the damages involved
3 were caused by the negligence of a third party, the rules of
4 subrogation shall apply in accordance with the law of the
5 jurisdiction where the damage occurred.

6 “(d) Strict liability for all claims arising out of any one
7 incident shall not exceed \$100,000,000. If the total claims
8 allowed exceed \$100,000,000, they shall be reduced propor-
9 tionately. The unpaid portion of any claim may be asserted
10 and adjudicated under other applicable Federal or State
11 law.

12 “(1) The owner or operator of a vessel shall be
13 jointly and severally liable for the first \$14,000,000 of
14 such claims that are allowed, and financial responsibility
15 for the \$14,000,000 shall be demonstrated in accord-
16 ance with the provisions of section 311 (p) of the Fed-
17 eral Water Pollution Control Act, as amended (33
18 U.S.C. 1321 (p)). The fund shall be liable for the bal-
19 ance of the claims that are allowed up to \$100,000,000.

20 “(e) The Outer Continental Shelf Lands Liability Fund
21 is hereby established as a nonprofit corporate entity that
22 may sue and be sued in its own name. The fund shall be
23 administered under regulations prescribed by the Secretary.
24 The fund shall be subject to an annual audit by the Comp-

1 troller General, and a copy of the audit shall be submitted
2 to the Congress.

3 “(f) There shall be collected from the owner of the oil
4 as produced at the wellhead a fee of 5 cents per barrel. The
5 collection shall cease when \$100,000,000 has been accumu-
6 lated in the fund, and it shall be resumed when the accumu-
7 lation in the fund falls below \$100,000,000. The owner
8 of the oil shall be required to maintain a device suitable for
9 measuring the amount of oil conveyed, for purposes of col-
10 lecting this fee.

11 “(g) The collections under paragraph (f) shall be de-
12 livered to the fund. Costs of administration shall be paid
13 from the money paid to the fund, and all sums not needed
14 for administration and the satisfaction of claims shall be
15 invested prudently in income-producing securities approved
16 by the Secretary. Income from such securities shall be added
17 to the principal of the fund.

18 “(h) This subsection shall not be interpreted to preempt
19 the field of strict liability or to preclude any State from
20 imposing additional requirements.

21 “SEC. 22. NATIONAL PETROLEUM RESERVE.—(a) The
22 Secretary shall, on all lands leased pursuant to this Act,
23 require the establishment and maintenance on a pro rata
24 basis of reserve operating capacity which is able if necessary
25 to produce within ninety days an amount of oil equal to

19

1 one-fourth of the amount of crude oil imported into the
2 United States during the calendar year 1972.

3 “(b) For the purpose of this section the Secretary
4 shall—

5 “(1) require regular reports from each holder of
6 a lease pursuant to this Act with respect to the quantities
7 and location of oil reserves located on such lease and
8 such reports shall be available for public inspection;

9 “(2) make necessary inspections of leased areas and
10 facilities thereon to determine the accuracy of such re-
11 ports and other necessary information; and

12 “(3) perform such drilling and other exploratory
13 work in areas offered for lease as is necessary to deter-
14 mine oil resources available.

15 “SEC. 23. OUTER CONTINENTAL SHELF OPERATIONS
16 ADVISORY BOARD.—(a) There is established in the Depart-
17 ment of the Interior an Outer Continental Shelf Operations
18 Advisory Board. The Board shall be composed of the
19 Secretary or his designee, who shall be Chairman, and ten
20 members appointed by the President, one from the Environ-
21 mental Protection Agency and the others to represent
22 appropriate State, interstate, and local government agencies
23 in coastal areas, experts in the fields of operations in the
24 Outer Continental Shelf, private industry involved in such
25 operations and organizations or groups demonstrating an

1 active interest in such operations and the environmental
2 effects thereof.

3 “(b) The Board shall meet at the call of the Chairman
4 or a majority of the members thereof. A majority of the
5 members shall constitute a quorum for the purpose of
6 establishing official positions of the Board.

7 “(c) The Board shall—

8 “(1) review the provisions of this Act and the
9 regulations pursuant thereto;

10 “(2) monitor the enforcement of such provisions
11 and regulations;

12 “(3) make recommendations to the Secretary
13 for any necessary changes in such provisions or regula-
14 tions; and

15 “(4) hold public hearings whenever and wherever
16 appropriate in carrying out its functions.

17 The Secretary shall forward all such recommendations to
18 the Congress, along with his recommendations with respect
19 thereto, at least annually.

20 “(d) Members of the Board from Federal departments
21 and agencies and from State and local governments shall re-
22 ceive no additional compensation for their services as mem-
23 bers of the Board. Members of the Board selected from the
24 private sector, while serving on business of the Board, shall
25 receive compensation at rates fixed by the Secretary but not

1 exceeding \$100 per day, if service on the Board would re-
2 sult in loss of income which would otherwise be earned. All
3 members of the Board, while serving away from their homes
4 or regular places of business, may be allowed travel expenses,
5 including per diem in lieu of subsistence, as authorized by
6 section 5703 of title 5, United States Code, for persons in
7 the Government service employed intermittently. The Sec-
8 retary shall make available to the Board such office space and
9 facilities, and such secretarial, clerical, technical, and other
10 assistance and such information and data in his possession
11 or under his control, as the Board may require to carry out
12 its functions.

13 “SEC. 24. EXTENSION OF BOUNDARIES.—Within one
14 year following the date of enactment, the President shall take
15 appropriate action to delineate, adjudicate, and extend all
16 boundaries for the purposes of this Act. This shall include
17 procedures for settling any outstanding boundary disputes,
18 including international boundaries between the United States
19 and Canada and between the United States and Mexico, and
20 establishing boundaries between adjacent States, as directed
21 in section 4 of this Act.”.

22 AMENDMENT OF FREEDOM OF INFORMATION PROVISIONS
23 OF TITLE 5 UNITED STATES CODE

24 SEC. 4. Section 552 (b) of title 5 of the United States

22

1 Code, is amended by inserting “or” after the semicolon at
2 the end of clause (7), by striking out the semicolon and “or”
3 at the end of clause (8) and inserting in lieu thereof a
4 period, and by striking out clause (9).

94TH CONGRESS
1ST SESSION

S. 1269

IN THE SENATE OF THE UNITED STATES

MARCH 20 (legislative day, MARCH 12), 1975

Mr. JOHNSTON (for himself, Mr. ABOUREZK, Mr. HASKELL, Mr. METCALF, Mr. STONE, and Mr. TUNNEY) introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

A BILL

To create a Coastal States Fund; to provide for the distribution of revenues from Outer Continental Shelf lands; and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That this Act may be cited as the "Outer Continental Shelf
4 Lands Compensation Act".

5 SEC. 2. Section 9 of the Outer Continental Shelf Lands
6 Act (43 U.S.C. 1338) is amended to read as follows:

7 "SEC. 9. (a) DISPOSITION OF REVENUES.—All rent-
8 als, royalties, or other sums paid to the Secretary or the
9 Secretary of the Navy under or in connection with any lease
10 on the Outer Continental Shelf for the period beginning

II

1 June 5, 1950, and ending with the day preceding the date
2 of the enactment of the Outer Continental Shelf Lands Com-
3 pensation Act shall be deposited in the Treasury of the
4 United States and credited to miscellaneous receipts.

5 “(b) All rentals, royalties, or other sums paid to the
6 Secretary or the Secretary of the Navy under or in con-
7 nection with any lease on the Outer Continental Shelf for
8 the period beginning with the date of the enactment of the
9 Outer Continental Shelf Lands Compensation Act, other
10 than any amount credited to the Land and Water Conserva-
11 tion Fund pursuant to section 2 (c) (2) of the Land and
12 Water Conservation Fund Act of 1965, shall be deposited
13 in the Treasury of the United States; and of the amount of
14 the revenues so deposited in each fiscal year an amount
15 equal to 5 per centum of the value of all oil and gas pro-
16 duced in such fiscal year under any lease with the Secretary
17 or the Secretary of the Navy on the Outer Continental
18 Shelf—

19 “(1) 50 per centum shall be paid by the Secretary
20 of the Treasury into a special fund in the Treasury to be
21 known as the Coastal States Fund; and

22 “(2) 50 per centum shall be paid to the several
23 States in proportion to the volume of such oil and gas
24 that is first landed in each such State.

25 “(c) Any moneys paid to the Secretary or the Secre-

1 tary of the Navy under or in connection with a lease but
2 held in escrow pending the determination of a controversy
3 as to whether the lands on account of which such moneys are
4 paid constitute part of the Outer Continental Shelf shall,
5 to the extent that such lands are ultimately determined to
6 constitute said part of the Outer Continental Shelf, be dis-
7 tributed—

8 “(1) in accordance with subsection (a) if paid
9 before the date of the enactment of the Outer Conti-
10 nental Shelf Lands Compensation Act, and

11 “(2) in accordance with subsection (b) if paid
12 on or after the date of the enactment of the Outer Con-
13 tinental Shelf Lands Compensation Act.”.

14 SEC. 3. (a) Nothing contained in this Act or in the
15 amendments made by this Act shall be construed to alter,
16 limit, or modify in any manner any right, claim, or interest
17 of any State in any funds received before the date of the
18 enactment of this Act and held in escrow pending the deter-
19 mination of any controversy as to whether the submerged
20 lands on account of which such funds are received constitute
21 a part of the Outer Continental Shelf.

22 (b) Nothing contained in this Act or in the amend-
23 ments made by this Act shall be construed to alter, limit, or
24 modify any claim of any State to any right, title, or interest
25 in, or jurisdiction over, any submerged lands.

1 SEC. 4. The Outer Continental Shelf Lands Act (43
2 U.S.C. 1331 et seq.) is amended by adding at the end the
3 following new section:

4 "SEC. 18. (a) COASTAL STATES FUND.—There is
5 hereby established in the Treasury of the United States the
6 Coastal States Fund (hereinafter referred to as the 'fund').
7 The Secretary shall manage and make grants from the fund
8 according to the regulations established pursuant to subsec-
9 tions (b) and (c) to the coastal States impacted by antici-
10 pated or actual oil and gas production.

11 "(b) The purpose of such grants shall be to assist coastal
12 States impacted by anticipated or actual oil and gas produc-
13 tion to ameliorate adverse environmental effects and control
14 secondary social and economic impacts associated with the
15 development of Federal energy resources in, or on the Outer
16 Continental Shelf adjacent to the submerged lands of such
17 States. Such grants may be used for planning, construction
18 of public facilities, and provision of public services, and such
19 other activities as may be prescribed by regulations promul-
20 gated pursuant to subsection (c) of this section. Such regula-
21 tions shall, at a minimum, (1) provide that such regulations
22 be directly related to such environmental effects and social
23 and economic impacts; (2) take into consideration the acre-
24 age leased or proposed to be leased and the volume of pro-

5

1 duction of oil and gas from the Outer Continental Shelf off the
2 adjacent coastal State; and (3) require each coastal State, as
3 a requirement of eligibility for grants from the fund, to estab-
4 lish pollution containment and cleanup systems for pollution
5 from oil and gas development activities on the submerged
6 lands of each such State.

7 “(c) The Secretary of Commerce, in accordance with
8 the provisions of subsection (b), and this subsection, shall,
9 by regulation, establish requirements for grant eligibility:
10 *Provided*, That it is the intent of this section that grants
11 shall be made annually to impacted coastal States to the
12 maximum extent permitted by the amounts contained in the
13 fund and that grants shall be made to impacted coastal States
14 in proportion to the effects and impacts of offshore oil and gas
15 exploration, development and production on such States.
16 Such grants shall not be on a matching basis but shall be
17 adequate to compensate impacted coastal States for the
18 full costs of any environmental effects and social and eco-
19 nomic impacts of offshore oil and gas exploration, develop-
20 ment, and production. The Secretary shall coordinate all
21 grants with management programs established pursuant to
22 the Coastal Zone Management Act of 1972.

23 “(d) There is hereby authorized to be appropriated
24 to the fund \$100,000,000.

6

1: “(e) For the purpose of this Act, ‘coastal State’ means
2 a State of the United States in, or bordering on, the Atlantic,
3 Pacific, or Artic Ocean, the Gulf of Mexico, or Long Island
4 Sound, including Puerto Rico, the Virgin Islands, Guam,
5 and American Samoa.”.

Comparison
of Bills Amending the
Outer Continental Shelf Lands Act:
S. 426, S. 521 and Related Bills

| ELEMENT | S. 426 | S. 521 | COMMENTS |
|------------------------|---|--|---|
| <u>SHORT TITLE</u> | Outer Continental Shelf Lands Act Amendments of 1975 | Energy Supply Act of 1975. | |
| <u>Bidding Systems</u> | <p>Sec. 202. would broaden the leasing bid options available to the Secretary. New options include: (A) cash bonus with fixed royalty, (B) variable royalty with fixed bonus, (C) cash bonus with sliding royalty, (D) cash bonus with fixed share net profits, (E) variable profit share with fixed bonus, (F) cash bonus with fixed royalty and net profit share, and (G) competitive performance work program in combination with the foregoing. Statutory restrictions on the lease area would be removed. Time limitations of 5 years to begin production would be retained.</p> | <p>Sec. 203. would expand the leasing options available to the Secretary to include only: (A) cash bonus with fixed royalty, (B) cash bonus with fixed net profit share, and (C) fixed cash bonus with net profit share. Acreage limitations on tract size would be retained but time for production from the lease could be extended up to 10 years to encourage development in deep water or under adverse conditions.</p> | <p>The OCS Act presently authorizes two bidding alternatives: (A) cash bonus with fixed royalty; or (B) variable royalty with fixed bonus. Both proposals provide added flexibility for selecting lease tracts. S. 426 would permit the consideration of non-monetary factors in awarding leases.</p> |

| ELEMENT | S. 521 | COMMENTS |
|-------------------------------|--|---|
| Exploration or Survey Program | | |
| Administration | <p>Sec. 209. would amend Sec. 19 of the OCS Act to establish an exploration program within the U.S.G.C. which would include all exploratory activities inclusive of exploratory drilling to prove the presence of oil or gas prior to leasing.</p> | <p>While S. 521 does not authorize Federal exploratory programs to prove the presence and extent of oil or gas S. 740 (National Energy Production Board Act of 1975) would provide additional authority for expanded Federal exploratory activities (Sec. 202). Administration would be by an Independent Board (Sec. 101).</p> |
| Conduct of Survey | <p>Subsec. 19(b). provides that U.S.G.S. can contract, use force account or purchase exploratory data. Exploratory wells could be contracted out or the Survey could drill such wells as may be required.</p> | <p>S. 740 contains provisions similar to those of S. 426, including authorization to contract for exploratory drilling to prove the field (Subsec. 202(b)).</p> |
| Implementation Plans | <p>Subsec. 19(g) requires that the Secretary and NOAA submit an implementation plan for conducting exploratory operations, including a projected schedule, and areas which will be explored within the first 5 years to Congress within 6 months. A NEPA environmental impact statement would not be needed with the plan.</p> | <p>A projected schedule of exploratory activities would be required by Subsec. 202(b) of S. 740.</p> |

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| ELEMENT | S. 426 | S. 521 | COMMENTS |
|--------------------------------|--|--------------|---|
| Exploratory Areas | Subsec. 19(h)(1) directs the Secretary to promulgate regulations for determining areas to be explored, including consultation with the industry and State and local governments. | No Provision | Selection of areas to be explored would be made with consultation of State and local governments and coordination with the CZMA (Subsec. 202(b)). |
| Coordination with CZMA | Subsec. 19(h)(2) ensures that the proposed exploratory schedule is consistent with State programs under the Coastal Zone Management Act (CZMA). | No Provision | While S. 426 requires "consistency" of Federal exploratory programs with State coastal zone programs under the intent of Sec. 307 of the CZMA, S. 740 speaks only in terms of "coordination" with coastal State programs (Sec. 202(b)). |
| Exploratory Drilling Notice | Subsec. 19(h)(3) requires that detailed information about proposed exploratory drilling be published in the Fed. Reg. 120 days prior to drilling. | No Provision | |
| Environmental Impact Statement | Selection of areas for drilling would require an Environmental Impact Statement under the National Environmental Policy Act (Subsec. 19(h)(4)). | No Provision | S. 426 dispenses with the need for an EIS for the implementation plan under Subsec. 19(g); however, the provisions of Subsec. 19(h)(4) reflect the need for assessing the potential impact of exploratory drilling and the need for environmental assessment early in the exploratory-leasing-development sequence. |

| ELEMENT | S. 426 | S. 521 | COMMENTS |
|-----------------------------|--|--|---|
| Information Dis- closure | Subsec. 19(d) requires that all exploratory data and information conducted under the Federal exploratory program, with exception of certain proprietary data, be made available to the public, without regard to exemptions provided by the Freedom of Information Act. Subsec. 19(f) provides that Interior and NOAA shall keep an updated set of maps based on the results of the exploratory program. | Subsec. 19(c) directs Interior and NOAA to prepare and publish maps and charts of OCS resources at least 6 months prior to a lease sale. | A Federal exploratory program would change the leasing procedure and obviate the need, to some extent, for proprietary exploration and confidentiality. Equality of access to public resource data should act to equalize competition among smaller independents and the consortia of major oil companies. |
| Private Exploration | Subsec. 19(c) permits private geological and geophysical exploration upon issuance of an exploration permit (See Sec. 206 amending Sec. 11 of the OCS Act). Exploratory drilling would not be permitted prior to lease. | Sec. 207, which amends Sec. 11 of the OCS Act, provides for private geological and geophysical exploration upon issuance of a permit. | Neither S. 426 nor S. 521 would discourage private exploration. Requirements for an exploratory permit merely incorporate the administrative procedures now in effect in regard to certain exploratory activities. Prohibition of exploratory drilling by Subsec. 19(c) is not inconsistent with the present OCS Act which also does not authorize exploratory drilling prior to leasing. |

| ELEMENT | S. 426 | S. 521 | COMMENTS |
|--|---|--|--|
| <u>Leasing Program and Schedule</u> | Subsec. 18(b) requires the Secretary to maintain a leasing program which identifies the size, timing and location of leasing over a 10-year planning record. | Subsec. 18(b) requires the Secretary to prepare a 10-year leasing program. Estimates of the probable oil and gas resources and timing and rate of development, as well as identification of environmental hazards are to be included in EIS (Subsec. 18(d)). Nomination of sites is to include the public and be coordinated with CZMA (Subsec. 18(e)), and requires that the leasing program be published in the Fed. Reg. and submitted to Congress within 2 years (Subsec. 18(f)). Subsec. 18(h) requires the Secretary to review and reapprove the Leasing Program annually. | S. 521 utilizes the Leasing Program authorized by Subsec. 18(b) as the major device for disclosing the projected leasing schedule. S. 426, on the other hand, treats the Leasing program as merely a long-range planning document to give sufficient prior notice to State and local governments and to Federal agencies of the areas which may ultimately be chosen for sale (Subsec. 18(b)). |
| <u>Leasing and Development Plan Approval</u> | Subsec. 20(a) requires the Secretary to prepare a Leasing and Development Plan for areas in which oil and gas are discovered as a result of Federal exploration and drilling. The | Sec. 206 would amend Sec. 5 of the OCS Act to require that development of the Lease be in accordance with a development plan submitted by the lessee and approved by the Secretary. However, | The Leasing and Development Plan required by Subsec. 20(a) of S. 426 is the major planning and approval document preceding lease sales. The potential of congressional review would make the Plan an instrument for resolving conflicts between the States and Interior prior to initiating lease sales. |

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| ELEMENT | S. 426 | S. 521 | COMMENTS |
|---|---|--------------|--|
| Plan must be transmitted to Congress 90 days prior to placing leases up for sale. Congress may disapprove within 90 days by a resolution passed by either house stating its reason for disapproval. | | | no provision is made for a leasing and development plan analogous to that required by Subsec. 20(a) of S. 426. |
| Planning Information | Subsec. 20(b) requires that a leasing and development plan include information necessary for States to plan and provide for the impact of offshore oil and gas development. | No Provision | |
| Certification of Consistency | Subsec. 20(b)(12) requires that the Secretary certify that the Leasing and Development Plan is consistent with the State's coastal zone management programs in accordance with section 307 of the CZMA. | No Provision | |
| Comments by States | Subsec. 20(c)(1) requires that the Leasing and Development Plan be submitted to the Governors of the adjacent States for comment 60 days prior to transmittal to Congress required by Subsec. 20(a). | No Provision | |

| ELEMENT | S. 426 | S. 521 | COMMENTS |
|--------------------------------|---|--|----------|
| Petition for Postponement | <p>A Governor may petition the Secretary for postponement of the lease sale for up to 3 years for cause. The Secretary may grant or condition a postponement, or deny it on grounds of national interest (Subsec. 20(c)(2)). Governor's comments and related correspondence must be included when Plan is transmitted to Congress (Subsec. 20(c)(3)).</p> | <p>Sec. 210 would amend Sec. 8 of OCS Act to provide for a request by a Governor of a coastal State for a postponement of up to 3 years for cause similar to the provisions of Subsec. 20(c)(2) of S. 426; however, in the event of an adverse decision, an appeal would be made to a "National Coastal Resources Board" composed of Federal officials appointed by the President and chaired by the Vice President.</p> | |
| Environmental Impact Statement | <p>Subsec. 20(d) requires that the EIS must accompany the Leasing and Development Plan when transmitted to Congress for approval under Subsec. 20(a).</p> | <p>No Provision</p> | |

| ELEMENT | S. 426 | S. 521 | COMMENTS |
|--|--|---|--|
| <u>Environmental Impact Assessment, Baseline Studies, and Monitoring Lead Agency</u> | Subsec. 21(a) designates NOAA as the "lead agency" for the purpose of complying with NEPA in all matters regarding the OCS Act. | Interior would remain "lead agency" under the traditional definition of the CEQ guidelines for NEPA | NEPA places the responsibility for compliance with the EIS requirement on the Federal agency which initiates the Federal action. Subsec. 21(a) of S. 426, for the purpose of offshore oil and gas development, would amend this provision of NEPA. NOAA, as the agency with expertise in both marine and coastal resources, would assume the responsibility for preparing the EIS. |
| Baseline Studies | Subsec. 21(b) requires NOAA to conduct environmental baseline studies on the marine and coastal environments in consultation with the Secretary. | Subsec. 30(a) requires that the Secretary in consultation with NOAA must make a study of the area prior to leasing to establish environmental baseline data. | Under the present operation of NEPA, BLM as the lead agency enters agreements with NOAA to perform certain baseline studies of the marine environment. BLM has not retained NOAA to perform any onshore impact assessments for input into the EIS. NOAA, since it is not lead agency, cannot on its own initiative perform such studies without a request from BLM. Subsec. 21(b) would provide statutory authority for NOAA to undertake the necessary studies. |
| Scope of Impact Statement | Subsec. 21(c) adopts the list of parameters to be assessed by an EIS as promulgated by CEQ but embelishes them to reflect secondary growth phenomena induced by offshore development and to identify inconsistencies with State coastal zone management. | Subsec. 18(b) provides that certain resource statistics and anticipated extent and rate of development be included in an EIS for the Leasing Program authorized by Sec. 18. | NEPA implicitly requires, and the CEQ guidelines reflect, that socio-economic factors be considered in the EIS. Subsec. 21(c) of S. 426 explicitly requires that factors which may effect onshore growth be considered. Provisions in Subsec. 18(b) of S. 521 require the inclusion of certain resource-related data but is not as comprehensive as S. 426. |

| ELEMENTS | S. 426 | S. 521 | COMMENTS |
|---|--|--|---|
| Monitoring Studies | Subsec. 21(d) requires NOAA to conduct monitoring studies after leasing and development to detect changes in the environment as a result of oil and gas development. | Subsec. 30(b) requires continued post-leasing monitoring similar to Subsec. 21(d) of S. 426. | Post-leasing environmental monitoring is minimal under the present administrative procedure. Both S. 521 and S. 426 provide for continuous monitoring after leasing and development in order to detect adverse environmental effect caused by OCS operations. |
| <u>Adjacent Coastal States</u> | Subsec. 21(f) provides procedures for the Administrator of NOAA to designate "adjacent coastal States" based on the potential impact which may be received as a result of the proposed action for the purpose of comments and petitions for postponement in Sec. 20. | "Adjacent State" is not defined explicitly. | S. 521 does not supply a definition for "adjacent coastal State". S. 426 provides a definition and process for designating "adjacent coastal States" on a basis other than mere geographical proximities, and parallels, to a certain extent, the definition used in the Deepwater Ports Act. |
| <u>Inspection and Enforcement of Safety Regulations</u> | Subsec. 22(b) requires the Coast Guard to develop and promulgate safety regulations for operations in the OCS based on the best available technology. | Subsec. 20(b) directs the Secretary to promulgate safety regulations within one year based on the best available technology. | S. 426 gives the authority and responsibility for promulgating and enforcing safety regulations to the Coast Guard. S. 521 retains a split responsibility for safety regulation and enforcement. |
| <u>Promulgation of Regulations</u> | | | |

| ELEMENT | S. 426 | S. 521 | COMMENTS |
|--|--|--|----------|
| <u>Enforcement of Regulations</u> | <p>Subsec. 23(a) designates the Coast Guard as responsible agency for enforcing the regulations promulgated under Subsec. 22(b). Annual inspections and periodic unannounced inspections are required.</p> | <p>Subsec. 22(a) provides for a joint enforcement effort by Interior and the Coast Guard with inspection requirements similar to Subsec. 23(a) of S. 426.</p> | |
| <u>Liability for Oilspills Reporting</u> | <p>Subsec. 26(a) requires that the person in charge of oil or gas operations must report spills to the Coast Guard upon having knowledge of the spill under penalty of \$10 thousand for failure to do so. Criminal action against the reporting individual may not be based on the information given. Subsec. 23(a) also requires the Coast Guard to investigate all "major" oilspills.</p> | <p>Subsec. 23(a) requires similar disclosure as Subsec. 26(a) of S. 426 but levies no penalty for failure to report and requires only reporting to the "appropriate agency" implying either the Coast Guard or Interior. Similar to S. 426, the Coast Guard must investigate all "major" oilspills and issue a public report within 30 days.</p> | |

| ELEMENTS | S. 426 | S. 521 | COMMENTS |
|---------------------|--|---|---|
| Removal | Subsec. 26(b) directs the Coast Guard to initiate removal procedures unless it may be done adequately by the lessee. Costs incurred by the Coast Guard may be recovered from the "Offshore Oil Pollution Settlement Fund" established under Subsec. 26(c). | No Provision | In the event of an oil spill, quick mobilization and cleanup is necessary. S. 426 provides for the Coast Guard to initiate cleanup procedures similar to the provisions in the Deepwater Ports Act. |
| Strict Liability | Subsec. 26(c) establishes strict liability without regard to fault for any damage which may result to natural resources relied on for economic purpose or subsistence by a claimant from oil spilled by a lessee or permittee. The defenses of war, negligence of the Federal Government or of the claimant may be pled. | Subsec. 23(b) similar to S. 426, established strict liability for damage to natural resources relied on for economic purpose or subsistence by a claimant. The same defenses are available to a lessee. | Both S. 426 and S. 521 adopt the theory of strict liability for oil spills. No proof of negligence, causation or harm need be shown. Valid defenses are restricted to force major and negligence on the part of government or claimant. |
| Limits of Liability | Subsec. 26(c) limits recovery for a single incident to no more than \$100 million, with the lessee assuming liability for the first \$7 million, balance to be derived from the Settlement Fund. Evidence of financial ability is required (Subsec. 25(d)). | Subsec. 23(b) provides identical limits to those of Subsec. 26(c) of S. 426. | |

| ELEMENT | S. 426 | S. 521 | COMMENTS |
|---|--|---|--|
| Fund | <p>Subsec. 26(c) establishes the "Offshore Oil Pollution Settlement Fund". Fund will be maintained by a 2 1/2 cent per barrel surcharge. Collections will cease when the Fund reaches \$100 million and recommence when it depreciates to \$85 million. The Fund may borrow from commercial lenders as required.</p> | <p>Subsecs. 23(b) and 23(d) contain identical provisions for the Fund as Subsecs. 26(c) and 26(d) of S. 426.</p> | |
| <p><u>Remedies and Penalties</u></p> <p>Prosecution</p> | <p>Subsec. 24(a) directs the Attorney General or any U.S. Attorney of the jurisdiction to institute civil action against an alleged violator of any safety regulation at the request of the Coast Guard.</p> | <p>Subsec. 29(a) permits the Attorney General to exercise discretion in instituting cases to enforce provisions of the law at the request of the Secretary.</p> | <p>In some instances there has been a reluctance on the part of the Department of Justice to initiate enforcement actions upon the application of other Federal agencies. The permissive language of Subsec. 29(a) of the Attorney General in Subsec. 24(a) of S. 426 would require the Attorney General to prosecute the case at the determination of the Coast Guard. U.S. Attorneys would also be given authority to prosecute at the jurisdictional level.</p> |

| ELEMENTS | S. 426 | S. 521 | COMMENTS |
|-----------------|---|---|--|
| Civil Penalties | <p>Subsec. 24(b) establishes a fine for violation of regulations or orders at \$50 thousand per day for each day of continued violation. Subsec. 24(d) establishes a \$100 thousand and/or one year imprisonment for willful violation of a rule regulation or order of for falsifying or tampering with monitoring equipment or information.</p> | <p>Subsec. 29(b) establishes a penalty of \$5 thousand for a violation as provided in Subsec. 24(b) of S. 426. Subsec. 29(c) provides the same penalties as set out in Subsec. 24(c) of S. 426.</p> | |
| Citizen Suits | <p>Subsec. 25(a) permits any person adversely affected to commence a civil action on the basis of a violation of a regulation, permit license or lease. Action may be brought against a person, government or against the Secretary for performance of a non-discretionary duty. Subsec. 25(b) requires that notice be given to the Secretary and alleged offender to permit administrative remedies. Also, the Secretary may intervene in any action as a matter of right (Subsec. 25(c)). Costs may be awarded to any party at the discretion of the court (Subsec. 25(d)).</p> | <p>Subsec. 27(a) et seq. permits the initiation of citizen suits similar to the provisions of Subsec. 25(a) et seq. of S. 426.</p> | <p>The citizen suits provisions of S. 426 and S. 521 incorporate the concept of citizen participation in the administrative procedure of Federal agencies. Limited authority to bring suits equivalent to statutory mandamus for non-discretionary actions of the administrator and against violators in the absence of adequate enforcement is provided in a manner similar to the Federal Water Pollution Control Act Amendments, the Noise Control Act of 1972 and the Deepwater Ports Act.</p> |

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| ELEMENT | S. 426 | S. 521 | COMMENTS |
|---------------------------------|--|--|---|
| <u>Research and Development</u> | Subsec. 27(a) directs the Coast Guard to conduct research and development to improve safety of offshore operations where sufficient research is not being undertaken by other government or private agencies. | Subsec. 21(a) directs the Secretary to conduct research and development to improve drilling technology, safety and monitoring of oil and gas operation on the OCS in the absence of on-going research. | S. 426 restricts the authorization to undertake research and development to those activities that would enhance safety of OCS operations. S. 521 permits a broader definition of research to include drilling devices and techniques. |
| <u>Moratorium</u> | Subsection 29(a) would terminate further leasing in all areas where there has been no prior leasing (Frontier Areas) or where geological or environmental conditions make drilling hazardous. The moratorium would continue until the exploratory program was completed and Congress concurred by its silence with a Leasing and Development Plan as provided by Subsec. 29(b)). | No Provision | |

| ELEMENT | S. 426 | S. 521 | COMMENTS |
|----------------------------|--|--|---|
| <u>Coastal Impact Fund</u> | No Provision | <p>Subsec. 26(a) establishes a "Coastal State Fund" under the custody of the Secretary to provide grants to the coastal States impacted by OCS oil or gas development. Subsec. 26(c) provides for grants to be non-matching, full-compensating grants to offset the social, economic or environmental impacts resulting from OCS operations. The Fund would be created by earmarking 10 percent of Federal OCS revenues or 40 cents per barrel whichever is greater (Subsec. 26(d)). An upper limit of \$200 million per year is established and \$100 million is authorized as a base for the Fund (Subsec. 26(e)).</p> | <p>S. 586 (Coastal Zone Environment Act of 1975) provides for a Coastal Impact Fund to be administered by the Department of Commerce to provide 100 percent grants to States which are likely to be impacted by any energy facility if the State is participating in the Coastal Zone Management Act planning grant program. Grants under Sec. 308 of S. 586 could be used for planning, managing, or controlling economic, environmental or social impacts, or for the construction of public facilities and services made necessary by the energy development activity. The Fund would be created by appropriated money rather than earmarked funds from OCS revenue.</p> |
| <u>Strategic Reserves</u> | <p>Sec. 304. requires a study to explore the feasibility of exchanging onshore naval petroleum reserves for offshore strategic reserves.</p> | <p>Subsec. 18(k) requires that areas of the OCS be reserved as a "National Strategic Energy Reserve", and the Secretary is directed to study means for developing and maintaining them in the national interest.</p> | |

APPENDIX II

Written Questions Pertaining to S. 586 Submitted by the Committee on Commerce to Robert W. Knecht, Assistant Administrator of NOAA for Coastal Zone Management, With Responses by Mr. Knecht

QUESTIONS FOR RWK:

1. Mr. Knecht, could you give us a brief overview of the activities and achievements of the states in implementing the Coastal Zone Management Act?

Basically, the states are just completing their first year of program development. As of now, all 30 eligible states are voluntarily participating as are three of the four eligible territories. (The fourth territory is unable to apply because of difficulty meeting the Act's matching fund requirement.) Except for states that were well advanced prior to passage of the Federal program, the first year has been one of gathering basic information necessary to form the basis for decision-making by state and local officials. Some states will complete their programs in advance of the three-year limit. In fact, four completed programs have been submitted for Federal review (two for geographical segments of the coasts) and it is possible that at least one program will be approved by the Secretary of Commerce before June 30, 1975. The initial grants to states (Oregon, Maine, and Rhode Island) were made March 14, 1974. Attached for the record is a copy of "State Coastal Zone Management Activities 1974" summarizing the programs of the individual states in their first years. Also attached is a summary of the status of funding for each of the states and territories currently participating in the program development phase of the program.

2-3. As the states proceed with their programs, have they relayed to you any difficulties that they are encountering? Would you be able to categorize the various kinds of problems that the states might have? For example, would they be geographic or would they be issue-oriented?

Among the problems the states have encountered in their first year of program development have been the following:

- Lack of qualified personnel to design and administer the program, most particularly persons combining a knowledge of marine resources with planning. Some states have had difficulty in filling their positions which has caused delays in the beginning efforts.
- Difficulty in obtaining needed data. In a number of cases, states have found that the type of information they need in order to prepare their coastal management programs was not easily obtained. Much of the research being done on the coastal zone is of a long-term nature and not suitable for immediate use for developing state coastal management programs.
- While there is recognition that many coastal problems are regional in nature, such as the siting of energy facilities, there has been insufficient time and incentive for the states to tackle problems outside their boundaries. By and large, state program personnel are presently preoccupied with developing their own approaches to deal with their coastal zones and are unable to devote sufficient time to activities beyond their borders.
- Adding to the difficulty of preparation of a comprehensive coastal management program for many states is the prospect of imminent offshore petroleum activity. For nearly all states, the prospect of offshore petroleum is a new phenomenon presenting unfamiliar problems. Complicating the situation further is the absence of information on facilities to be required onshore to support petroleum development. Detailed information of this type can't be expected until after exploratory drilling takes place.

- States find a public apprehension that the coastal zone management program means Federal control over land development and a pre-emption of local government rights as well as an intrusion on private property rights. There is a lack of appreciation as yet of the strong "state's rights" nature of the program, whose "Federal consistency" section will give states and local governments significant new leverage in their dealing with the Federal Government. This lever comes about from the Act's provision that once a state program is approved, actions by Federal agencies affecting state land and water resources have to be consistent with the state program, to the maximum extent feasible.

- Intergovernmental relationships have proved to be a difficult area in the initial program development phase. This applies both within state government and between the state and local levels of government. In some states there was uncertainty as to where within the Executive Branch to locate the coastal management responsibility; this has been resolved now, by and large.

4. With all the emphasis on energy facility siting, how do the states feel the Federal Government ought to pursue a solution to the energy problem in relation to their Coastal Zone Management Programs?

The states desire to see the national government establish a clear, balanced national energy program. This would enable states and the public to relate one portion of a proposed solution to the energy problem to the other parts and would offer assurances that any proposed action will contribute to the overall solution. States want Federal activities to be conducted in such a way as to permit state and local government input into the OCS decision-making and, two, so that OCS onshore impacts will be brought into conformity

with state coastal zone management programs. The latter concern suggests that any type of energy facility siting assistance impact aid to be considered by Congress be brought into close harmony with the coastal zone program. The complicated nature of this problem and the need to blend national interests on the one hand with state and local desires suggests that consideration be given to establishing special regional panels or boards to tackle energy siting questions. Such panels could have representatives of the Federal Government to present and national perspective on energy requirements, meeting together with state and local representatives who would discuss their objectives. In the context of a well-conceived national energy program, such panels or boards could serve to reduce the present disharmony between different levels of government on how we should go about meeting our energy requirements.

5. How do the states see themselves participating in the decision-making concerning the timing, location, and size of OCS leasing efforts?

States want a separation of the exploration and field development phases in order to allow a close look at the onshore impacts that will accompany OCS development. The 1975 Governor's Conference resolution on OCS matters adopted February 20 by a vote of 30 to 1 touches on this point in item three (attached). States want to be assured that the "Federal consistency" provisions of the Coastal Zone Management Act apply to OCS operations. States feel they need access to the available data about and the mechanism for decision-making on OCS leasing. States desire to participate in the technical deliberations and the policy decisions which precede a decision to suggest certain OCS territory for lease. States also desire to be involved in review

of the adequacy of existing OCS Orders dealing with safety and environmental safeguards and to be permitted to take active part in consideration of changes or additions of such Orders. States have had a chance to participate in the design of environmental baseline studies sponsored by the Bureau of Land Management for the Department of the Interior. They feel by and large this has been a successful experiment and that as a result, the studies being proposed now are superior to those conducted prior to earlier OCS lease sales. DOI officials have attributed the improvement in the study designs to the input from state representatives.

6. What role do the state see your agency playing in getting their Coastal Zone Management Program ready for implementation?

The main role seen by the states for the Office of Coastal Zone Management, besides that of facilitator of state program development, is to serve in a type of mediator capacity between state government and Federal agencies. OCZM has come to serve as the states' point of contact with the Washington bureaucracy as far as coastal zone issues and procedures are concerned. The office serves as a national clearinghouse for up-to-date information on the entire range of issues affecting coastal management... OCZM is also a source of technical data for the states, providing guidance on such topics as OCS development and Federal mapping resources.

7. What are you doing to encourage other Federal agencies to become cognizant of the Federal consistency requirements, and what are the reactions to date?

OCZM has held extensive discussions with the major affected agencies of the Federal Government with regard to application of the Federal consistency provision of the Act. All agencies have been asked to assign points of contact to handle review of state applications. The office has attempted to work out statements of cooperation with a number of agencies which would describe the general relationship between closely related programs. To date, one such agreement has been signed, that with the Department of Housing and Urban Development (copy attached). OCZM is now discussing agreements with the Environmental Protection Agency, the flood insurance program administered by the Department of Housing and Urban Development as well as a number of other agencies. Our experience to date has generally been positive in terms of how Federal agencies have reacted to the prospect that their future activities will be subject to a state-prepared coastal zone management program. There is, it should be noted, a good deal of uncertainty about this section of the coastal zone act since it is a new concept and untested; also, we have to acknowledge there is some outright opposition to the concept among parts of the Federal Government. But we think it significant that in the case of the first two completed management programs sent to the Department for approval, the involvement of affected Federal agencies has been considerable. This demonstrates they are taking the consistency provision of the coastal act seriously and are in close communication with the state about their views, which is what the act envisioned.

8. Do you think that there is in the spirit of the law an obligation on the part of a Federal agency contemplating significant and enduring action during this time when the states are developing their management programs to coordinate such acts with the state?

Yes, we do feel there is a requirement that Federal agencies consult with the states during the state program development period. And, the reverse is also true--states are charged with the responsibility of working with Federal agencies whose activities are to be impacted by their developing coastal program. In the same spirit of cooperation, we think plans for major new Federal installations, for instance, should be brought to the attention of appropriate state and local officials to make sure they are in conformity with state thinking about the coastal area involved.

9. As far as Federal agency permits and licenses are concerned, do you think that OCS leasing is included in the provision pertaining to "permits and licenses" (Section 307)? If there is uncertainty, shouldn't we make clear that OCS activities have to conform to state programs?

NOAA does believe that leasing would be considered a Federal activity within the meaning and intent of Section 307(c)(3) of the Act. While specific mention is made only of licenses and permits, it seems clear that a similar Federal function, namely that of granting a lease, would be dealt with in the same way. Should there be any question about inclusion of Federal leases in the Federal consistency question, it would be advisable to add language to the section to make this coverage crystal clear. A major function such as OCS leasing by the Federal Government clearly falls within the intent of the Coastal Zone Management Act to bring major Federal actions into conformity with approved state coastal programs. There is an area of uncertainty here that should be brought to the attention of the committee. It is something we are currently attempting to resolve. While the coastal act expressly excludes Federal lands from inclusion in the coastal zone in Section 304(a),

the extent of coverage of acts on those lands which affect the coastal zone outside the Federally-controlled territory is under close examination at the present time.

10. Do you recommend that the development phase of an offshore oil field be treated with a full-scale EIS?

We think it would be most helpful for field development plans to be subject to the environmental impact statement process. This would insure that the onshore impacts of petroleum production are thoroughly examined in public and that the full implications of development of a field discovery offshore are known. The process would aid state and local coastal program personnel in the determination in advance of the types of impacts to be expected. If inappropriate locations are being considered, the impact statement process will bring this to light and provide an opportunity for corrective action. Furthermore, an open impact statement process with public hearings will give the average citizen a chance to be heard on the offshore oil issue.

The difference between an impact statement discussing a field development plan and those that would precede it is that at this later stage, specific dimensions of the offshore fields would be known. This would enable all interested parties to have a chance to discuss more precisely what onshore impacts will occur where than is possible in previous impact statement deliberations. Even site-specific impact statements have to generalize about the extent of support bases required, implications for refinery capacity and a host of related matters because until exploratory drilling takes place, the size of the offshore field is not known.

11. Last week you had a meeting of your Coastal Zone Management Advisory Committee--would you please give us a short overview of your membership, the committee's functions, and whether or not any recommendations came from the deliberations? At this recent meeting I understand they considered accelerated OCS development.

Attached is a list of the current membership of the Coastal Zone Management Advisory Committee. You will note the diversity of the membership. At its most recent meeting, considerable attention was given to the impact on the coastal program of proposed accelerated offshore oil and gas leasing, including an inspection tour of an offshore platform and a flight over a large segment of coastal wetlands which have been impacted by offshore activity. The committee adopted two resolutions regarding OCS matters which are attached herewith. The committee's basic function is to provide the Secretary with advice on policy matters on the implementation of the Act, bringing to this task a wide range of experience and perspective in coastal area matters.

12. Concerning the onshore impact fund, do the states believe that it should be an integral part of the Coastal Zone Management Program to provide balance to the competing uses and comprehensive approach to the development and preservation of the coastal areas? Could it be administered in another agency and still be coordinated with the coastal zone effort?

A coastal impact fund should be an integral part of coastal zone management programs in order to insure sound, integrated planning of needed public facilities with other aspects of coastal development. For such a fund, designed to help states and local governments plan for onshore impacts of major energy facilities, to be administered outside the coastal management effort could lead to haphazard development in the coastal zone. It is the purpose of the Act to provide a comprehensive and balanced approach to all

activities affecting the use of land and water resources; a coastal impact fund for planning and amelioration purposes would have to be coordinated with such a program to achieve maximum public benefit. Facilities built with money from such a fund would naturally have to conform to an overall and approved coastal management program, thus ensuring that they would be consistent with the area's carrying capacity and would be in harmony with nearby activities. The aim of the coastal program is to pull together the varied governmental and private activities that affect the coastal area; a coastal impact fund administered outside the coastal management effort would not only be confusing and duplicative for state and local governments but would fly in the face of a central purpose of the Act--coordinated government action.

13-14. Have the states addressed themselves to the interstate coordination aspect of the Coastal Zone Management Program? Do you believe that energy facility siting or energy production will be more of a regional effort than a state-by-state effort and how would you recommend that we approach such an issue?

States have recognized the interstate aspects of the program, particularly the need to plan major energy facilities on a regional basis, but as has been stated above, have not for the most part dealt adequately as yet with this aspect of the problem. The need to first address pressing in-state problems has kept many states from meaningful regional or interstate activity. There does exist, however, two interstate bodies with coastal zone components; the New England River Basins Commission has established a coastal zone task force and the Great Lakes Basin Commission has a standing committee on coastal zone matters.

It would appear that it is necessary to provide some financial incentives to the states to engage in regional planning efforts. The interstate nature of energy facility siting considerations, for instance, makes it clear that additional that additional effort has to be put forward in this area in order to have the meaningful and comprehensive coastal zone management programs called for in the Act.

15. Mr. Knecht, you went to Scotland with the National Ocean Policy Study and saw how the Shetlands are preparing for the onshore impact of OCS development and to support the economic base there during the anticipated short-term oil and gas development activity. What recommendations can you make for similar types of preparations in the United States, especially in frontier areas?

The Shetland Islands present a unique case study of how to successfully deal with onshore impacts from offshore operations in a rural area. However, because of the special situation and special legislation enacted for the Shetlands, providing the government there with some extraordinary authority, it is difficult to draw too many parallels for the U.S. In a general sense, the Shetlands experience demonstrated that with sufficient preparation and palnning, OCS impacts can be managed. This general point is, of course, applicable to the United States as well. The Coastal Zone Management Act of 1972 provides the vehicle. It is doubtful whether certain of the solutions arrived at in the Shetlands can be used in this country, such as providing for 50 percent government ownership of some major onshore facilities needed to support offshore industry. An excellent background not only to the Shetlands experience but to the full range of impacts in Scotland stemming from the North Sea petroleum discoveries is contained in the book, "Onshore Planning

for Offshore Oil: Lessons from Scotland" published in February by the Conservation Foundation and written by Pamela and Malcolm Baldwin based on their observations last year. The Senate Ocean Policy Study itself has produced an interesting report on the trip to Scotland sponsored by NOFS last year.

16. Your Advisory Committee met in Louisiana where presently OCS production is decreasing by 17% a year. What recommendation would you make concerning the coastal zone management efforts during the phasing-down of OCS production?

One lesson from Scotland worth considering is the attention they are giving to the abandonment phase--that is, the impact on communities undergoing rapid buildup now when, in 20 to 30 years, the oil fields are depleted. Provision for aiding communities at the end of the production cycle has been built into the Shetland approach to OCS activities. With some of the fields in offshore Louisiana now showing decline in production, it is not too early to begin to face this problem in parts of the Gulf. One estimate of the present overall impact of OCS activity on Louisiana is that 340,000 persons, including family members, are directly tied to the industry (Gulf South Research Institute, "Offshore Revenue Sharing," 1974).

17. Would you concur that for the coastal states to wait for a tax on onshore facilities or on oil through-put rather than getting front-end money, would be too late for meaningful planning of the onshore impact of OCS development?

Yes, it is clear that states and local governments will need assistance for planning and for needed new public facilities before and at the beginning stages of offshore activity. Strict dependence on revenue-sharing would pose a problem for states looking for "front-end" assistance.

The major capital costs to be borne by state and local governments take place at the beginning of a development phase. Schools, roads, sewage and water treatment facilities, for instance, all are required at the outset rather than after development and the ensuing population growth takes place. Workers moving into an area to work on offshore platforms will expect to find the basic public services in place. Should states and local governments have to rely solely on revenues from actual production, they would have to provide perhaps major capital investments on their own. This would lead to severe strains in many areas, particularly rural sections without large tax bases or borrowing capacity.

18. We understand that the recent amendments to the Housing and Urban Development Act of 1974 provides an 80% Federal grant for community planning. Do you think this type of grant flexibility would be an asset to the coastal states to enable them to expedite developing and implementing their programs?

As mentioned above, we have one case of a territory being unable to meet the one-third state matching requirement of the Act. Given that another Federal matching program in the planning assistance area, namely, the Housing and Urban Development Department's 701 program, is authorized to provide up to 80% matching funds and the fact that many states use CZM and HUD 701 funds jointly, a change to make the programs consistent would be helpful.



State Coastal Zone Management Activities

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Office of Coastal Zone Management



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STATE COASTAL ZONE MANAGEMENT ACTIVITIES - 1974

INTRODUCTION

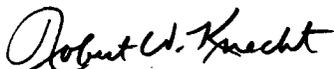
The Coastal Zone Management Act (P.L. 92-583) authorizes the use of Federal resources, both financial and technical, to encourage and assist States in the development and administration of comprehensive management programs for their coastal zones. Responsibility for administration of the Act has been given to the Office of Coastal Zone Management within the Department of Commerce's National Oceanic and Atmospheric Administration.

In 1974 alone, more than \$12,000,000 in Federal and State funds have been committed to State coastal zone management efforts. Moreover, 31 of the 34 coastal States and Territories are participating in the coastal zone management program. This level of attention and funding reflects a nationwide awareness of the problems and conflicts existing in the coastal zone, as well as a growing recognition of the need to find thoughtful solutions to the complex problems stemming from the sharply increasing demands for use of America's limited coastal resources.

There is a clear need for timely and accurate information on the activities of State, local and regional organizations in the realm of coastal zone management. For many reasons, information of this sort is frequently difficult to obtain.

As administrator of the Federal Coastal Zone Management Act, the Office of Coastal Zone Management has been working with all of the coastal States and Territories. From the applications for program development grants on file in this Office, summaries have been prepared of the work programs to be conducted by each State. Each State's summary briefly describes the tasks to be accomplished during the program development phase, past coastal activities in the State, pertinent information already available, the State and substate agencies participating in the program, the lead State agency and the size of each State's grant.

The information contained in this report should enable a comparative analysis to be made of the differing approaches taken by the States. As with our earlier report, "The Status of State Coastal Zone Management Efforts," it also provides a baseline against which progress can be measured. It is anticipated that this report will be updated as future applications are submitted.



Robert W. Knecht
Director
Office of Coastal Zone Management

ALABAMA

GRANT RECIPIENT: Alabama Development Office

OTHER MAJOR PARTICIPATING AGENCIES: Alabama Coastal Area Board (primary policy-making body); Department of Conservation and Natural Resources; Geologic Survey of Alabama

DEVELOPMENT PERIOD: 3 years; beginning June 30, 1974

FUNDING: \$100,000 (Federal) \$150,000 (Total)

CURRENT STATUS:

In 1973, the Alabama State Legislature passed the Coastal Areas Development Act establishing the Coastal Area Board with responsibility for developing, coordinating and maintaining a coastal area program. The Coastal Area Board became operational in late January, 1974, with staff and technical functions assigned to the Alabama Development Office (ADO). Following development of a coastal area administration program, the Coastal Area Board will administer a permit program to regulate coastal activities.

PROBLEMS AND ISSUES:

- Rapid population growth in coastal counties and intensified competition among industrial, commercial, agricultural, and residential developers for the limited land of the coastal area has decreased the amount of land available for public amenities and coastal conservation areas.
- Decreasing supply of high-quality fresh water is rapidly increasing demands for the plentiful fresh water resources of Alabama's coastal margin.
- Inadequately treated wastes from municipal and industrial sources, complicated by runoff from agricultural areas, are contributing to the rapid pollution of coastal waters. Disposal of dredged materials also is a water quality issue.
- Rapid growth of Alabama's shrimp fleet, consisting primarily of boats of 80 or more gross tons, is increasing developmental pressures on the coastal estuarine areas essential as a nursery ground for the shrimp themselves.
- Unregulated development in wetlands has destroyed areas important not only as nursery grounds, but also in stabilizing shorelines from wind and water erosion.
- A plan for increased petroleum production in offshore waters poses a demand for large coastal shoreland areas required to accommodate refinery distribution and other related resources.
- Coastal development has proceeded without regard for the necessity to avoid areas of higher than normal potential for severe damage during tropical storms and hurricanes and the severe flooding that accompanies them.
- Almost one-third of the Alabama shoreline is subject to erosion, particularly that portion lying along the Gulf Coast.

GOALS AND OBJECTIVES:

- To allocate available coastal resources for the economic and social benefit of the State's citizens in a manner which will preserve options and values for future generations.
- To recognize and plan for the capabilities and limitations of the natural systems present in the coastal environment.
- To minimize irretrievable commitments of natural resources in developing a management plan.
- To develop and maintain an educational system to disseminate information obtained through marine and coastal research.
- To establish a coordinated system for handling resource use conflicts, embodying the concepts of multiple use, shared use, irretrievable commitments, capability analysis and available alternatives.
- To facilitate coordination of activities of the various agencies in the coastal area.

OVERALL PROGRAM DESIGN:

Data Acquisition and Evaluation: This work element is designed to acquire and evaluate existing data, reports, plans and policies of State and sub-State agencies involved in the coastal planning process. Insofar as possible, the Coastal Area Board will utilize and build upon currently available data and studies developed by these agencies. Data gathering will be focused in the areas of: industrial development; commercial development; residential development; recreation; mineral extraction; transportation and navigation; waste disposal; fisheries; and agricultural production. Concentrated effort will be channeled into this element over the first 18 months of the program development period with development of broad policy goals in the 10 subject areas the ultimate objective.

Policy Development: State policies are to be evolved and defined with regard to the topics of: coastal zone boundaries, permissible land and water uses, geographic areas of particular concern, priority uses within specific geographic area, and alternate strategies for exerting State control in the coastal area. The Coastal Area Board has appointed a sub-committee to explore the demographic, economic, developmental and biophysical factors related to determination of the coastal boundary which will allow a reasonable extent of control of coastal activities.

Determination of permissible uses will result from study of the capability of coastal lands and waters to accommodate various anticipated uses, as well as the impact of these uses on water quality.

Studies of areas particularly suitable for agriculture or recreation; unique geologic or biological areas; or particularly hazardous areas due to storms, floods and erosion, are planned as a foundation for the designation of areas of particular concern. Priority use guidelines are to be developed on the basis of the analysis of permissible uses and areas of particular concern.

Policy development work is expected to continue throughout the first two years of the program, with most of the effort focused into the first year and a half.

Legal Activities: A continuing review of State coastal legislative needs will be an integral part of the program development period. Goals and objectives will be evaluated in relation to existing agency powers, and the regulatory requirements for coastal zone management will be assessed.

In addition, preparations for public hearings on each principal policy issue of the coastal area plan will be made, with all documents available for public inspection. As policies are developed, legislation will be drafted to accommodate emerging regulatory needs and to sharpen lines of authority and responsibilities. Work in the legal area is expected to continue throughout the program with the major effort occurring before the 1975 and 1977 legislative sessions.

Management Plan Preparation: The results of the previous tasks are to be integrated into a comprehensive plan for the management and development of Alabama's coastal area. The development of the plan will be a continuous process starting early in the first year and building from that point toward formalization in the third year. Upon completion, the report will be reviewed by the Coastal Area Board members, State agency heads and local governmental and public individuals.

PUBLIC PARTICIPATION:

In addition to the public hearings required after the initial drafting of the comprehensive management plan, citizen input will be channeled directly into the policy making process. Educational and planning meetings will be held with such citizen user groups as recreation and tourist interests, housing developers, shipping and seafood representatives, conservation organizations, agricultural interests, and municipal and county officials. Each user group will be asked to select a committee to determine the most beneficial land use, conflicts of use and needs of that particular group. The results of these deliberations will be used as input to the Coastal Area Board's policy formulation sessions. The results of the deliberations can be followed on a regional and State basis by a representative of each user group who will be selected to represent that group on a citizen's advisory council.

INTERGOVERNMENTAL COORDINATION:

Coordination among State agencies involved in coastal planning and management is provided by the membership requirements for the Coastal Area Board. Members include the Directors of: The Alabama Development Office, the Department of Conservation and Natural Resources, Alabama State Docks, the Marine Environmental Sciences Consortium and the Geologic Survey of Alabama. Members are also drawn from the county and city commissions of the coastal counties. A number of other State agencies (e.g. Health Department and Water Improvement Commission) act in an advisory capacity to the Board.

Regional coordination is enhanced by the efforts of the South Alabama Regional Planning Commission. The SARPC is the principal planning agency for the coastal counties of Baldwin and Mobile, with planning activity in the areas of land use, transportation, housing and recreation.

COASTAL ZONE PLANNING AREA:

The Coastal Areas Development Act defines the coastal area as "the coastal waters and adjacent shorelands strongly influenced by each and in proximity to the shorelines of Alabama, and includes transitional and intertidal areas, salt marshes, wetlands and beaches. The area extends seaward to the outer limit of the United States territorial sea and extends inland from the shoreline only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on coastal waters." Coastal waters include sounds, bays, lagoons, bayous, ponds and estuaries.

For planning purposes, the Coastal Areas Board has divided the coastal area into a Primary, Secondary and Tertiary zone. The Coastal Areas Board will have broad management authority over the Primary Zone, which includes all lands at or below 10 feet above mean sea level and all submerged lands seaward to the territorial limit.

In the Secondary Zone, the Board will have authority over "activities significantly affecting the Primary Zone." This zone will include the area between the inland boundary of the Primary Zone and 50 feet above mean sea level.

In the Tertiary Zone, the Board will act in an advisory capacity to local and county governments and the Regional Planning Commission, and cooperate in various planning and implementation studies. The Tertiary Zone extends from the inland boundary of the Secondary Zone to 100 feet above mean sea level.

ALASKA

GRANT RECIPIENT: Division of Marine and Coastal Zone Management of the Department of Environmental Conservation

OTHER MAJOR PARTICIPATING AGENCIES: None

DEVELOPMENT PERIOD: 3 years; beginning May 15, 1974

FUNDING: \$600,000 (Federal) \$900,000 (total)

CURRENT STATUS:

Alaska's Department of Environmental Conservation was created in 1971 by the state legislature. Within the Department, five divisions were established, one of which is the Division of Marine and Coastal Zone Management. This Division is responsible for the development of marine and coastal zone research and for management of the state's total interest in the coastal zone, including the continental shelf. The Division is responsible for developing a plan for conservation and utilization of marine, coastal and estuarine resources, and for reviewing permits for use of the marine environment, wetlands and adjacent uplands.

PROBLEMS AND ISSUES:

- Overexploitation of fishing stocks by domestic and foreign fleets, and destruction of spawning and rearing areas from improper timber harvesting and mining pollution has caused declining fish populations, and the Alaskan fishing industry has suffered economic losses for a number of years.
- Increasing coastal population pressures are adversely affecting the coastal environment by causing the damming of coastal rivers for hydroelectric power, increased stream and tideland alterations, and sewage disposal problems.
- With the start of large scale oil production in the State of Alaska, oil spills have increased in size and frequency, threatening fish, various waterfowl and other animals dependent on the coastal zone for breeding and food.
- Conflicting use demands for the shoreland area are increasing as residential developers, the tourist industry, outdoor recreation interests, and commercial and industrial developers compete for prime coastal locations.
- The coastal zone has traditionally provided the basis for subsistence for many native Alaskan cultures; increasing population and mining and oil industry developmental pressures pose a threat to the continued existence of these cultures.
- The depletion of natural resources and energy supplies in the other 49 states has placed strong pressure on Alaska to develop its resources, making management planning which appears to impede the economic momentum unpopular.

GOALS AND OBJECTIVES:

- To achieve coordinated development and utilization of coastal biological, cultural, aesthetic and energy-related resources without emphasizing any single resource at the expense of any others.
- To manage the state's renewable resources in a manner designed to attain maximum sustained yield.
- To attain optimum time-distribution utilization of non-renewable resources in order to achieve maximum economic and cultural gain.
- To achieve a balance in the human use and natural replenishment of the coastal zone ecosystem at an optimum level.
- To retain the aesthetic, ecological and cultural diversity necessary to maintain economic and ecological resilience to human intervention in the coastal area.

OVERALL PROGRAM DESIGN:A. Developing an Informational Base

Human Uses Study: An assessment of human uses of the coastal area is scheduled as a first year task. Information will be gathered regarding not only physical and economic activities of the coastal population, but also, human attitudes and needs. Questionnaires will be distributed to elicit responses on selected issues and to assess attitudes of various representative segments of the population.

Ownership of shoreland and intertidal areas will be explored with the information analyzed according to whether ownership is for commercial, industrial, or residential purposes, and for water-dependent uses.

The siting of transportation and navigation facilities, waste disposal and sewage treatment centers, petroleum production activities, logging facilities, hydroelectric dams and transmission lines, recreation areas, prime commercial and sport fishing areas, and mining operations will be mapped and analyzed according to shoreline dependency and impact.

Natural Resources Study: A first year assessment will be made of coastal resources under four broad headings - fisheries resources (including critical habitats); wildlife resources; topographic and geologic resource areas; and recreational, historical and scenic resource areas.

Both harvestable fisheries and marine biota and important food chain links will be stressed in the fisheries resources component.

Flyways, feeding and breeding areas of migratory fowl will be charted as critical habitats along with the critical habitats of upland game and marine mammals in an effort to identify potential areas for coastal preserves.

Emphasis will be placed on wetlands and other areas of high productivity in analyzing the coastal topography, along with delineation of sand and gravel deposits, geothermal sites, and natural harbors.

Recreational and scenic resources will be compiled on the basis of local input with attention given to historical and archaeological resource areas.

Coastal Zone Processes: A first year assessment of coastal zone processes will focus on identification of existing and potential hazards to the coastal area. Analysis will be undertaken of shoreline stability and suitability for development, and hydrologic, chemical and biological processes, as well as their roles in waste and nutrient recycling.

The Division of Marine and Coastal Zone Management has already initiated projects to compile maps of shoreline materials, permafrost locations, localized areas of erosion, areas undergoing uplift or subsidence, and major faults and earthquake epicenters.

Meteorologic and hydrologic factors such as winds, rainfall, flooding and the fluvial processes will also be incorporated into this work element.

Boundary Definition: Input from the human resources, natural resources, and coastal zone processes studies will be used to refine the definition of the Alaskan coastal zone for both planning and regulatory purposes.

B. Policy Development

The information gathered and evaluated in the Human Uses, Coastal Zone Processes, and Natural Resources studies will serve as the primary basis for the definition and delineation of permissible uses of coastal zone land and water, leading to identification of areas of particular concern and identification of priority uses. Physical and biological processes of the coastal zone will be assessed with respect to their interactions with the allocation of material resources and with developmental activities both present and planned. Areas of particular concern are to be identified according to an analysis of competing uses and environmental constraints. Finally, environmental-economic analysis of management alternatives will help define high priority uses and establish a ranking procedure.

C. Policy Implementation

Establishment of regulations: An early program development task will be the compilation and review of existing local, state and Federal guidelines and controls in the area of coastal zone management.

Alaska conceives of a two-level management program development process; broad coverage for the entire coastal area, and intensive management for urban and industrial areas and areas rapidly becoming developed. Regionalization of the development program will be evaluated during the first year, with development of regulations for urban and industrial areas and endangered renewable resources receiving priority.

Development of a Management Structure: The organizational structure of the regulatory agency and a method of coordination with others active in coastal planning and management will be developed. A first year program task will be to review existing local and state responsibilities in an effort to further cooperation and coordination between agencies responsible for coastal planning.

Enactment of Supplementary Legislation: During the first program development year, a review of legislation applicable to coastal zone management and planning will be initiated to ensure that the state has the sufficient authority to carry out the desired management program. Where legislative authority is lacking, supplementary legislation will be drafted and sent to the state legislature.

PUBLIC PARTICIPATION:

A series of workshops, displays, and an information dissemination program will be developed to educate the public with regard to the intrinsic values of coastal resources and the need for their effective management.

Questionnaires will be sent to all coastal communities in an effort to gain early public input to goal and policy definition. Through this process, the Division of Marine and Coastal Zone Management plans to develop a method of liaison with local planning boards, harbor masters, conservation groups and other interested local agencies, groups, organizations, and citizens.

In addition, a series of public hearings will be held to acquaint citizen groups, special interest groups, and the public at large with preliminary plans, atlases, and analytical studies, and to receive input for necessary modification.

INTERGOVERNMENTAL COORDINATION:

Coordination with Federal agencies, local governments, communities, and other state agencies will be initiated from the beginning of the program. As an initial step, an advisory committee composed of representatives of state agencies will be established under the chairmanship of the Commissioners of Environmental Conservation.

The Division of Marine and Coastal Zone Management also plans to establish positions for a Federal and sub-state regional coordinator on its planning staff to work directly with the various levels of governmental units with interests in the Alaskan coastal zone.

COASTAL ZONE PLANNING AREA:

A broad coastal zone area has been defined for initial planning purposes with the seaward boundary corresponding to the three-mile territorial limit and the shoreward boundary approximating the upper limit of the coastal zone biome or ten miles from mean high water, whichever is greater. The boundaries will vary in estuarine areas to accommodate extensive portions of the river drainage basins of the estuaries.

CALIFORNIA

GRANT RECIPIENT: California Coastal Zone Conservation Commission

OTHER MAJOR PARTICIPATING AGENCIES: Delta Advisory Planning Council; Department of Navigation and Ocean Development; Department of Fish and Game; Department of Parks and Recreation

DEVELOPMENT PERIOD: 2 years; beginning April 1, 1974

FUNDING: \$720,000 (Federal) \$1,648,653 (Total)

CURRENT STATUS:

At the present time, there are at least three agencies with the primary planning and management responsibilities in the California coastal zone: the California Coastal Zone Conservation Commission (CCZCC); the Bay Conservation and Development Commission (BCDC); and the Delta Advisory Planning Council (DAPC).

The California Coastal Zone Conservation Commission and the six substate regional commissions under its guidance were created in November, 1972, when the California voters approved Proposition 20, the California Coastal Zone Conservation Act of 1972. The Act charged the seven commissions to prepare a coastal zone conservation plan to be presented to the State legislature by December 1, 1975. The CCZCC expects to continue planning efforts throughout 1976 until the Comprehensive Plan is officially adopted by the State legislature. The plan will contain five major components, one of which will contain nine specific coastal resource-use elements. Final responsibility for implementing the comprehensive plan rests with the State legislature. The Act further provided for an interim permit control process to regulate development of that portion of the coastal zone lying between the three-mile limit seaward and 1,000 yards landward of mean high tide. Any person wishing to undertake any development within the permit area must obtain a permit from the appropriate Regional Commission.

The Bay Conservation and Development Commission was established in 1965 as a temporary agency to prepare a management plan for San Francisco Bay. Based on the plan adopted by BCDC in 1969, the State legislature made the Commission a permanent agency responsible for regulating development in and around San Francisco Bay. BCDC has regulatory authority over any "proposed project that involves placing fill, extracting materials or making any substantial change in the use of any water, land or structure" within the Bay or its managed wetlands; with limited jurisdiction over developments within a 100-foot strip inland.

The Delta Advisory Planning Council is an advisory body to local and county governments in five counties comprising the San Joaquin-Sacramento River Delta area. The Council is preparing a comprehensive resource preservation and allocation plan, one part of which will recommend a program for permanent management of the Delta area.

PROBLEMS AND ISSUES:

- Fragmentation of authority in existing coastal resource planning and management with a resultant lack of coordination among governmental entities with coastal planning functions.
- Lack of public awareness and support in evolving acceptable coastal conservation and development policies.
- Lack of a manageable data base, integrating past and present inventories and studies dealing with resource use conflicts and resource allocation.
- Absence of an effective planning and regulatory mechanism for guiding development according to the carrying capacity of the coastal shoreland and marine environments.
- Need for a process to ensure that coastal development occurring during the planning of long-term coastal zone management processes remains consistent with the policy of protection and conservation of natural and scenic coastal resources.

GOALS AND OBJECTIVES:

- To protect coastal property and wildlife, ocean resources, and the natural environment.
- To preserve the ecological balance necessary to prevent further deterioration and destruction of valuable coastal resources.
- To restore, maintain and if possible to enhance the overall quality of the coastal zone environment.
- To ensure the continued existence of optimum populations of all species of living organisms.
- To achieve the orderly and balanced utilization of resources consistent with long-term conservation principles.
- To avoid irreversible or irretrievable commitments of coastal resources.

OVERALL PROGRAM DESIGN:

The CZCC has identified nine individual components taken together will constitute California's comprehensive coastal zone management plan. For each component, the Commission's staff will conduct research and gather information for use by the six Regional Commissions as the "raw materials" for plan development. The Regional Commissions will deal with each component separately, emphasizing the issue posing the greatest problem in each region.

Marine Environment: This component deals with the physical aspect of the coastal zone including the geologic formation of the continental shelf and ocean floor, waves, currents and tides. Analysis is planned of dangers to critical resources and key ecological areas with studies to be made of the effects of oil spills, waste discharges, dredging and onshore construction. In addition, permissible water uses are to be identified and evaluated with emphasis on activities such as commercial fishing, plant harvesting and aquaculture. Finally, specific water areas of critical concern will be identified and the priorities for their use established.

Coastal Land Environment: The relationships between the ocean and the adjacent land are to be the subject of this component. An evaluation will be made of alternative methods of shoreland resource maintenance and utilization. Potential threats to coastal resources are to be identified in conjunction with the designation of use priorities and delineation of geographical areas of particular concern. Scheduled as an early effort is a coastal purchase and leaseback study. The plan element is to result in a description of possible State regulatory approaches with completion scheduled for mid-August, 1974.

Geology: A cause and effect analysis of geologic hazards is planned as an approach to development of protection techniques and policies for regulating uses. The study, expected to be concluded in August, 1974, will include an analysis of potential environmental dangers due to mineral extraction.

Energy: An evaluation of the social and economic responsibility of California in meeting State, regional and national energy needs through coastal energy facility siting is underway. Input into this component, which is to run into December, 1974, is to include an identification of the potential environmental effects of coastal facility siting and recommendations for any needed additional regulations of energy-related activities.

Recreation: An assessment of existing and projected needs for recreation space and facilities is planned for completion in mid-November, 1974. An outline of potential use conflicts and the socio-economic and environmental impacts of recreational activities is also scheduled. Final results are to include an evaluation of the potential for providing an increased public access to the coast and the development of recommendations of areas that should be preserved for recreational use.

Appearance and Design: This plan component will summarize coastal uses contributing to deteriorating visual quality, survey scenic resources of outstanding aesthetic value, and recommend criteria for the design of coastal developments that will maximize visual values. Completion of this plan component is scheduled for mid-October, 1974.

Transportation: The need for ports and water-related industrial sites will be analyzed and an assessment made of their economic and environmental impacts. In addition, this component (scheduled for completion in December, 1974) will examine current systems of land and air transportation in the coastal area and evaluate alternative transportation methods.

Intensity of Development: An assessment is planned of appropriate figures for allowable intensity of development of specific coastal areas. This component will build on the analysis of priorities of uses by evaluating techniques for assessing the major factors involved in determining the capacity of specific areas to withstand developmental pressures. This analysis is expected to continue into February, 1975.

Powers, Funding and Government: A study of sources of tax revenue to provide for permanent management of the coastal zone has been initiated. Further analysis of the capability of existing governmental authorities and

sources of funding are also planned. This component, which will continue into March, 1975, will result in recommendations as to the most appropriate forms of government for permanent management of the California coast.

PUBLIC PARTICIPATION:

The Coastal Commission has chosen to follow the evolutionary concept of developing a single component of the Coastal Zone Conservation Plan at a time, exposing the component to the public through public hearings and securing public opinion and comment at each step along the development process.

The public hearings will follow a comprehensive review by regional samplings of planning directors, city managers, labor union officials, chamber of commerce managers, environmental leaders, etc.

INTERGOVERNMENTAL COORDINATION:

As has been already discussed, there are six Regional Commissions with offices located in Eureka, San Rafael, Santa Cruz, Santa Barbara, Long Beach and San Diego which report to and receive guidance from the State Coastal Zone Conservation Commission. Local government input is assured by the requirement that a supervisor and city councilman from each county making up part of individual Region be a member of that Regional Commission. In addition, coordination is provided by having six representatives from the Regional Commissions as members of the State Commission.

State agency coordination is assured by Governor Reagan's designation of the Secretary of Resources and the Chairman of the CCC as dual State contacts with the U. S. Department of Commerce for implementation of California's coastal zone management program.

COASTAL ZONE PLANNING AREA:

Section 27100 of the California Coastal Zone Conservation Act of 1972 defines the boundaries of the coastal zone as extending seaward to the outer limit of State jurisdiction and extending inland to the highest elevation of the nearest coastal mountain range, except that in Los Angeles, Orange, and San Diego Counties, the inland boundary is the highest elevation of the nearest coastal mountain range on five miles from mean high tide, whichever is a shorter distance.

CONNECTICUT

GRANT RECIPIENT: Department of Environmental Protection

OTHER MAJOR PARTICIPATING AGENCIES: Southeastern Connecticut Regional Planning Agency

DEVELOPMENT PERIOD: 3 years; beginning June 30, 1974

FUNDING: \$194,285 (Federal) \$324,644 (Total)

CURRENT STATUS:

Between 1969 and 1971, the Connecticut Department of Environmental Protection (DEP) was given the legislative mandate to regulate all construction and dredging in tidal, coastal and navigable waters and to develop a permit system regulating wetland use based on an inventory and mapping of the coastal wetlands within the State. The DEP is further responsible for the preparation and periodic updating of a Statewide Comprehensive Outdoor Recreation Plan identifying recreation needs and recommending action to meet those needs. The most recent SCORP was released in 1974.

In addition to SCORP, two other comprehensive plans guide State policies: the Proposed Plan of Conservation and Development, completed in January 1973; and the Master Transportation Plan which is revised annually.

The Proposed Plan of Conservation and Development, prepared by the Office of State Planning, is a synthesis of land use and water resources planning and objectives at the state level. The Proposed Plan includes maps and proposed policies for land and water uses, conservation areas, and urban development opportunities and limitations.

The Master Transportation Plan recommends policy with regard to highway, rail, air, and water transportation in terms of population and land use demands.

To undertake the first year program development work a Coastal Area Unit - a staff of eight technical specialists will be formed. The Unit will be located in the DEP, and will be primarily responsible to the Coastal Area Management Board—a policy-making body consisting of the heads of eight State agencies and representatives of each of the six regional planning agencies in the coastal area.

PROBLEMS AND ISSUES:

- The coastal area is densely populated and highly urbanized with development heaviest along the shorelines of the coast and major rivers - areas which are most prone to flood and hurricane damage.
- Growth pressures and poor water quality are threatening wetlands, beaches, estuaries, and other critical coastal areas.
- Marine-oriented recreational opportunities and facilities are limited and only a very small percentage of the Connecticut coastline is accessible to the public.

- Increasing municipal and industrial waste discharged into coastal waters are threatening aquatic and estuarine ecological systems and commercial and recreational activities.
- Increasing energy demands are resulting in a major push for the coastal siting of petroleum and power facilities, pipelines and transmission lines.
- Authorities for activities affecting the coastal area are fragmented, with responsibilities shared by local, regional, and State agencies without effective coordination or a guiding policy framework.

GOALS AND OBJECTIVES:

- To manage and control industrial, residential, and institutional development in such a manner that benefit to the citizens of the State are maximized and adverse effects upon coastal resources are minimized.
- To preserve and protect areas of unique, scarce, fragile or vulnerable natural habitat, historical or cultural value, and scenic importance.
- To improve existing air and water quality in the coastal areas.
- To provide sufficient and diverse recreational opportunities.
- To minimize the danger of damage from natural disasters and coastal erosion.
- To ensure effective and environmentally acceptable energy facility siting.
- To maximize the productivity and value of fishery and wildlife resources.
- To achieve and maintain a sound data base upon which governmental decision-making and regulatory activities can be based.
- To establish unified policies and standards for coordinated management of the coastal area by all involved governmental units.

OVERALL PROGRAM DESIGN:

Definition of Boundaries: The study of alternative coastal zone boundaries is a first year program development task. Determination of an overall boundary will be made with review and of the need for sub-boundaries delineating areas of critical concern or specifying certain types of management areas. Analysis will include the possibilities of boundaries being a) consistent with political boundaries; b) an easily identified visual line; c) an ecological limit (e.g., limit of tidal action); d) the inland limit of human activities affecting the coastline.

Strategies for Land and Water Use: The Proposed Plan for Conservation and Development, the Comprehensive Outdoor Recreation Plan, the Master Transportation Plan, and various studies at the local, regional, and State levels contain valuable information useful to management plan formulation. Utilizing these sources and necessary independent analysis, a strategy will be developed to determine permissible land and water uses, the priorities of these permitted uses. This analysis, scheduled to run throughout the program development period, will consider: the sources of land and water use pressures; the limitations and values of various coastal resources; and the physical characteristics of the coastal area.

Geographic Areas of Particular Concern: Consideration of areas of particular concern will take place throughout the program development period. Areas which will be explored for possible designation will include: areas of

high ecological value; lands in flood-prone areas; highly urbanized areas; areas with high potential for industrial use; areas with high potential for recreational use; and proposed energy facility sites. Special attention will be given to estuarine areas in the initial development stages.

Administration, Review, and Monitoring of Activities: It is intended that through this work element, a process will be established over the three year period to gather and evaluate information on coastal activities (including construction and dredge and fill projects), plans, and programs of both public and private interests. The goal is to provide a reference and technical work oriented focal point for the administration, review, and monitoring of significant occurrences and changes in the coastal area on a day-to-day basis.

Alternative Management Structures: This task is aimed at filling the need for coordination of planning and management activities at all levels. The goal of this three year effort will be to evaluate past responsibilities and authorities of the various governmental agencies involved in coastal zone management and to evaluate alternative means for exerting effective control over land and water uses. This analysis will include study of both regional, municipal and State roles, and will identify the need for new legislation to strengthen existing authorities.

Regional Pilot Study: A pilot study will be conducted by the South-eastern Connecticut Regional Planning Agency, and will include the shoreline and Thames River areas of the southeastern region of the coastal area. The Thames River is one of the State's largest estuaries and it supports heavy industry, a deepwater port, power plants, and numerous recreational facilities. The region also includes intensely developed lands and rural areas and undeveloped regions. The study is designed to identify resource pressures and conflicts; identify and assess various jurisdictional authorities; examine local needs, desires, and opinions; and identify areas of particular concern and the success of various management strategies. The pilot study is scheduled as primarily a first year effort.

PUBLIC PARTICIPATION:

A series of public meetings in the coastal area is scheduled for the second half of the first year in an effort to publicize the coastal zone management effort and to receive suggestions and gain support for the management program. It is expected that these meetings will follow the format of the series of meetings conducted by the Long Island Sound Regional Study in the spring of 1974.

A citizens' advisory committee is to be established early in the first year of the development program. The function of the committee will be to provide general policy guidance to the Coastal Area Unit and to act as liaison between the public and the program development staff. In addition, the Regional Pilot Study will develop a mechanism for directly involving large numbers of the public in the policy formulation process.

INTERGOVERNMENTAL COORDINATION:

In addition to membership on the citizens' advisory committee, sub-State regional interests are represented by six Regional Planning Agencies within the coastal area who participate on the Coastal Area Management Board. Three of the six regions have adopted regional plans of development; the others have made significant progress toward this end. These agencies will act as liaisons between State and municipal governments, and will be kept in close contact with the Coastal Area Unit.

Two multi-State regional organizations have undertaken technical work concerning the coastal area. Connecticut participates in both the New England River Basins Commission, currently concerned with the Long Island Sound Regional Study; and the Tri-State Regional Planning Commission, which has studied the western portion of the Connecticut coastline.

COASTAL ZONE PLANNING AREA:

For planning purposes during the beginning months of program development, Connecticut's coastal zone is defined as the Connecticut portion of the New England River Basin Commission's Long Island Sound Regional Study area. This initial coastal area includes the areas covered by the State's six coastal Regional Planning Agencies - Southwestern Connecticut, Greater Bridgeport, Valley, New Haven Connecticut River Estuary, and Southeastern Connecticut.

DELAWARE

GRANT RECIPIENT: State Planning Office

OTHER MAJOR PARTICIPATING AGENCIES: Coastal Zone Management Committee; Department of Natural Resources and Environmental Control; University of Delaware College of Marine Studies.

DEVELOPMENT PERIOD: 3 years; beginning June 30, 1974

FUNDING: \$166,666 (Federal) \$250,000 (Total)

CURRENT STATUS:

In June, 1971, the Governor signed the Delaware Coastal Zone Act into law. The Act resulted from the recommendations of the Governor's Task Force on Marine and Coastal Affairs contained in the publication, The Coast of Delaware. The Act bans all heavy industry and port or dock facilities within two miles of Delaware's coastline not in existence at the time of passage of the Act, and requires a permit from the State Planning Office for all other manufacturing uses or expansion of existing heavy industrial uses.

Delaware's continuing concern over unregulated coastal development led to legislation establishing a permit system for the uses of wetlands and legislation to preserve and protect the public and private beaches and barrier dunes in the State.

In 1973, a Preliminary Coastal Zone Plan, as called for by the State's 1971 Coastal Zone Act, was published. In addition, administrative regulations have been developed for the Coastal Zone Act, Beach Erosion Act, and Wetlands Act.

PROBLEMS AND ISSUES:

- The growth in industrial and petroleum-related shipping volume, and the emergence of larger, deeper draft ships has increased both the need for expanded deep-water ports and the risks of serious ecological damage due to spill or accident.
- The Delaware coast is heavily used for resort-related development. Such development is characterized by high-rise condominiums, tourist accommodations, lagooned second home complexes, and mobile home parks, many of which sit on recently filled wetlands or compete for the fragile beach shore area.
- Abuse of the coastal area and incomplete understanding of the coastal recreational/resource relationships has had a detrimental effect on Delaware's attempt to accommodate increasing coastal recreation demands.
- Commercial and sport fishing has suffered in recent years from the effects of pollution, destruction of nursery grounds from dredge and fill operations, and the demands for other uses of the coastal waters.

- Areas critical to the propagation and health of important organisms in the marine food chain, wetlands heavily used by migratory waterfowl, and waters covering and supporting extensive shellfish populations are increasingly threatened by pollutants, competing uses of the coastal zone, and the general intrusion of man into the natural coastal ecosystem.
- Lack of knowledge of the impacts of agricultural uses of the coastal area and demands for non-farm uses of coastal lands have resulted in agricultural concerns being neglected in coastal planning and management.
- Increasing portions of the coastal area are being heavily used for utility transmission and surface transportation requirements with limited understanding of the natural resource base they affect and a lack of construction techniques which lessen environmental damage.
- To date, local and State coastal planning, research, and management efforts have been hampered by a lack of coordination and integration, with legislation vesting authority in various agencies without a centralized policy-guiding structure.

GOALS AND OBJECTIVES:

- To determine the compatibility and appropriate mixtures of uses of the coastal zone.
- To protect the in-shore and marsh areas from pollution and unwise exploitation.
- To develop and implement criteria, standards, and regulations for control of land and water uses within the coastal zone.
- To provide a focus for coastal zone management in the executive branch of the State government.
- To establish a mechanism for interagency and intergovernmental coordination and cooperation in coastal affairs.
- To create a coastal research program to furnish the scientific and technical information necessary for coastal zone management decision-making.

OVERALL PROGRAM DESIGN:

Comprehensive Coastal Zone Reference and Management Information System:
This work item will involve locating coastal zone data sources, receiving the data from the managerial standpoint, establishing the area of coverage of the data and identifying data voids.

An additional sub-task will be to identify and assess the adequacy of present State, regional and local legal authorities in terms of scope (in both geographic and use on activity terms), present administrative procedures and powers, and overlapping and conflicting authorities. This sub-task and the data collection sub-task are scheduled for the first program development year.

The filling of data voids and the creation of data files, information systems, and reference documents will continue throughout the three-year period.

Coastal Zone Boundary Determination: This task involves the assessment of present boundaries being used to describe the coastal zone and the possibility of creating a resource and use-based boundary. The final product, expected at the end of the first year, will be an official planning boundary including the necessary mapping and legal description.

Evaluation of Use Options and Mixes: This task will develop indices for the determination of environmental and economic sensitivity and criteria to assess the relative importance of various factors. Criteria will be developed for such factors as: uniqueness, scarcity, fragility, vulnerability, historical value, scenic importance, recreational value, dependence on coastal location, geological significance, etc. This task is scheduled to run from midway through the first year through most of the second.

Geographic Areas of Particular Concern: Based on the sensitivity matrix, areas which are extremely sensitive to change and the repercussions of changes on the environment, animal and fishery resources, and terrestrial resources will be identified, described and mapped. This effort, which will be initiated in the first year and will run through the second, will develop descriptions of critical areas in a manner suitable for legal adoption, and will be a source of major input into the boundary refinement effort.

Permissible Land and Water Uses: A rating system will be developed in the first year to rank uses of the coastal area based on their overall impacts. Overlay and other techniques will be used to build a visual display of possible conflicts in the uses of land and water areas.

Projection of Demands: A statistical analysis of various types and intensities of use, including both direct demands and demands caused by "triggering effects" will be initiated in the first year. This analysis, in conjunction with an assessment of national and multi-state regional needs will be used in the development of priorities for coastal use, assessment of impacts, and the feasibility of various multi-use mixes.

Testing Alternatives: Alternative mixes of resource uses and intensities will be developed and tested during the second year of the program with the final product to be a report of the impacts and results of various policies for land and water-use configurations.

Designation of Priorities and Preparation of a Plan: This task will make use of the background studies to identify preferred uses of various portions of the coastal zone in plan form and to serve as the basis for regulations and arbitration of conflicts between users. Work on the plan, which will run from midway in the second year through most of the third, will include a high level of public participation, and the plan will be prepared in a form suitable for public review and comment.

Regulatory Mechanisms: This task will develop the necessary legislation and regulations for the State to carry out its management responsibilities. The products of this task will be presented to the Coastal Zone Management Committee, the Governor's Office, and the public for review and comment at the end of the second year before presentation to the State General Assembly.

Organizational Structures: The authorities and capabilities of the various groups presently dealing with coastal zone planning will be evaluated for management purposes. A summary report will be issued to recommend an organizational structure with appropriate legal and other implementing arrangements. This task is scheduled primarily for the third program development year.

PUBLIC PARTICIPATION:

Extensive public participation is to be channelled into the task of defining policies and preparing the comprehensive management plan. Public input is to include hearings, workshops, and seminars to help define goals, objectives, and social values. Various brochures and summaries of plan proposals will be distributed to the general public for educational purposes. Finally, public comment will be reviewed, and a plan will be prepared and presented to the public for review and comment before presentation to the Governor.

INTERGOVERNMENTAL COORDINATION:

At the State level, recent reorganization of the executive branch brought a number of formerly autonomous resource agencies into a single Department of Natural Resources and Environmental Control which now has responsibility over fish and wildlife resources, water and soil resources, mineral resources, solid waste management, subaqueous lands, and the State parks system.

At the local level, participation and coordination is ensured by membership of representatives of the planning agencies of each of the coastal counties and the major metropolitan areas, as well as local and State government representatives, on the 23-member Coastal Zone Management Committee which will advise the State Planning Office and the Department of Natural Resources and Environmental Control during program development.

Delaware also participates in the Delaware River Basin Commission in an effort to coordinate water management policies with the States of New Jersey, Pennsylvania, and New York.

COASTAL ZONE PLANNING AREA:

The planning boundary to be used for initial planning purposes will be the lands and waters situated landward of the State's jurisdiction including those areas which are within the drainage systems of the Atlantic Ocean, Delaware River and Bay, Rehoboth Bay, Indian River Bay, Little Assawoman Bay, and Chesapeake and Delaware Canal.

FLORIDA

GRANT RECIPIENT: Coastal Coordinating Council; Department of Natural Resources

OTHER MAJOR PARTICIPATING AGENCIES: Department of Administration

DEVELOPMENT PERIOD: 3 years; beginning June 30, 1974

FUNDING: \$450,000 (Federal) \$686,000 (Total)

CURRENT STATUS:

The Coastal Coordinating Council (CCC) has been involved in the development of a comprehensive coastal zone management plan for Florida since 1970. As part of its planning function, the CCC published the Florida Coastal Zone Management Atlas in December, 1972. The Atlas explains the approach being used to develop Florida's coastal zone management program and applies this approach in general map form to the entire Florida coastal zone on a county-by-county basis. The CCC approach utilizes three major categories or zones of land and water use: Preservation (no further modification), Conservation (controlled modification), and Development (few if any State level controls). These are designated after consideration of: soil suitability; ecological significance; susceptibility to flooding; historical and archaeological significance; unique features; water quality standards; present land use; and geological factors.

The CCC's latest recommendations focussed on the following areas:
 a) shoreline use priorities; b) shoreline modification practices; c) development in wetland areas; d) residential development; e) regulation of septic tank use; f) solid waste disposal-sanitary landfill sites; g) forest management techniques; h) agricultural practices; and i) amenities, aesthetics, and design. In the important area of shoreline use priorities the CCC recommended that local development policies reflect the following listing:
 1) preservation; 2) conservation (including recreation); and 3) development. Under "development," activities are listed in the following manner: a) military; b) ports and water-related industry; c) transportation (where waterfront location is mandatory); d) utilities (where waterfront location is mandatory); e) water-related commercial; f) residential; g) commercial enhanced by waterfront; h) industry enhanced by waterfront.

In addition to developing components of its comprehensive management plan, Florida is developing regulations under the Environment Land and Water Management Act of 1972. This Act, which provides for control of areas of critical State concern and requires approval of developments of regional impact, is administered by the Department of Administration.

PROBLEMS AND ISSUES:

- Multiplicity of land use demands leading to use conflicts.

- Lack of clear-cut jurisdictional distinctions among the various Federal, State, county, and municipal agencies with coastal zone management functions.
- Lack of interagency coordination.
- Pollution of coastal waters.
- Destruction of the marine environment through beach erosion and dredge and fill projects.
- Lack of knowledge and data on the cumulative effects of development, and the physical and biological parameters of the shore and inshore areas of the coastal zone.

GOALS AND OBJECTIVES:

- To provide for the coordination of all State, Federal, regional, county, and municipal efforts to effectively manage and utilize the resources and features of the coastal zone.
- To provide for the most efficient utilization of coastal resources.
- To provide for the protection, management, and beneficial utilization of water resources in the coastal zone.
- To maintain, restore, and improve air quality in the coastal zone.
- To maintain, increase, and extend over time the productivity and productivity potential of the living and non-living marine resources in the coastal zone.
- To provide for the preservation, protection, restoration, improvement, and enhancement of the upland, submerged land, and biological features of the coastal, estuarine, and marine environment.
- To establish and maintain in perpetuity coastal and estuarine areas of unique value so that their features may be preserved for future educational, recreational, and scientific purposes.
- To provide for recreational opportunities to meet State needs and for the protection and preservation of all significant historical and archaeological sites.
- To provide for the acquisition and dissemination of knowledge about the coastal environment and its resources to promote public understanding of the concepts, values, and issues involved in its management.

OVERALL PROGRAM DESIGN:

Biophysical Environment: An analysis (more detailed than that contained in the Coastal Atlas) is scheduled for the preservation, conservation, and development areas on a regional basis during the first program development year. This effort will involve detailed mapping of the coastal area in terms of ecological significance, soils suitability, susceptibility to flooding, geology, water quality, present use, archaeological and historical significance, and unique features needing protection.

Human Adaptations: Another first year task will be an inventory and analysis of the carrying capacity of land and support services in unincorporated areas on a regional basis. This effort, which will include such parameters as water and power supply, health care and education services, etc., in terms of location and ability to serve additional population demands, will serve as an additional basis upon which local units can determine overall impacts of proposed developments.

In addition, a review and analysis of areas revealed by the biophysical analysis as "conflict" areas is planned. Conflict areas will be categorized and analyzed according to magnitude and possible solutions.

Studies planned for the second and third years will include a coastal land ownership analysis and an economic analysis of the coastal area.

Environmental Quality: Analyses of existing water and air quality, land and open space, amenities and aesthetics, and environmentally stressed areas in the coastal zone are planned during the program development period. The goal of the environmental quality analysis will be to develop the criteria for assessing environmental impacts of proposed uses and to develop recommendations to ensure that future coastal activities result in minimal adverse environmental impacts.

First year efforts will focus on an inventory of man-induced coastal problems and conflicts, especially in the areas of shellfish population maintenance and water use.

Planning Analysis: Data collected from the studies conducted in the areas of environmental quality and carrying capacity will be evaluated in the light of biophysical inventories to develop guidelines and recommendations for planning by local units. Local planning policy, needs and capabilities will be determined during the first year by means of an analysis of regional, county, and local plans, planning problems, and growth policies. Planning documents will be analyzed according to jurisdictional area, year of adoption (or publication), enforcing body, general objectives, implementation method, relationship to coastal zone management, and impact on coastal activities. This analysis is expected to supply the background against which planning recommendations can be made.

Management Analysis: Several studies are planned in an effort to develop: a) an organizational format for Florida's management of coastal activities; and b) recommendations for the laws and ordinances necessary for implementation of the comprehensive management plan. A first year study will be to identify and assess, by region, the existing legal authorities over land and water uses in the coastal zone. With the conclusion of the study, data of existing agency administration and jurisdiction will be used in conjunction with the output of the legal analysis to determine areas of mutual support or conflict upon which organizational and legislative recommendations can be made as to alternative institutions and controls.

Information and Data Services and Support: In an effort to provide a strong informational system to respond to local as well as State coastal zone planning and management needs, the CCC plans to expand its library and newsletter services and to develop supporting technical capabilities in the areas of photo and remote sensing interpretation and application and computer data management.

PUBLIC PARTICIPATION:

A Citizen's Advisory Committee will be created to provide public input into the planning process. The Committee's membership will include representatives of each of the planning regions from areas of commercial fishing, tourism, the construction industry, conservation groups, scientific groups, industry, business, and the general public.

The Citizen Advisory Committee will work closely with the regional planning councils through the CCC's regional planning coordinators in an effort to serve as a liaison between the Council and the coastal committees.

INTERGOVERNMENTAL COORDINATION:

A Governmental Advisory Committee (a separate entity from the Citizen's Advisory Committee) will provide State level coordination in coastal zone management policy-making. This Committee will include representatives from all State agencies involved in coastal zone activities as well as members of the State legislature.

The Regional Planning Coordinators will provide coordination with the county and municipal governments in the regions to which they are assigned, working closely with, and if possible being attached to, the staffs of the 10 Regional Planning Councils in Florida's coastal area.

Finally, with the addition of an Agency Coordinator, an effort has been made within the CCC's staff itself to ensure a close working relationship is developed with governmental units at all levels during the program development period.

COASTAL ZONE PLANNING AREA:

As an initial planning boundary, to be later assessed and refined, the CCC will use the coastal area as delineated in the Florida Coastal Zone Management Atlas. This area includes the region outlined by the boundaries of Florida's 30 coastal counties.

GEORGIA

GRANT RECIPIENT: Office of Planning and Budget

OTHER MAJOR PARTICIPATING AGENCIES: State Department of Law; Department of Natural Resources

DEVELOPMENT PERIOD: 3 years; beginning June 30, 1974

FUNDING: \$188,000 (Federal) \$303,400 (Total)

CURRENT STATUS:

The Coastal Marshlands Protection Act, passed in 1970, regulates dredging, draining, removal or other alterations of coastal marshlands through a permit system administered by the Coastal Marshlands Protection Committee within the Georgia Department of Natural Resources.

At the State level, the Governor created the State Interagency Task Force, composed of 12 members of State and local agencies, to initiate planning and policy-making for coastal zone management. At the same time, a Task Force was created within the Georgia Department of Natural Resources (DNR) to provide technical assistance to the interagency group. The DNR has conducted a three-year inventory of Georgia's estuarine areas, a coastal fisheries management program and study, a wildlife habitat and resources inventory, and is nearing completion of an inventory of coastal geology and resources, and preparation of a topographic map.

Two local planning agencies, the Brunswick-Glynn County Joint Planning Commission (BGCJPC) and the Chatham County-Savannah Metropolitan Planning Commission (CCSMP) and one regional planning agency, the Coastal Area Planning and Development Commission (CAPDC) have active planning programs within their areas of jurisdiction. The BGCJPC and CCSMP carry on programs with regard to sand dune protection, flood plain zoning, marsh conservation, and storm drainage and protection.

The CAPDC, composed of representatives of eight counties in the coastal area has recently conducted the following planning studies: an Areawide Major Thoroughfare Survey and Analysis, an Areawide Solid Waste Survey and Analysis, an Areawide Base Map Survey and Analysis, and an Economic Base and Population Study.

PROBLEMS AND ISSUES:

- Lack of intergovernmental cooperation, public involvement, and coordinated policy to guide decision-making relative to the coastal zone.
- Increasing demand for development without comprehensive regional plans to guide such development.
- Current taxation policies which assess coastal resources on the basis of developmental potential.

- Inadequate water treatment facilities and decline of water quality, including salt water intrusion in the aquifer.
- Need to protect fragile natural ecosystems from human interference.
- Lack of natural resources data, and uncertainty about the legal status of State action in the coastal zone.
- Need to protect vital beach and sand dunes along the entire coast.
- Underutilization of coastal resources for economic development.
- Corporate ownership of large tracts of coastal land.
- Lack of legislation to deal with oil spills and related problems.

GOALS AND OBJECTIVES:

- To improve decision-making affecting the coastal zone by formulating policies, developing comprehensive plans, and involving the public in the decision-making process.
- To increase intergovernmental cooperation and coordination in an effort to develop uniform policies, plans and regulations.
- To protect fragile coastal ecosystems with particular attention to compatibility of uses with the resource base and to the protection of beaches, sand dunes and productive marshes.
- To improve water quality by providing adequate water and sewage treatment facilities and by protecting the aquifer from depletion and salt water intrusion.
- To determine the feasibility of assessing land for taxation purposes on the basis of environmental constraints, rather than development potential.
- To increase opportunities for coastal residents to raise their standard of living, with particular attention to raising the per capita income and encouraging economic development of coastal resources within proper environmental constraints.

OVERALL PROGRAM DESIGN:

Natural Resource Analysis: During the first program development year, following inventories and analyses will be initiated: (a) the mapping and evaluation of the vulnerability of coastal land resources; (b) the identification and mapping of valuable and vulnerable resources in coastal waters; (c) assessment of the compatibility of current, projected and proposed land and water uses; and (d) assessment of the impact of various types of human activities upon basic coastal ecosystems. One interesting facet of the water resources study will be to locate and analyze offshore sand bars critical to beach nourishment. The product of this series of analyses will be employed in the development of permissible uses, the designation of areas of particular concern, the determination of priority uses, and ultimately the definition of management boundaries.

First year inventories will contribute background information to be used in development of a "Handbook for Coastal Zone Development" containing site-specific guidelines and suggestions for coastal developers and for local government. The Handbook will be designed to provide a technical basis for formulating regional policies with special focus on the utilization of land in ways compatible with the preservation of natural resources.

Land Use and Economic Analysis: This task is designed to consolidate existing and newly-gathered land use and economic data; to explore alternative economic development policies with respect to the natural resource base; and to formulate alternative land demand projections based on preferred development policies. During the first year, a land use survey and mapping effort will be conducted using existing information supplemented with aerial photography. Particular attention will be focused on the identification of land use problems, including areas where present use is incompatible with land capabilities or other uses. During the first year, information will also be gathered concerning existing and projected population, employment, and economic trends and the related demands on coastal resources.

Legal Analysis: An analysis of current State and local means of control and an assessment of alternative statutory controls and regulations will be the focus of this work element. During the first year, a legal inventory and analysis of existing local ordinances, and State statutes, constitutional provisions, legislative enactments, and regulations relevant to the management of land and water uses and activities will be conducted.

During the second and third development years, emphasis will be placed on the development of statutes and amendments to fill the gaps in authority identified during the first year.

Management Organizational Analysis: This work element, to be completed during the second year, is designed to assess alternative arrangements for organizing the management program. Sub-tasks will be structured to analyze the following management "mechanisms": (a) policy mechanisms for program development; (b) policy mechanisms for program administration; (c) regulation mechanisms; (d) use/activity decision mechanisms; (e) planning/evaluation/feedback mechanisms; (f) enforcement mechanisms; and (g) adjudication mechanisms.

The Interagency Task Force, with the assistance of the Office of Planning and Budget, will have responsibility for guiding this work element. The Task Force will be responsible for seeing that alternative recommendations relative to each "mechanism" are developed, reviewed in public workshops and with local and State officials, and submitted to the Governor and General Assembly.

Key Element Identification: This work element will pull together the information gathered through the preceding tasks to identify permissible uses, designate areas of critical concern, determine priority uses within specific geographic areas, and to develop boundaries of the coastal zone. The second program development year will be devoted to formulating alternative policies for these key elements, obtaining public input, and generating final policy recommendations for submission to the Governor's office.

PUBLIC PARTICIPATION:

The public involvement program during the first year will focus on the development of a Citizen Participation Pamphlet which will serve to provide a uniform approach by which the local planning agencies can handle their individual programs to involve the public in policy formulation.

The major effort to involve the public in program development will consist of a series of workshops during the second program development year. It is anticipated that workshops will be held in several coastal locations to determine policy for each of the key elements identified in the planning process. A Coastal Zone Management Communication Forum will be assembled. The Forum will consist of county commissioners, city councilmen, the chairmen of the local planning commissions, members of the State Senate and the General Assembly representing coastal counties, members of port authorities, and citizens representing both economic and conservation interests from each coastal county. A series of discussion meetings between the Forum and citizen committees and policy groups are planned to keep these groups informed on the progress of program development, and to gain feedback on specific policies.

INTERGOVERNMENTAL COORDINATION:

The Director of the Office of Planning and Budget will act on behalf of the Governor to coordinate the program development activities of the various State and sub-State agencies involved in coastal zone management.

Coordination among the various State and regional agencies involved in coastal planning will be assisted by the formation of a Coastal Zone Management Technical Committee. The Technical Committee, composed of representatives of 10 State agencies, the two local planning commissions (BGCJPC and CCSMPC) and the regional planning and development commission (CAPDC) will meet frequently in coastal locations to guide the program development phase of the coastal zone management program.

In addition to the Technical Committee, a Federal Agency Council, composed of representatives of the Federal agencies with interests in the coastal zone and the Coastal Plains Regional Commission will be established. The Council's purpose will be to assure that the interests of Federal and multi-State agencies will be reflected in the management program.

COASTAL ZONE PLANNING AREA:

For planning purposes, the area comprising Bryan, Camden, Chatham, Glynn, Liberty and McIntosh counties, with seaward extension to the three-mile limit of the territorial sea, has been designated as the coastal zone.

HAWAII

GRANT RECIPIENT: Department of Planning and Economic Development

OTHER MAJOR PARTICIPATING AGENCIES: Department of Land and Natural Resources; University of Hawaii

DEVELOPMENT PERIOD: 3 years; beginning June 30, 1974

FUNDING: \$250,000 (Federal) \$375,000 (Total)

CURRENT STATUS:

In 1965, the Department of Planning and Economic Development (DPED) published "Hawaii's Shoreline," a three-volume study providing land-use and geologic maps, as well as data concerning shoreline characteristics, pollution problems, and zones of danger due to tsunamis, erosion, and over-development. This study has remained an important and basic document in planning and managing Hawaii's coastal environment.

In 1969, "Hawaii and the Sea, A Plan for State Action," was published by the Governor's Task Force on Oceanography. The Task Force's report made a series of recommendations for a five-year marine action plan. Five years later, a Hawaii and the Sea - 1974 Task Force was formed. The 1974 Task Force report makes more than 70 recommendations for State action. Some of the more important recommendations are: 1) to define a legal position for the State in the jurisdiction and control of its manganese industry; 2) to prepare legislation for an inter-island marine transportation system and to include a marine rapid transit component as an alternative to a fixed roadbed system; 3) to emphasize goals and Hawaii's "uniqueness" in preparing a coastal zone management plan; 4) to accelerate plans for the diversion of all sewage treatment effluent from Kaneohe Bay; 5) to increase technical staffing of the Marine Affairs Coordinator's Office and establish an advisory council; and 6) to require environmental impact statements for all development on public and private lands within 500 feet of the shoreline setback line (40 feet above the vegetation line).

The Hawaiian Legislature passed Act 164 in 1973, instructing the DPED to prepare a comprehensive coastal zone management plan. This plan will be developed as an integral part of the State's overall land use plan designed to implement the Hawaii Land Use Law of 1968. The Land Use Law divided the State into Conservation, Urban, Rural, and Agricultural Districts. Development is stringently controlled by the Department of Land and Natural Resources (DLNR) in those areas designated Conservation Districts. In 1970, a statute was passed adding a 40-foot strip of shoreland around all of the Hawaiian coasts to the areas designated as Conservation Districts.

PROBLEMS AND ISSUES:

- Need to integrate prospective coastal zone planning with ongoing land use planning, and to define coastal zone management boundaries when there is no point of land in Hawaii more than 29 miles from the sea.
- Need to develop improved municipal and industrial waste and surface runoff pollutant treatment methods to enhance the quality of coastal waters, especially in areas of poor tidal flushing such as Kaneohe Bay.
- Need for improved State-level authority to deal with the conflict between resort and suburban shoreline uses and the lack of public access to Hawaii's shorelines, especially along the intensely used shores of urbanized regions.
- Need to develop and enforce sandmining controls to protect beach sand and sand areas needed for beach replenishment from being used for the construction of homes, resorts, and commercial buildings.
- Need for increased research and State policy guidelines on the proper development of Hawaii's underwater manganese deposits and fisheries industry.
- Lack of regulatory authority over unique areas having a particularly delicate ecological balance where all uses should be restricted.
- Lack of a sufficient information base to provide a decision-making framework for the siting of ocean-based energy complexes and deepwater port facilities which will have significant landside impacts.
- Need to establish criteria for determining environmental carrying capacity and overload characteristics.
- Need to re-examine present institutional arrangements and design an organizational framework to provide coordinated management without fragmentation or overlap.

GOALS AND OBJECTIVES:

- To preserve and improve the quality of the marine and coastal environment for recreation, the conservation of natural resources, aesthetics, and the health and social well-being of the people of Hawaii.
- To promote the orderly growth of commerce, industry, and employment in the coastal zone in a manner compatible with the goal above.
- To promote the orderly and responsible use and development of coastal and marine resources.
- To encourage the effective use of scientific and engineering resources of public and private agencies affecting coastal zone management activities.
- To promote cooperation and coordination among governmental bodies and public or private organizations in developing related public policy.
- To provide an overview of the complicated interrelationships between land use and the marine environment as they apply to a statewide coastal management system.

OVERALL PROGRAM DESIGN:

Boundaries of the Coastal Zone: An analysis of inland coastal zone boundary alternatives will be conducted during the first year. This analysis will include consideration of biophysical factors, shoreline impacts, and institutional factors. Of particular importance will be the need to achieve the best balance between the constraints of Hawaii's land use legislation and the anticipated national land use legislation. Final boundary determination and adoption is expected during the second or third year.

Permissible Land and Water Uses: An inventory, mapping, and categorization of land and water uses will be initiated during the first year. Building upon the inventorying effort will be the development and application of criteria and indices necessary to assess the compatibility with and impact of various uses on the coastal environment. An issue and policy analysis and an environmental carrying capacity analysis will be important elements of this task.

Permissible use definition will be a lengthy task expected to run into the third year. Particular emphasis during the first year will be placed on those coastal resources limited by supply or accessibility. A particular product planned in addition to the necessary maps, models, atlases, and reports, will be the development of a data acquisition and analysis system suited to Hawaii's coastal management needs.

Geographic Areas of Particular Concern: During the first year the basic data and criteria necessary to identify specific geographic areas of particular concern will be developed; recommended areas will be inventoried and mapped. Actual designation of areas will be carried out during the end of the second or in the third program development year.

A related effort to be initiated in the first year and carried on throughout the program development period will be an inventory and analysis of potential estuarine sanctuaries and other environmentally sensitive areas, to include specific recommendations as to treatment, acquisition, and/or management.

State Control Over Land and Water Uses: A legal analysis will be conducted in the first year of alternative land and water use control mechanisms. The analysis is to include consideration of relevant constitutional provisions, legislative enactments, regulations, and pertinent judicial decisions. A final report will be made to the Governor and Legislature on recommended control mechanisms and suggested executive or legislative initiatives.

Designation of Priority Uses: A first year task will be to determine State and county goals, priorities and objectives for the preservation and orderly development of specific areas and resources within the coastal zone. A parallel task will be to identify planning and management problems and use conflicts in an effort to synthesize appropriate priorities and policies to be integrated with the State and county planning and management programs in the second and third program development years.

Organizational Structure: An analysis of institutional options and structures to carry out an effective and coordinated management program will be initiated during the first year. Particular emphasis will be given to the development of mechanisms for continued public awareness and review, as well as mechanisms for intergovernmental coordination and public access to information and research materials generated during the planning process. A series of recommendations with regard to organizational structure, the role of citizen advisory committees and public hearings, and the establishment of an appropriate information center are expected during the second program development year.

PUBLIC PARTICIPATION:

The design of Hawaii's coastal planning program will draw heavily on the recommendations contained in the report "Hawaii and the Sea - 1974." The report was developed by a committee of marine-oriented professionals from government, industry and academia, and received substantial public input through study groups and workshops.

The question of what future mechanisms will provide for adequate citizen involvement will be addressed in detail during the first program development year. Mechanisms which are expected to be included are: citizen and policy advisory committees, public hearings and informational meetings, and workshops and meetings with public interest groups. Particular emphasis will be placed on institutional vehicles designed to provide continuous public review of the decision-making process.

INTERGOVERNMENTAL COORDINATION:

The DPED exercises a number of coordination functions at the State level including administration of the State clearinghouse process and the continuous updating of the State's Overall Program Design-- a planning document which identifies and integrates most of Hawaii's major planning activities in a multi-year time frame.

Hawaii's four counties - the city and county of Honolulu and the counties of Hawaii, Kauai, and Maui - will be direct participants with the DPED in each of the six program elements identified as the framework for the Overall Program Design. Through their planning commissions and county councils, the counties already maintain major roles in regulating land use in areas designated as urban, and have joint authority with the State in rural and agricultural districts under the State's Land Use Law. There are no incorporated cities in Hawaii.

New approaches to organizing and expanding inter-governmental coordination will be examined during the first year work program. Methods will be assessed ranging from consolidation of significant current functions to the possibility of establishing a separate cabinet-level agency.

COASTAL ZONE PLANNING AREA:

For planning purposes, the State considers its entire land area as the coastal zone. Nearly one half of the State's total area lies within

five miles of the shoreline and there is no point more than 29 miles from the sea. Thus, activities in all areas of the islands can be said to have a direct impact on coastal waters and lands.

ILLINOIS

GRANT RECIPIENT: Illinois Department of Conservation

OTHER MAJOR PARTICIPATING AGENCIES: Department of Transportation, Division of Waterways; State Geological Survey; Northeastern Illinois Planning Commission

DEVELOPMENT PERIOD: 3 years; beginning June 30, 1974

FUNDING: \$206,000 (Federal) \$309,000 (Total)

CURRENT STATUS:

The Illinois Department of Transportation reviews and issues permits for any filling, dredging, or construction of bulkheads, placement of outfall structures, or other alteration of the natural shorelines of Illinois' public waters, including Lake Michigan. As a step toward meeting their mandate to "preserve and protect" the public waters, Illinois conducted a cooperative shore erosion study with the U. S. Army Corps of Engineers in 1946 and continued lake observations until 1962.

To improve public access and shoreland recreation opportunities, the Department of Conservation is in the process of acquiring the Lake Michigan shoreline from the Illinois Beach State Park north to the Wisconsin border for addition to the State park.

The city of Chicago, which covers nearly the entire area of Cook County, one of Illinois' two coastal counties, has developed a lakefront management plan and protection ordinance. The protection ordinance makes it unlawful for any landfill, excavation or construction to take place within the protected district without the approval of the Chicago Plan Commission. The Commission is guided by the objectives of improving water quality in Lake Michigan, promoting public access and recreational use of the shorelines, and prohibiting construction which would cause environmental or ecological damage to the Lake or its natural and living resources.

Finally, the Northeastern Illinois Planning Commission (NIPC) has undertaken a series of planning studies concerning Illinois' coastal area. Recent products include: a Regional Open Space Plan; a Regional Wastewater Plan; a Regional Water Supply Report; and a technical report, "The Water Resource in Northeastern Illinois, Planning Its Use."

PROBLEMS AND ISSUES:

- Because coastal land use decisions are now made entirely at the local level, State and regional needs are often ignored.
- The rights and needs of public, as opposed to private, interests frequently conflict.
- There is increasing competition for available land throughout the coastal area.
- The State does not have adequate funds to meet perceived needs for land acquisition, recreational development, and erosion protection structures.

- The problem of defining a meaningful coastal zone boundary is increased by the heavily urbanized nature of the area.

GOALS AND OBJECTIVES:

- To preserve, protect, develop, and where possible to restore and enhance the resources of the shorelands of Lake Michigan.
- To encourage and assist local and regional governmental and private bodies to recognize and effectively exercise their responsibilities to develop and implement local land use management programs for the shoreland areas.
- To ensure that full consideration is given to ecological, cultural, historic, aesthetic and social values as well as to the needs of economic, urban, and industrial development in the development of Illinois' coastal zone management program.
- To encourage all Federal, State and local agencies concerned industries, and private groups engaged in activities effecting Illinois' shorelands to cooperate and participate in conducting this shorelands management program.
- To encourage the general public to become aware of the need for wise management of shoreland resources, and to maintain the educational processes required to effect strong public involvement in the program development process.

OVERALL PROGRAM DESIGN:

Collection and Compilation of Existing Data: A major effort during the first program development year will be the identification, compilation and assessment of physical, legal, and local land use data presently existing within the State.

Physical data to be collected will include: a) studies of offshore and onshore topography; b) locations of existing groins, bulkheads, piers, breakwaters and other types of erosion protection works; c) locations and uses of public and private property abutting Lake Michigan; d) all data available on archeological and historical sites, environmental areas, and scenic and aesthetic points located in the coastal zone; and e) all studies available relating to erosion control measures and structures.

The NIPC will be responsible for collecting, compiling, and analyzing existing statutory and case law relating to coastal zone management as a foundation for developing a management program. Emphasis will be placed on public versus private property rights with regard to the bed, the waters, and the shorelands of Illinois' Lake Michigan shorelands.

The NIPC will also have lead responsibility for the collection and assessment of the zoning regulations, sub-division codes, building ordinances, and land use controls of each individual lake front community.

Development of New Physical Data Required: To fill the gaps anticipated in the existing coastal zone data base, a limited number of new studies will be initiated during the first year. Two mapping projects--topographic mapping of the shoreland and bathymetric and sediment mapping of the near-shore--are to be completed during the first year.

A special study based upon computer analysis of wave and weather data and aerial photographs is planned for the purpose of examining the effects of man-made structures on shore erosion. Related shoreline erosion studies will be undertaken including: foundation and earth material factors affecting shore stability; wind, wave and current effects on sediment transport; littoral sediment drift; and bluff erosion. Through the auspices of the State Water Survey, the Chicago District Corps of Engineers, and the State Geological Survey, a series of littoral environment observation stations will be established so that daily measurements can be made.

Specific areas and sites of particular concern along the Illinois shore of Lake Michigan will be identified by the Department of Conservation working with municipal units and the State Museum and State Historical Society. Areas studies will include archaeological and historical sites as well as fragile natural areas.

Legal Restraints and Solutions: A second year effort, which will build upon the compilation of existing legal data, will be to develop alternative approaches and methods for dealing with the legal restraints identified, and to construct the necessary framework and authorities upon which to base a sound management program.

Management Plan Development: Efforts during the third year will be primarily centered on the synthesis of the management plan and the development of the legislation necessary for its adoption. State legislators, State, local and municipal agencies and the public will be looked to for input in development and assessment of alternative strategies for a management plan. Once a final mechanism is selected, the implementing legislation will be drafted for introduction into the General Assembly.

PUBLIC PARTICIPATION:

The public information/participation/education program will be conducted by local communities, with the State and the NIPC providing technical staff and supplies. To assist the NIPC in maximizing public involvement, a Shoreline Advisory Committee, composed of two representatives from each of the 14 municipalities along the Lake Michigan shore, has been organized. The Committee will work with the NIPC and the municipalities on field surveys, land use studies, and public meetings and hearings.

INTERGOVERNMENTAL COORDINATION:

The Great Lakes Basin Commission assists in providing the overall coordination required in developing the coastal zone management programs of the eight Great Lakes States.

At the State level, two mechanisms will be developed to ensure coordination, consisting of (a) a State Coastal Zone Advisory Council composed of the heads of the Departments of Local Government Affairs, Conservation, Transportation and Environmental Protection; and (b) the State Projects Task Force which would coordinate the daily technical details and input from the various State agencies involved in the program development process. The Task Force will be composed of technical members of 11 major State agencies.

Local level coordination will be a primary task shared by the Department of Local Governmental Affairs, the NIPC, and the Shoreline Advisory Committee.

COASTAL ZONE PLANNING AREA:

For planning purposes, the State has included the entire corporate limits of the communities abutting Lake Michigan and the second tier of communities adjacent to the coastal communities in order that suitable "corridors" through these communities to areas planned for intensive recreational use can be planned. During the program development process, it is expected that the coastal zone will be divided into four separate zones with various levels of control, including: a water zone, a beach zone, a use-impact zone, and a compatibility development zone.

LOUISIANA

GRANT RECIPIENT: Louisiana State Planning Office

OTHER MAJOR PARTICIPATING AGENCIES: Louisiana Wildlife and Fisheries Commission, Louisiana Coastal Commission, Louisiana State University Sea Grant Program.

DEVELOPMENT PERIOD: 3 years; beginning June 30, 1974

FUNDING: \$260,000 (Federal); \$394,090 (Total)

CURRENT STATUS:

Six major State agencies are involved in Louisiana's coastal zone planning and management activities. The Wildlife and Fisheries Commission reviews water quality and impacts on fish and wildlife in the coastal zone. The Department of Public Works is responsible for water resource development, drainage and flood control. The State Land Office protects State land interests, as does the State Mineral Board. The Board of Health is responsible for sewerage disposal. Oil and gas activities are regulated by the Department of Conservation. There are also numerous State boards, commissions and special districts regulating other activities in the coastal zone.

The Louisiana Advisory Commission on Coastal and Marine Resources completed "Louisiana Government and the Coastal Zone" in 1972, and Louisiana Wetlands Prospectus in 1973. Both contain recommendations on coastal zone management organization at the State level. The new State constitution enacted in 1974 mandates the reorganization of Louisiana's State agencies into 20 departments.

PROBLEMS AND ISSUES:

- Nonrenewable resources (oil and gas, transportation, land development, and flood protection) have been developed in a manner which has reduced the renewable resource base, particularly the marsh and estuarine resources.
- Marsh areas supporting fisheries and recreation have been significantly decreased by unrestrained urban expansion, flood control projects, expansion of the transportation system, agricultural activity, saltwater intrusion and pollution.
- A deep draft terminal planned for offshore Louisiana airport construction and major recreational development will cause substantial landside environmental and social impacts.
- Fresh surface water is in short supply in some parts of the coastal zone. The rate of salt water intrusion into previously freshwater

strata is increasing, and alternative freshwater supplies will be expensive.

GOALS AND OBJECTIVES:

- To review the impact of all wetland uses on water flow, circulation, quantity and quality before authorization.
- To assess the impact of uses on coastal marshes and estuaries in terms of cumulative impact upon the whole system.
- To assess land and water uses in terms of intrinsic suitability and the limiting factors of the particular land area.
- To encourage urban and industrial growth in most suitable corridors and to discourage such growth in substantially undisturbed wetlands.
- To assure that provision of long-term energy needs will not destroy the integrity of the coastal environment.

OVERALL PROGRAM DESIGN:

Defining the Coastal Zone: This component is designed to delineate planning and management boundaries of the coastal zone. Alternative approaches to defining the landward coastal zone boundary will be explored, including biophysical, political and ecological criteria. This task will be completed early in the second program year.

Study of Legal Authority: Authority to perform coastal zone management related activities in Louisiana is currently spread among some thirty different State, regional and local governmental entities, with no overall coordination mandated. Investigation of existing legal authorities will include analysis of the Louisiana Civil Code and Constitution, study of the manner in which this legislation is administered, and a review of other relevant studies. The product of this work, to be completed in eighteen months, will be a series of recommendations on alternative methods for establishing the required management authorities.

Organizational Study: In coordination with the study of legal authorities, the best organization of agencies to manage the coastal zone will be explored. Two primary goals of this element will be the establishment of a close relationship between scientific and administrative agencies and recommendations for the participation of substate agencies in the management program. This work will be undertaken during the second and third programs years.

Ecological Indicators: A substantial part of Louisiana's coastal zone is made up of extensive marshes and estuaries which serve a large commercial fisheries and recreation industry in the State. The purpose of this element is to identify, review and analyze key ecological indicators

to allow both prediction and measurement of ecological change from proposed major uses of the marshes and estuaries. This study will be conducted throughout the program development period and will provide the basis for the establishment of a monitoring program.

Resource Use Demands and Trends: Both increased urbanization and high population growth are expected in Louisiana's coastal parishes for the next 10 years. This task is intended to develop a State capability to predict current and future resource use and trends, to analyze services and facilities needed to meet demands, to recognize the capability of resources to sustain certain uses and to state, as clearly as possible, human needs and aspirations for coastal resource use. This study will be completed by the end of the second program year.

Critical Areas: The purpose of this element is to develop criteria for the selection, and procedures for the depiction, of areas of particular concern in the coastal zone. Following selection, specific management principles and priority uses for each geographic area will be developed. This task will also be completed by the end of the second program year.

Impact Assessment: Utilizing the capabilities developed in the three tasks discussed immediately above, an effort will be made to develop and standardize techniques for strengthening existing procedures for assessing proposed coastal projects. If possible, procedures for assessing cumulative impact at a regional level will also be developed. This task will be completed at the end of the program development period.

PUBLIC PARTICIPATION:

The Office of State Planning will develop a variety of techniques to obtain public participation in the coastal zone management program development process. First-year efforts will focus on obtaining public input in the formulation of overall goals and objectives. In order to reach and interact with a broader audience than is generally found at traditional public hearings, early emphasis will be placed on new approaches to public involvement. These will include role-playing games, workshops, structured conferences and regional seminars dealing with topics of particular regional concern. A direct link between the coastal management program and the people of the coastal zone, rather than interest group spokesmen, is sought. To achieve this goal, the techniques used by other agencies, industries, and other States will be reviewed and compared.

INTERGOVERNMENTAL COORDINATION:

The new (1974) Louisiana State constitution mandates the reorganization and consolidation of existing State agencies into not more than 20 departments. Within this overall effort, the Office of State Planning will coordinate the operations of all State agencies related to the coastal zone management program. All Federal, State and sub-State agency activity affecting wetlands will be inventoried and analyzed to locate existing overlaps, conflicts and gaps. The planning and program activities

to be conducted by State, regional and local groups will be identified in order to formulate a strategy for coordination. There is a significant quantity of Federally controlled lands in Louisiana's coastal zone. These lands and their associated Federal agencies will be inventoried, and coordination mechanisms will be set up between these Federal agencies and the State's coastal zone management entity.

COASTAL ZONE PLANNING AREA:

For planning purposes, the landward boundary of Louisiana's coastal zone is defined as the inland boundaries of the two tiers of parishes along the shore. The boundary for management purposes may be different, and a major first-year work task will be the examination of alternatives. A landward boundary drawn along political boundaries, as was the planning boundary, is recommended in the Louisiana Wetlands Prospectus. Alternatives include biophysical or ecological criteria.

MAINE

GRANT RECIPIENT: State Planning Office, Coastal Planning Group

OTHER MAJOR PARTICIPATING AGENCIES: Department of Conservation; Department of Marine Resources, Department of Inland Fisheries and Game; University of Maine; 3 regional planning commissions

DEVELOPMENT PERIOD: 1 1/2 years; beginning March 1, 1974

FUNDING: \$230,000 (Federal) \$345,000 (Total)

CURRENT STATUS:

In June, 1970, the Maine State Planning Office (SPO) published the "Penobscot Bay Resource Plan," which depicts problems and needs, identified development opportunities and areas requiring additional study or increased control, and assessed existing land uses and controls. Based on this study, similar inventories have been completed or are underway in lower Penobscot Bay, Hancock County, and the western portion of mid-coastal Maine.

In August 1971, the SPO completed "Maine Coastal Resources Renewal," a major coastal resource study discussing the economic feasibility and environmental impact of fisheries and aquaculture development, electric power and oil industry facility siting on the coast, and the effects of Maine's substantial recreation industry. An outgrowth of this analysis was the report of the Governor's Task Force on Energy, Heavy Industry, and the Maine Coast in August, 1972. The principal finding of this Task Force was that future heavy industry should locate in two designated zones with the remainder of the coast held ineligible for the location of new heavy industries.

In 1971, the Maine legislature passed the Mandatory Shoreline Zoning and Subdivision Control Law requiring coastal planning to be carried out in conjunction with sound environmental criteria. The Act authorized the Maine Environmental Improvement Commission and Land Use Regulation Commission to set standards for local units to enforce in a 250 foot wide strip of coastal shoreland.

As a result of data gathered from the land and water capability and use studies conducted to date, and the Statewide poll "Maine: An Appraisal by the People," which suggested regional policy priorities, the SPO has recommended interim priorities for the control of development. The first priority is the preservation of as much coastline as possible in its natural state. Second is management of the shoreline with emphasis on the greatest possible access to the public. Third is development of: (a) ports and water related industry; (b) transportation; (c) utilities; (d) water related commercial activities; (e) residential use; (f) commercial enterprises enhanced by waterfront location; and (g) industrial uses enhanced by waterfront location.

Finally, the SPO has conducted a preservation analysis of unique and important environmental areas for the entire coast. As a result, 32 conservation zones were selected as critical natural areas needing immediate attention and consideration.

PROBLEMS AND ISSUES:

- Lack of an objectively defined and workable resource base.
- Lack of an administrative control point for the coastal research system as a whole.
- Absence of public knowledge, input, and support.
- An overburdened and underfinanced state and local regulatory and enforcement network.

GOALS AND OBJECTIVES:

- To inventory coastal resources and existing uses.
- To develop a resource classification system with appropriate uses and development standards as a basis for regulating coastal activities.
- To identify areas of major and impending conflicts, and priorities for immediate action.
- To propose necessary regulations and controls.
- To identify public views and interests through public hearings and other techniques.
- To coordinate management efforts with other New England States.
- To develop institutional arrangements, needed legislation, and local controls to achieve the necessary foundation for a coordinated management program.

OVERALL PROGRAM DESIGN:

Land and Water Capability Analysis. The Coastal Planning Group (CPG) of the State Planning Office is developing the essential elements of a coastal management plan - a resource atlas and a basic resource capability analysis. The atlas will present the raw scientific and technical information collected separately so that it can be reinterpreted by individual coastal communities according to their own immediate planning needs.

Base maps for the entire coast have been prepared and most of the resource information will be presented on these maps through an overlay process. A total of 12 resource and land capability maps will be produced for each of the 11 designated coastal areas. Eight of the twelve resource maps were prepared for Penobscot Bay and will form the basis for the mapping effort. These include: bedrock geology, surficial geology, soils, slopes, watersheds and water classification, forest types and land use, facilities and activities, and wildlife and marine resources. The inventory and mapping effort is scheduled for completion by July 1975.

Applied Research: A number of applied research projects are underway or planned during the first two program development years. An analysis of the biological and chemical tolerances of estuarine alteration is being carried on by the Department of Marine Resources in conjunction with its study of benthic population dynamics. In addition, the DMR in conjunction with the University and the Bureau of Geology, is working with the CPG in developing a series of maps depicting natural estuarine systems (fluvial, tidal inlet, lagoon, etc.) and identifying destructive human activities. Part of this task will be to outline prime locations suitable for aquaculture development.

Studies of coastal hydrology have been initiated to determine the potential for ground water and related surface water pollution, and to identify flood-prone areas.

The CPG is working on a program to inventory the scenic and historic features of the coastal zone. The inventory will be a joint project involving the CPG, the Department of Transportation, and the Historic Preservation Commission with emphasis on landscapes and scenic corridors along coastal roadways, and buildings and communities of historic or architectural importance.

The CPG will work with the Parks and Recreation Bureau of the Department of Conservation to inventory and make recommendations with regard to recreational/conservation areas and facilities including: marine recreation facilities, critical areas, coastal islands, coastal and marine wildlife habitats, and wilderness areas. Emphasis will be placed on the expanded use of scenic easements, cooperative access and management agreements.

Finally, through the computer facilities of the recently formed Maine Informational Display and Analysis System (MIDAS), demographic information and data from intensive economic impact studies will be collected and analyzed.

Management Plan Synthesis: Synthesis of the land and water capability analysis, applied research tasks, and local and regional input will be accomplished by means of data-overlays and resource-use matrices. Opportunities and limitations are to be identified on separate maps and published in the resource plans to be drawn up for each planning area.

Final synthesis is to result in division of the coastal area into four management categories: (1) critical areas and areas of overriding State concern; (2) resource protection zones - where natural resource limitations necessitate stringent developmental constraints; (3) resource management zones - areas which because of physical characteristics, present use, or public considerations require special regulations; and (4) development zones. Each category is to be accompanied by general performance guidelines and lists of primary and conditional uses.

PUBLIC PARTICIPATION:

An extensive public opinion poll of citizens and officials in the coastal zone is planned in an effort to determine knowledge of, attitude towards, and information available regarding coastal problems and needs.

The poll, seen as an extension of the recent Statewide opinion poll, "Maine: An Appraisal by the People," will be coordinated by the University of Maine with the assistance of the regional planning commissions in the coastal area.

Also planned are a series of public meetings at various geographical locations along the coast aimed at the drafting and review of "alternative futures" plans for Maine's 11 coastal areas.

INTERGOVERNMENTAL COORDINATION:

Maine is an active participant in the New England River Basins Commission and under its auspices plans to develop its coastal zone management program in close coordination with the other New England coastal states.

At the State level, the SPO has the authority to coordinate the activities of all State, local, and regional entities concerned with the coastal zone. Toward this end, in early 1970 Governor Curtis directed all state agencies and the 131 municipal and sub-state governmental units to refer all future plans for programs or activities in the coastal area to the SPO for review.

The Mandatory Shoreland Zoning Act calls for each community to zone its shoreland area under the guidance of the State. Nearly all of the local planning boards are represented on regional planning commissions in the 11 coastal areas, each of which will receive grants from the SPO to conduct its coastal planning work.

COASTAL ZONE PLANNING AREA:

For planning purposes, the coastal zone of Maine will comprise the land area contained in 11 designated coastal planning areas as well as the water area seaward to the State's territorial limit. The designated planning areas are: (1) Upper Penobscot Bay; (2) Western Penobscot Bay; (3) Eastern Penobscot Bay; (4) Eastern Hancock County; (5) Lincoln County; (6) Bath-Brunswick, Western Mid-Coast; (7) Western Washington County; (8) Central Washington County; (9) Eastern Washington County; (10) Cumberland, Greater Portland Area; and (11) Southern Maine, York County.

MARYLAND

GRANT RECIPIENT: Department of Natural Resources

OTHER MAJOR PARTICIPATING AGENCIES: Chesapeake Bay and Coastal Zone Advisory Commission

DEVELOPMENT PERIOD: 3 years; beginning June 30, 1974

FUNDING: \$280,000 (Federal) \$465,765 (Total)

CURRENT STATUS:

The Maryland Department of Natural Resources (DNR) was created in 1969. Among its legislative mandates is the specific responsibility for planning, development, conservation, and management of the Chesapeake Bay and other tidal waters, including their shorelines and bottom lands, and any resources associated with the Bay. The DNR is also authorized to plan and develop recreational facilities, and to take measures to protect tidal waterfronts from erosion.

Within the DNR, the Water Resources Administration will be the administrative unit with primary coastal zone management responsibilities. As part of its activities, the following studies have been undertaken: a) Chesapeake Bay: Inventory of Undeveloped Shoreline Areas; b) Public Landings Study; c) Recreational Boating Needs and Carrying Capacity Study; and a detailed water resources study of the Eastern Shore.

The DNR also regulates activities in wetlands areas by means of a permit system based on a wetland inventory program utilizing aerial photography.

PROBLEMS AND ISSUES

- Loss of valuable wetland areas from agricultural draining, solid waste disposal, the construction of residences and boat marinas, dredging and disposal of dredge material, and the diking and bulk-heading of shoreland areas.
- Insufficient data on and knowledge of the causes and effects of shore erosion and mechanisms to deal with it, particularly in hurricane-prone areas.
- Lack of advance planning to identify and protect critical areas of ecological importance and to ensure that developments are located and constructed to cause a minimum amount of adverse environmental and aesthetic impact.
- Published geological and geophysical data indicating strong development pressures will be forthcoming for oil production in the Georges Bank area off the ecologically valuable and fragile Atlantic coastline of the State.
- Increasing port activity requiring expanded support facilities and improvement and maintenance of shipping canals.

- Large scale diversion of the flow of fresh water into Chesapeake Bay critical to the survival of the Bay's marine resources.
- Lack of information concerning the requirements of the Chesapeake Bay's fish and wildlife resources, their tolerances to human activities, and the long range effects of their management.

GOALS AND OBJECTIVES:

- To identify and develop mechanisms to protect areas of biological, recreational, aesthetic, scientific, historical, and cultural importance and to identify and provide for the rational growth of areas appropriate for development.
- To develop guidelines and standards regarding the conduct of activities occurring in other portions of the State's coastal zone so that they do not adversely affect critical areas or the productivity of the State's coastal areas.
- To develop mechanisms, including the setting of priorities, to guide public and private utilization of coastal resources in order to minimize conflicts among uses and to protect the natural resource base on which coastal uses depend.

OVERALL PROGRAM DESIGN:

Intergovernmental Coordinative Mechanisms: In the first year of the program development period, the adequacy of existing coordinative mechanisms will be evaluated. Where existing mechanisms are considered inadequate, appropriate coordinative mechanisms will be designed. Included in the study will be the development of mechanisms to assure that the management of the Federal land is in accordance with the purposes of the State's coastal zone management program.

Information Management System: Inventories and resource studies to be undertaken during the first year of the program will address specific information requirements, existing information sources, and information gaps. A primary first year task will be to develop a coordinated information management program for the information sources identified. Alternatives such as computer storage, standardized map representations, and central file indexing, as well as display requirements, updating potential, etc., will be assessed and a coastal zone library formed to store documents, reports, and periodicals.

Program Implementation Mechanisms: A review of existing Federal and State statutory, regulatory, and technical and financial mechanisms will be conducted. Maryland's existing control powers will be assessed and a determination made as to what additional powers are required to implement a coastal zone management program. The examination of alternative implementation mechanisms will take place during the first program development year.

Coastal Zone Boundaries: Criteria for determination of the proper management boundaries of Maryland's coastal zone will be developed during

the first year. The State's land use planning efforts and first year mapping and inventory efforts will be utilized to determine areas, the use of which may have significant impacts on the coastal waters of the State.

Areas of Critical Concern: Identification of these critical areas which need protective measures to preserve their values and also of those areas which need regulation to facilitate rational development will be initiated in the first year. An overall inventory of uses, resources, landscapes, and habitats of the coastal zone will be undertaken during the first two years, with initial emphasis on the refinement of information on the State's wetlands and shoreline areas.

Identification of Permissible and Compatible Land and Water Uses: In an effort to obtain the necessary information base for decisions regarding permissible uses, the following tasks will be accomplished: a) the development of criteria for assessing impacts of uses on specific environments; b) identification of present and potential activities with impacts on coastal resources; c) identification of resource requirements for specific coastal activities; and d) the identification of use conflicts--the results of these studies to be initiated in the first year, along with literature reviews and the information gained from the inventory of coastal uses, resources, landscapes, and habitats will be used in conjunction with public and local government input to develop conflict matrices to determine permissible and compatible land and water uses.

Priorities Among Coastal Zone Uses: With the completion of the identification of critical areas and permissible uses, priorities among permissible uses can be determined in the second year. The establishment of priorities will lead to identification of those nondevelopmental critical areas which need either acquisition as refuges or for public use, require restoration, or can be protected by regulations. In the developmental critical areas and remaining areas, the need for regulation can be assessed and the necessary controls drawn up for review.

PUBLIC PARTICIPATION:

The Chesapeake Bay and Coastal Zone Advisory Commission, composed of citizens with expertise or interest in various coastal zone processes and uses, will be one of the primary means of ensuring public input into program development. The Commission will provide advice to the coastal zone staff in policy and procedural matters, and will review the proposals and plans developed.

Other public participation strategies, the exact format of which will be decided during the first year of program development, will be utilized, including workshops, informational and educational seminars, and direct liaison with citizen and special interest groups.

INTERGOVERNMENTAL COORDINATION:

Coordination among State level agencies in environmental matters is provided by the Maryland Council on the Environment, composed of the Governor, Lieutenant Governor, and the heads of various State agencies including the DNR.

The DNR and the Department of State Planning are both represented on various interstate committees undertaking planning studies in the region, including the Susquehanna River Basin Commission and the Interstate Commission on the Potomac River.

The DNR interacts with local governments on the review of local comprehensive plans and plans for local water and sewage control. One task in the development of the coastal zone management program will be to expand the scope of coordination with local and sub-State regional units.

COASTAL ZONE PLANNING AREA:

For initial planning purposes, attention will be focused on Maryland's 15 coastal counties (Prince George's, Charles, St. Mary's, Calvert, Anne Arundel, Baltimore, Harford, Cecil, Kent, Queen Anne's, Talbot, Caroline, Corchester, Somerset, and Worcester) and Baltimore City. Within this region, critical areas will be delineated for special attention.

MASSACHUSETTS

GRANT RECIPIENT: Executive Office of Environmental Affairs

OTHER MAJOR PARTICIPATING AGENCIES: Department of Natural Resources

DEVELOPMENT PERIOD: 3 years; beginning May 1, 1974

FUNDING: \$210,000 (Federal) \$315,000 (Total)

CURRENT STATUS:

Massachusetts's Coastal Wetlands Protection Act, passed in 1965, empowers the Commissioner of the Department of Natural Resources to issue orders regulating, restricting, or prohibiting dredging, filling, removing or otherwise altering or polluting coastal wetlands.

A series of ocean sanctuaries Acts established the Cape Cod Ocean Sanctuary, the Cape Cod Bay Ocean Sanctuary; the Cape and Islands Ocean Sanctuary, and the North Shore Ocean Sanctuary. The Acts delineated the areas and prohibit certain activities such as: the building of any structures on the seabed; removal of any sand, gravel, or other minerals except for beach and shore restoration; extraction of subsoil minerals; and the dumping of commercial or industrial wastes.

In January 1974, Governor Sargent created a Task Force on Coastal Resources comprised of representatives from the State legislature, state agencies, the University, industry, environmental groups, and regional and local units of government. The Task Force will assist the Executive Office of Environmental Affairs (EOEA) in the development of the management plan, including the definition of boundaries, permissible and priority uses, and the identification of areas of particular concern. In addition, a technical team of line agency staff and representatives of the six regional planning agencies bordering on coastal waters serves to support the Governor's Task Force and the Coastal Resource Planning Group (CRPG), recently created within the EOEA.

PROBLEMS AND ISSUES:

- Need to achieve an appropriate balance between local, regional, and State decision-making, and to define explicitly those instances where State intervention in the management of the coastal zone is necessary.
- Lack of a sufficient information base and management mechanism for decision-making with respect to the siting of major power and oil-related facilities, control of the possible air and water pollution, and associated urban blight problems.
- Lack of adequate recreation facilities in and public access to shoreland areas in the State, accentuated by the rising demands for, and conflicts among, shoreland uses.
- Need to identify, protect, and restore estuarine, wetland, and fishing ground areas from the effects of unchecked development, natural catastrophe, and the impacts of erosion, and coastal sewage and waste disposal.

GOALS AND OBJECTIVES:

- To develop coastal zone management implementation measures which build upon the tradition of local decision-making, but which also provide for State overview of local decisions on matters with far reaching impacts on the coastal zone or state as a whole.
- To encourage commercial, industrial, port, and energy facility developments of the type required to meet the Commonwealth's social and economic needs, and to guide such developments to those areas which are best suited for such activities and which can accommodate them without undue damage to the coastal environment, and to minimize conflict with neighboring uses.
- To improve public access to coastal lands and waters of significance for recreation and leisure use, and to provide better opportunities for those now suffering from an inequity in the distribution of coastal recreation resources.
- To protect coastal land, water, and living resources of major significance from degradation and overuse, and to preserve from development areas of natural productivity and flood and hurricane damage prone areas.

OVERALL PROGRAM DESIGN:

Resources Inventory: Identification and analysis of existing natural resource data, cultural, historic, scenic, and socio-economic and human values and present uses will be undertaken during the first program development year. Emphasis will be placed on assembling data from completed or ongoing programs and the identification of future data requirements. A parallel effort will be made to strengthen data exchange procedures and coordination with the Statewide Comprehensive Outdoor Recreation Planning process, the Southeastern Regional Planning and Economic Development pilot water quality project, Soil Conservation Service work and other resource and land use planning programs in the State.

Permissible Land and Water Uses: A first year task will be to analyze the impacts of specific groupings of land and water uses according to their effect upon the carrying capacity of the resource base of the coastal zone. Assessments will be made of both (a) the impacts of present and projected uses upon coastal resources and ecosystems and (b) the socio-economic impacts of limiting the magnitude, intensity, location, and types of such uses. In the second and third program development years the products of the resource inventory, the carrying capacity analysis, and the preliminary findings on critical areas (discussed below) will be synthesized; a preliminary report describing permissible uses and proposed locational criteria and regulatory standards will be developed.

Critical Areas: The data generated from the resource inventory will be analyzed to identify areas of critical State concern. A master listing and mapping system will then be developed during the second and third years. Areas will be assessed according to their unique suitability for certain uses, or the pressure on them of competing uses. Areas to be identified

and studied include: areas with a high incidence of unique, scarce, fragile, or vulnerable natural habitat or physical features; areas of outstanding historical or scenic significance; areas of unusually high productivity or essential habitats of important animal and plant species; areas needed to protect, or replenish coastal lands or resources such as aquifer recharge areas, marshes, and sand dunes; and areas which would be particularly vulnerable, if developed, to storms, floods or erosion.

Analysis of Management Tools: A first year task will be to analyze all relevant Federal, State, regional and local management tools for coastal areas according to compatibility scope, regulatory powers, and tax incentives. A parallel effort will be the review, by the coastal regional planning agencies, of the accomplishments of local zoning units and conservation commissions to ascertain the strengths and weaknesses and needs of these entities. On the basis of these studies and an assessment of the need for additional State powers to acquire fee simple or less than fee simple interests in lands and waters, alternative model legislation will be formulated to be considered in the second and third program development years.

Coastal Review Center Operations: The objective of this work element is to develop an interim process for monitoring significant activities and reviewing major projects in the coastal zone, pending completion of an approved comprehensive coastal zone management plan. At the same time, it is expected that the center will serve as a focal point for information collection and dissemination to provide technical support to the planning staff of the EOEa.

The center, which is to have a measure of independence from other State agencies, will monitor and regularly compile a summary of activities; it will screen projects and programs to identify points of conflict for resolution by the Governor's Task Force on Coastal Resources.

PUBLIC PARTICIPATION:

A first year task will be to formulate an approach for executing a public information and education effort as part of the program development process. Information will be compiled discussing accomplishments of major milestones and explaining major decisions, and will be disseminated by newsletters and bulletins and through the Commonwealth's regional planning agencies.

When certain tasks or discussions on major policy issues warrant public input, appropriate public meetings will be held at the local level. Emphasis will be placed on ensuring the input of public groups such as: environmental action groups, industrial organizations, university interests, local planning boards, and special interests (e.g., fisheries groups).

INTERGOVERNMENTAL COORDINATION:

At the multi-State regional level, Massachusetts is an active participant in the New England River Basins Commission. In order to ensure close cooperation with the state's planning program, the NERBC will have a member on the Governor's Task Force on Coastal Resources.

At the State level, Massachusetts will develop a three-tiered structure to ensure coordination of State, substate, regional and local activities. The three components will be: (a) the Governor's cabinet-level Resource Management Policy Council; (b) the 30-member Governor's Task Force on Coastal Resources; and (c) the technical team of State line agencies and regional planning agencies operating as the technical support arm to the Task Force. The regional planning agencies, through their participation on the technical support team will act to ensure that local government concerns and specific geographic interests are incorporated into the management program.

COASTAL ZONE PLANNING AREA:

The coastal zone planning area will encompass all of Massachusetts' 87 coastal cities and towns and extend to the limits of the State's seaward territorial limit. Coastal cities and towns are defined as those "bordering ocean and estuarine waters to tidal rise and fall." The management area boundary will be determined at the end of the first year after permissible uses and areas of critical concern have been identified.

MICHIGAN

GRANT RECIPIENT: Department of Natural Resources

OTHER MAJOR PARTICIPATING AGENCIES: 10 Regional Planning Agencies

DEVELOPMENT PERIOD: 2 years; beginning June 30, 1974

FUNDING: \$330,486 (Federal) \$534,477 (Total)

CURRENT STATUS:

With the enactment of the Shorelands Protection and Management Act of 1970, the Michigan Legislature directed the Department of Natural Resources's Water Resources Commission to develop a comprehensive plan for control of the use and development of Great Lakes' shorelands. The plan was completed in August, 1973. The various chapters of the plan deal with the following areas: (a) an overview of the amounts and types of shoreland use, development, and ownership, and an inventory of the physical characteristics of the shoreland; (b) the causes and possible solutions of shoreland erosion and flooding; (c) description of areas of significant environmental concern which warrant priority preservation efforts; (d) an examination of the legal tools available for shoreland management, and the particular need to establish a program to buy and resell deeds to shoreland property with appropriate restrictions; and (e) general management guidelines with emphasis placed on the continuing role of local governments in the preparation of county or regional management plans.

The Plan sets forth three basic principles for management and protection of Michigan's shorelands: 1) limit development to those areas which specifically require a shoreline location; 2) require permissible developments to be planned and constructed to harmonize with the capacity of the shoreline ecosystem; and 3) foster and facilitate public acquisition of significant environmental areas.

In December, 1973, the Water Development Services Division of the DNR published, "Flooding Problems Associated with Current High Levels of the Great Lakes." The report presents an overview of the Great Lakes' high water flooding problem: its causes, effects, solutions, and possible future alternatives.

PROBLEMS AND ISSUES:

- Lack of a coordinated management program to effectively deal with potential of further serious damage to shoreland properties from flooding and erosion. (Over 700 miles of Michigan's Great Lakes shoreline were designated as high-risk erosion areas in 1973).
- Minimal local planning, zoning, health and sanitation programs for much of the shoreland area subject to increasing recreational and residential demands.

- Need for the rehabilitation and redevelopment of blighted urban waterfronts dominated by abandoned commercial and industrial economic structures.
- Need to protect shoreland wildlife and fishery resources from ecologically degrading activities such as dredging and filling of wetlands, improper placement and design of waste disposal systems, improper development, etc.
- Need to integrate and ensure cooperation among coastal management programs currently fragmented among numerous units of government.

GOALS AND OBJECTIVES:

- To protect the overall environmental integrity of Michigan's Great Lakes shorelands.
- To facilitate the orderly use and development of shoreland resources, including transportation, recreation, energy production, industry, agriculture, and commerce.
- To preserve the shoreland ecosystem and its diverse array of flora and fauna.
- To perpetuate unique cultural, ecological, scenic, aesthetic, historic, and scientific shoreland resources.
- To minimize damages to shore properties from erosion and flooding.
- To assist in the conservation and protection of the Great Lakes through enlightened use and development of shoreland areas.

OVERALL PROGRAM DESIGN:

Goals and Objectives: This early first year task will focus on development of an explicit statement of goals and objectives for each of the 10 State planning regions included in Michigan's coastal area. Particular attention will be given to definition of proposed permissible land and water uses and their priorities. The input from the individual regions will be synthesized into regional statements of goals and objectives, with particular attention directed to integration of Statewide and national interests.

Use and Ownership Inventory: Existing data on land and water uses and shoreland ownership will be collected early in the first year. Supplemental data will then be collected on physical features, degree of development, location of unique cultural and historic features, significant environmental and ecological resources, and related items to provide an adequate information base for the management program. Emphasis will also be placed on developing a mechanism for periodically monitoring land use changes.

In addition to the use and ownership inventory, supplemental data will be collected and analyzed for implementing the statutory requirements of the Shorelands Protection and Management Act pertaining to significant environmental and high-risk erosion areas. Research will focus particularly on erosion recession rates--data which are necessary to the formulation of set back lines and other regulatory criteria.

Data Management System: With significant amounts of data generated during implementation of the Shorelands Protection and Management Act, and with more to be collected during the planned inventories, development of a

mechanism for rapid retrieval and analysis of such data is viewed as an essential task to be initiated during the first year. To facilitate coordination and data transferability among shorelands management, land use and recreational planning, water resources planning, and other programs, the data management system will be designed to accommodate a number of programs. Methods to be utilized are to include the development of a computer capability and user manual.

Navigation Needs: An important first year task is the identification of future shorelands requirements for improvements in the Great Lakes navigation system. Identification of port requirements, dredging and dredge disposal needs and other shoreland impacts is seen as a task of special importance in view of the national interest in extension and revitalization of Great Lakes shipping.

State, Local, and Federal Authorities for Shorelands Management: An early effort will be made to categorize existing statutes, rules, regulations, guidelines and policies at both the State and local levels in order to evaluate their usefulness in structuring a comprehensive management program. Examination will be made of a wide variety of management tools including licensing and permit programs, building codes, land sales regulation, plat review and approval, environmental impact statement requirements, taxation practices, and air and water quality regulations.

Equal effort is to be made in examination of State and local programs involved in such activities as park acquisition, mineral leasing, transportation, energy facility siting, and historic area preservation.

Finally, shoreland practices and programs in other States will be examined and critically evaluated for their applicability in Maryland. Synthesis of these three sub-tasks will be directed toward identification of potential new regulatory and control authorities to remedy existing deficiencies.

Organizational Arrangements and Program Formulation: Development of an organizational structure capable of management program coordination and administration will be addressed primarily during the second program development year. Aspects include: mechanisms to ensure coordination of DNR activities with the programs of other State agencies; the distribution of management functions among State, regional, and local government entities; the structure and composition of a shoreland management agency; and provisions to facilitate interstate coordination.

Upon completion of all other program development tasks, a draft management program will be prepared by the middle of the second program development year and submitted for interagency and public review.

PUBLIC PARTICIPATION:

A Governor-appointed, seven-member Natural Resources Commission is a policy-making body for the Department of Natural Resources. At present, the Commission is holding a series of town meetings across the State to solicit citizen views.

To assist in program review, the Natural Resources Commission has appointed a Shorelands Advisory Council. The Advisory Council, composed of citizen representatives of many shoreland interests, is primarily responsible for soliciting public views, support and involvement in the planning process.

Finally, public meetings and hearings will continue to be used broadly as mechanisms for public review of plans and regulations.

INTERGOVERNMENTAL COORDINATION:

At the substate regional and local levels, 10 regional planning agencies will participate in the development of the management programs. The regional planning agencies will participate in: (a) the formulation of local and regional goals and objectives; (b) the identification of local government regulations and programs, and the development of legislation to clarify their authority; (c) the coordination of local planning programs and activities related to the shorelands of the Great Lakes; and (d) the formulation and review of statewide management controls and guidelines. The regional planning agencies have established a Statewide organization, known as the Michigan Association of Regions, to coordinate regional participation in the planning process.

At the State agency level, coordination is ensured by the organizational structure of the DNR. Each of the major agencies involved in coastal zone management planning--the Office of Land Use; the Water Development Services Division of the Bureau of Water Management; and the Divisions of Fisheries, Wildlife, Waterways, Parks, Forestry, Water Quality Control, Hydrological Surveys, and Geological Survey--are within the DNR and under the control of its Director and the Natural Resources Commission.

Interstate coordination will be provided by membership on a committee on shorelands management created by the Great Lakes Basin Commission.

COASTAL ZONE PLANNING AREA:

The State is divided into 14 designated planning regions, each with a regional planning commission or planning and development commission. Ten of the fourteen regions include shoreland areas and will participate in formulation of the coastal zone management program. As a rule, the planning area will include a zone extending about one-half mile inland from the shoreline of each region.

MINNESOTA

GRANT RECIPIENT: State Planning Agency

OTHER MAJOR PARTICIPATING AGENCIES: Department of Natural Resources, Bureau of Planning; Department of Economic Development; Arrowhead Regional Development Commission.

DEVELOPMENT PERIOD: 3 years; beginning June 1, 1974

FUNDING: \$99,500 (Federal) \$149,250 (Total)

CURRENT STATUS:

The Shoreland Management Act of 1969 requires the Commissioner of the Department of Natural Resources (DNR) to set zoning standards for county governments to enact and enforce for all lands within 1,000 feet of the normal high water mark of a lake or pond, or within 300 feet of a river or stream in both incorporated and unincorporated areas. The Shorelands Management Unit of the DNR is developing a comprehensive plan for the maintenance of the shorelines and control of dredging, filling and spoil removal, based on the classification and regulation schemes developed by the county units.

The Department of Highways has recently completed several studies related to highway planning and construction in the coastal area. The "Norshor" study, conducted jointly with the DNR, includes an inventory of physical land characteristics and existing land use by means of a computer mapping technique. Data mapped includes soil types, vegetative cover, hydrology, existing land use, recreational areas and facilities location, and unique natural and historical features.

At the regional level, the Arrowhead Regional Development Commission (ARDC) is responsible for development of a water quality management plan for the Minnesota portion of the Lake Superior Basin. The Commission has developed and approved a Sewer and Water Plan for communities of less than 5,500 and a 6-county Solid Waste Management System Plan.

PROBLEMS AND ISSUES:

- Lack of proper land use controls causing "strip" configurations in many shoreland areas and rapidly eliminating open space and public access.
- Lack of a bi-State comprehensive plan or organizational structure capable of effective coordination or control over metropolitan and harbor development of the Duluth/Superior area.
- Need for increased public land holdings, parks, recreational areas, and public access corridors to the shoreline in the face of increasing multi-use pressures.
- Need for large commitments of land, rail and harbor facilities to accommodate expansion of taconite and copper-nickel mining operations.
- Need for public sewer service in many shoreland areas which are approaching urban densities.
- Need to control industrial waste disposal; accelerated erosion, sedimentation and storm runoff, and mining effluents to protect water quality and a declining fishing industry.

- Need to develop a mechanism to integrate and coordinate the presently overlapping and duplicative activities of various State and local entities involved in shorelands management.

GOALS AND OBJECTIVES:

- To establish procedures for information exchange, consultation, and coordination among all government agencies, public and private groups, and citizens interested and active in the coastal zone, so that proper management goals and objectives may be articulated, and National, State, regional, and local interests in potential uses clarified.
- To identify conflicts and inconsistencies in the goals, objectives and policies governing all planning, management, and regulatory activities carried on in the coastal zone by Federal, State, regional, local, or interstate entities, to eliminate these, and to adopt current policies to a unified set of goals, objectives, and policies to be developed.
- To identify gaps, duplications, or overlaps in legal authorities, and possible legislative changes necessary to ensure the establishment of effective controls over coastal zone resource uses necessary for the successful implementation of a coastal zone management program, and institutional arrangements supportive thereof.

OVERALL PROGRAM DESIGN:

Resource Data Acquisition and Analysis: Two inventories are scheduled to run concurrently during the first and second program development years. An inventory will be conducted of the natural, historical, cultural and scientific resources of the coastal zone. Data will be collected on: soils and geomorphological regions; geology, climate, land cover, location of wetlands and ground water recharge areas; surface and ground water yield and quality; air quality, fish and wildlife; historical and archaeological sites; and cultural and scientific resources.

The second inventory will examine current resource use and the factors affecting it. The information acquired will relate to: land use, land and water ownership, zoning, water use, point and non-point sources of water pollution, air pollution sources and controls, fish, wildlife and forestry management, and local tax mechanisms and incentives. The data collected from the two inventories will be entered into the Minnesota Land Management Information System (MLMIS), a computer-based system serving as a storehouse of resource data organized by geographic location. The data will then be analyzed to determine suitability of resources for various land uses, and to identify areas with development potential and areas with particularly fragile or unique ecosystems.

Goals and Policy Development: In an effort to define more clearly coastal zone problems and needs, an analysis will be undertaken during the first year of goals, objectives and policies presently guiding all planning, management, and regulatory activities carried on in Minnesota's coastal zone. In this manner, conflicts and inconsistencies can be uncovered, and a set of unified goals, objectives and policies developed. This process will integrate the information gained from the resource use capability analysis developed from the inventories, and will contain explicit criteria with

regard to priorities of permissible uses in specified geographical areas and the designation of areas of particular concern.

Alternative Institutional Arrangements: A first year task will be to survey legal authorities under which planning, management, and regulatory activities are presently carried out in order to identify possible gaps and duplications. A related task will be the evaluation of existing institutional arrangements and the present division of administrative responsibilities for activities relating to land and water resource uses. With the completion of these analyses, recommendations for legislative and administrative action to eliminate duplications and ensure effective regulatory controls, and to improve the division of administrative and management capabilities, will be developed.

Immediate Action Program: An early effort will be made to identify those areas of particular concern at the regional or Statewide level which may require immediate regulation through designation as critical areas under the Minnesota Critical Areas Act of 1973. This legislation assigns the Minnesota Environmental Quality Council the responsibility to identify areas of the State, which because of unique characteristics, could be irreparably damaged by uncontrolled development. After an area is designated as an area of critical concern, the State is required to assist and cooperate with local units of government in developing plans and permit regulations for the use and development of these areas.

PUBLIC PARTICIPATION:

Minnesota considers the development of its coastal zone management program as the initial component of an effort to develop an overall State land use planning process. As a step toward this end, a set of alternative futures or strategies leading to various directions of growth and development is being prepared by the Commission on Minnesota's Future, a panel of citizens, State and local officials, and legislators. These strategies will guide the formulation of goals, objectives and policies for land use planning and provide a frame of reference against which to assess public needs and desires.

In an effort to educate the public concerning Minnesota's coastal zone management program, and to provide opportunities for continuous citizen participation in the planning process, a series of public meetings, seminars and interagency workshops are scheduled. In addition to the meetings and workshops, questionnaire surveys will be conducted from time to time to determine public attitudes toward specific policies and proposals as they are advanced throughout the planning process.

INTERGOVERNMENTAL COORDINATION:

At the multi-State regional level, Minnesota participates in the Great Lakes Basin Commission, coordinating its shoreland planning activities with the other Great Lakes States. In addition, channels for bi-State cooperation have been opened through joint participation of the Northern Wisconsin

Regional Planning and Development Commission and Minnesota's Arrowhead Regional Development Commission in the preparation of the Lake Superior Basin Water Quality Management Plan. The ARDC will also maintain the primary responsibility for coordinating the programs of local and areawide governmental entities concerned with shorelands management.

To strengthen State level coordination, two specific tasks are to be carried out in the initial program development year: 1) the hiring of a full-time State Coastal Zone Management Administrator; and 2) the expansion of the existing State Level Coastal Zone Management Work Group to include representatives of various State agencies, educational institutions, and the general public. Under the direction of the State Coastal Zone Management Administrator, this group will provide State policy guidance and facilitate cooperation among various agencies during program development.

COASTAL ZONE PLANNING AREA:

The coastal zone study area defined for the purpose of coastal zone management program development includes that portion of the Lake Superior coastal drainage basin contained in Cook, Lake, St. Louis, and Carlton Counties, with particular emphasis placed on activities within a zone extending approximately five miles inland from Minnesota's Lake Superior shore.

MISSISSIPPI

GRANT RECIPIENT: Mississippi Marine Resources Council

OTHER MAJOR PARTICIPATING AGENCIES: Mississippi-Alabama Sea Grant Consortium; Southern Mississippi Planning and Development District; Gulf Regional Planning Commission.

DEVELOPMENT PERIOD: 3 years; beginning May 1, 1974

FUNDING: \$101,564 (Federal) \$152,346 (Total)

CURRENT STATUS:

With the passage of the Coastal Wetlands Protection Act in 1973, the Mississippi Marine Resources Council (MMRC) became the regulatory agency for activities conducted on State-owned coastal wetlands, and was directed to include an overall plan for use of coastal and private wetlands in the State's comprehensive coastal zone management plan.

The MMRC works very closely with the Mississippi Sea Grant Consortium, with the Director of the MMRC serving as a member of the Sea Grant Management Committee, along with representatives of the University of Mississippi, the University of Southern Mississippi, Mississippi State University, and the Gulf Coast Research Laboratory. The Consortium's program presently carries on investigations in the areas of: Program Direction and Development, Marine Coastal Law, Pollution, Fisheries Development, Engineering in the Ocean, Industrial Development, and Advisory Services. One ongoing project is a study to predict ecological changes expected to occur in estuarine areas as the result of the introduction of various types of pollutants.

ISSUES AND PROBLEMS:

- Increasing population pressures and the decreasing availability of coastal lands aggravate competition among industrial, commercial, and residential developers and diminish areas available for recreational and public use.
- Inadequate municipal and industrial waste treatment facilities pollute estuarine and tidal areas to the detriment of wildlife, sport, and commercial fisheries and the tourist-recreation industry.
- Highly productive coastal marshes and wetlands have been developed and destroyed.
- Increasing petroleum extraction and facility construction has increased transportation and waste treatment needs, as well as the risk of oil spills.
- Inadequate planning has been done to locate coastal development in areas least prone to hurricane damage.
- Increasing industrial development in the coastal area competes for available shoreland areas and places demands on available ground water supplies and waste treatment waters.

- Alternative modes of land based transportation in the coastal areas need to be addressed.

GOALS AND OBJECTIVES:

- To develop available coastal resources in a manner which will preserve resource values and provide options for future generations by minimizing irreversible commitments.
- To initiate and maintain a continuing inventory of natural resources and their requirements and capabilities while recognizing and allowing for their limitations.
- To set up a mechanism to provide a coordinating framework for coastal zone management activities, focusing on immediate problems but remaining cognizant of long-term trends.
- To develop and maintain an educational system to disseminate information obtained through coastal zone research.
- To establish a system for handling resource conflicts which embodies the concepts of multiple and shared use, irretrievable commitments, and available alternatives.
- To provide protective mechanisms and regulations for the conservation of natural ecosystems and prime resources essential to the coastal zone.

OVERALL PROGRAM DESIGN:

Date Acquisition: Efforts will be concentrated in the first 12 months of program development to acquire and evaluate all existing information concerning the coastal zone published by local, regional, State, and Federal agencies in the area of coastal zone management. Where informational gaps are identified, additional investigation and research will be initiated to meet planning needs in such areas as the determination of environmental carrying capacity, dependencies on particular uses, and identification of adverse impacts.

Setting Policy Goals: Utilizing appropriate technical data, broad policy goals for coastal zone management will be delineated. The MMRC will begin in the second half of the first year to address the areas of industrial development, commerce, residential development, recreation, mineral extraction, transportation, waste disposal, and fisheries development.

Permissible Land and Water Uses, Priority Uses, and Areas of Critical Concern: In order to define permissible uses, the MMRC plans a three-pronged effort: 1) assessment of the impact of existing and projected uses, and establishment of the carrying capacity for those uses; 2) categorization of the nature, location, and scope of current and anticipated conflicting uses; and 3) evaluation of the values and interrelationships among specific coastal environments.

Criteria for the designation of areas of particular concern will be developed and priority of uses determined during the second year of program development. Guidelines will be drawn to reflect the balancing of the

value of economic development with the need for preservation of marine and wildlife resources and nutrient rich ecological systems, as well as conservation of open space.

Legal Policy Analysis and Legislative Drafting: In order to develop the legal capability necessary for Mississippi to regulate land and water uses and control development, a legal analysis of alternative mechanisms to meet these regulatory requirements will be conducted throughout the second half of the first and the entire second years.

Legislative measures required to clarify and extend existing lines of authority and responsibility will be developed in the second and third program development years. Legislation will be drafted to provide the authority necessary to meet the regulatory and control requirements imposed by the Federal Coastal Zone Management Act.

Plan Preparation: The results of all the program development tasks will be combined to formulate the comprehensive coastal zone management plan--a synthesis of policies, regulatory controls, and geographic delineations. The Plan will be drafted and submitted for public and interagency review during the last year of the program development period.

PUBLIC PARTICIPATION:

Public participation in the development of Mississippi's comprehensive management plan will be obtained principally through the establishment of a Citizen Advisory Committee and a public seminar-workshop series. The workshops, to be held periodically to develop a dialogue between the MMRC and public interest groups, will address technical and political problems and attitude identified with policy development.

The foundation for the public participation program has previously been laid through the efforts of Mississippi's Sea Grant Consortium. The Sea Grant Program developed a Coastal Leaders Program and conducted a Coastal Leaders Conference to concentrate on specific problem areas. The MMRC plans to utilize these existing channels and expand this operation to accomplish much of the public involvement effort; a series of meetings will be held with civic leaders at major milestones in plan development.

INTERGOVERNMENTAL COORDINATION:

At the local and sub-State regional levels, the Gulf Regional Planning Commission will play a key role in assisting the MMRC to establish communication and coordination with county and metropolitan agencies.

At the State level, membership in the MMRC itself provides coordination. The Council is composed of 16 members with representatives from the State Senate and House of Representatives, the Gulf Coast Research Lab and Universities Marine Center, The Mississippi Agricultural and Industrial Board, the Marine Conservation Commission, the Research and Development Center, and the public at large. The Council is chaired by the Governor and works in close coordination with the Gulf Regional Planning Commission, the Sea Grant Consortium, and with other State agencies.

Mississippi also coordinates closely with the neighboring State of Alabama in its coastal zone management efforts. In 1972, the States combined efforts to study the environmental and economic feasibility of locating a port off their coasts, and it is expected that such joint efforts will continue.

COASTAL ZONE PLANNING AREA:

A refined definition of the coastal zone boundary is an early task in the development of Mississippi's comprehensive coastal zone management plan. However, a tentative boundary for planning purposes has been delineated employing the concept of primary and secondary zones.

Tentatively, the primary zone will include lands inland one mile from mean high tide, or the limit of the critical hurricane exposure zone.

The secondary zone, where the MMRC will assume an advisory rather than a management role, includes all lands extending from the inland limits of the primary zone to the landward boundaries of Hancock, Harrison, and Jackson Counties.

NEW HAMPSHIREGRANT RECIPIENT: Office of Comprehensive PlanningOTHER MAJOR PARTICIPATING AGENCIES: Strafford-Rockingham Regional CouncilDEVELOPMENT PERIOD: 2 years; beginning June 30, 1974FUNDING: \$78,000 (Federal) \$117,000 (Total)CURRENT STATUS:

There are at present twelve State agencies and two commissions with jurisdiction over coastal resources. Legislation to create additional single purpose authorities has been introduced in recent sessions of the State legislature. The Office of Comprehensive Planning is responsible for planning coordination and is presently working with the New England River Basins Commission to produce the New Hampshire Guide Plan as part of the New England Comprehensive Coordinated Joint Plan. This work is scheduled for completion in 1974. At the regional level, the Strafford-Rockingham Regional Council has broad planning responsibilities and participates in the A-95 review process.

Of New Hampshire's governmental agencies, only those at the local level are prepared to implement coastal zone management programs. All of the coastal communities have planning boards and zoning ordinances. Essentially, all coastal communities have the basic land use management framework through which local elements of a comprehensive coastal management program may be conducted. Local priorities, however, tend to favor increasing the tax base rather than ecosystem preservation or public recreation.

PROBLEMS AND ISSUES:

- Location of a super port offshore
- Location of an oil refinery (or refineries) onshore
- Location of nuclear power plants
- Mining of sand and gravel offshore
- Drilling for oil and natural gas offshore
- Depletion of fisheries resources
- Dredging of harbor channels
- Enlargement of port facilities
- Coastal flooding and storm damage protection
- Public access to beaches, ocean and estuarine waters
- Private development on salt marshes and in public waters
- Pollution abatement needs
- Ownership of and construction on barrier dunes
- The impacts of population increases on municipal facilities
- The seaward ownership of beaches and construction thereon
- Conflicts between pleasure and commercial craft and between land transportation and waterborne transportation

GOALS AND OBJECTIVES:

- To produce institutions and procedures enabling rational management of New Hampshire's coastal resources.
- To develop an inventory of coastal resources, including land use, ownership, and socio-economic data, and baseline ecological profiles of the remaining natural and modified coastal systems.
- To develop predictive models to aid in evaluating the impact of alternative development actions and understanding the effect of activities on the coastal environment.
- To improve environmental impact statements for major activities in the coastal zone by making more stringent the requirements for the preparation, detail, and use of such statements in making specific decisions.
- To establish management goals for various coastal resources, identifying permitted uses, and protective measures where necessary.

OVERALL PROGRAM DESIGN:

Data Collection: The Strafford-Rockingham Regional Council will be responsible for collecting all currently available data on natural resource characteristics, population, and existing land and water use patterns. Information gaps which have been identified and which will be filled during the first program year are: the status of commercial and recreational fisheries (by the Fish and Game Department), harbor capacity (by the New Hampshire Port Authority), park and recreation capacity and coastal industry impact (by the Department of Resources and Economic Development). This information will be mapped by the SRRC and should serve as a basis for designation of areas of particular concern.

Planning and Policy Framework: The information collected above, together with water quality recommendations provided by the Water Supply and Pollution Control Commission, air quality recommendations from the Division of Public Health, and a jurisdictional study conducted by the Water Resources Board, will be used by the SRRC to develop a series of preliminary policy statements on permissible uses within the coastal zone. These statements will be in the form of recommendations to the Office of Comprehensive Planning, and will be developed in the second year.

Boundary Delineation: The preliminary coastal zone boundary will be examined in terms of the data collected during the first year, and may be refined at the end of the first year. However, final determination of the coastal zone boundary will await completion of the administrative framework discussed below.

Administrative Framework: The Office of Comprehensive Planning will prepare the framework within which the State's coastal zone management program will be implemented. State, regional, and local roles and responsibilities will be determined, required legislation will be drafted, and the necessary organizational structure, staffing requirements, decision-making processes, and appeal procedures will be developed. This work will be begun in the first year and completed in the second.

PUBLIC PARTICIPATION:

The SRRC, which will do most of the planning and policy development work, has a board composed of elected municipal officials as well as private citizens of diverse backgrounds. The SRRC also has ad hoc committees, containing other private citizens, for various major issues. In addition, the ongoing public education programs of the SRRC, including lectures, speeches, press and radio coverage, will be used to foster public participation in the State's CZM development program. The required public hearings will be conducted by the State, as will be the meetings and hearings it holds as a part of other ongoing planning efforts. Also noteworthy is New Hampshire's Right-To-Know law, which mandates public notice of and access to almost all decision-making processes.

INTERGOVERNMENTAL COORDINATION:

Coordination of State agency involvement will be through the 11-member Council of Resources and Management, which is chaired by the Director of State Planning within the Office of Comprehensive Planning. Any affected agencies which are not members will be asked to participate on an ex officio basis.

The Strafford-Rockingham Regional Council, which includes all 42 municipalities within the State's preliminary coastal zone boundary, will serve to coordinate local input and communicate the local perspective to the Office of Comprehensive Planning.

Coordination with other States and communication with Federal agencies will be handled through the New England River Basins Commission.

COASTAL ZONE PLANNING AREA:

New Hampshire will use the boundaries of the Strafford-Rockingham Regional Council (SRRC) and the State's offshore waters to define its preliminary coastal zone. Within the area of the SRRC, however, efforts will be focused on the first tier of coastal municipalities. It is recognized that different land uses will have measurable effects at varying distances from the water's edge, and New Hampshire therefore reserves final delineation of the boundaries to a later date.

NEW JERSEYGRANT RECIPIENT: Department of Environmental ProtectionOTHER MAJOR PARTICIPATING AGENCIES: NoneDEVELOPMENT PERIOD: Three years; beginning June 30, 1974FUNDING: \$275,000 (Federal) \$412,500 (Total)CURRENT STATUS:

The Department of Environmental Protection was created in 1970 to administer all environmental legislation in New Jersey. Within the DEP, the Office of Environmental Analysis is assigned general responsibility to develop new programs to the point where they can be implemented by the line enforcement agencies of the Department. At present, there are three laws affecting the management of New Jersey's coastal zone.

The State owns the lands at or below the mean high tide line. Before a property owner can develop such lands, he must obtain a riparian grant or license from the State. The DEP has complete discretion to convey riparian lands, whether by lease, license, or sale. In exercising this authority, the DEP is to consider the total environmental consequences of proposed development.

The Wetlands Act of 1970 authorizes the DEP to control land use on all tidal marsh areas, including saline, brackish, or freshwater marshes. Before controlling wetland activities, the DEP must map the areas, prepare regulations, notify local property owners affected, and hold public hearings in each affected county. Maps at 1:2400 will be completed, and all wetland areas will be regulated by September, 1974.

The Coastal Area Facility Review Act requires a DEP permit for the construction of certain facilities within the coastal area specified in the Act. CAFRA directs the DEP to inventory the coastal zone, including existing development, and to assess the capability of the coastal zone to accommodate further man-made stresses. This inventory must be completed and presented to the Governor and the Legislature by September, 1975. By September, 1976, DEP must develop alternate long-term strategies for the management of the coastal zone and choose one to be the approved coastal zone management strategy.

PROBLEMS AND ISSUES:

- Large-scale uncontrolled residential and commercial development.
- Retention of the physical and biological value of wetlands.
- Maintenance of the supply of high quality, readily accessible recreation areas.
- The adverse effects of fossil fuel and nuclear power plants and solid and liquid waste disposal methods on coastal resources and ecosystems.

- The decline of older, resort-oriented urban areas such as Asbury Park and Atlantic City.
- The impacts of oil discharges and spills on marine life and beaches.
- Recreational and economic impacts of declining shellfisheries.
- Beach erosion and shoreline stability.
- The impacts on food chains and recreation of oceanic waste disposal.
- Maintenance of commercial and recreational navigation channels.

GOALS AND OBJECTIVES:

- To control coastal land and water uses so as to enhance the environment and to prevent further degradation, while achieving maximum utilization of these resources by present and future generations.
- To enhance recreational use of the coastal zone resources, and to make recreational facilities more available.
- To minimize the conflicts and adverse environmental impacts of commercial, residential and industrial uses of the coastal zone.
- To conserve the biological productivity of coastal wetlands.
- To maintain a balance of acceptable air and water quality while meeting social and economic needs.
- To preserve for posterity such areas of unique value as the New Jersey Pine Barrens and the Mullica River.
- To preserve open spaces for recreational use and wildlife habit.
- To encourage the location of land and water uses damaging to the coastal environment in environmentally suitable areas.
- To reverse the decline of the older urban resort areas such as Atlantic City and Asbury Park.
- To reverse the decline of recreational and commercial shellfisheries.
- To undertake programs to offset the erosion of beaches, river banks and land areas.
- To minimize storm and flood damage to life and property.

OVERALL PROGRAM DESIGN:

Environmental Inventory: First year work will concentrate on development of an environmental inventory, mandated by CAFRA to be completed by September, 1975. The basic areas of investigation include natural resources, current land use, mean high water line, wetlands delineation and the identification of all agencies with coastal zone responsibilities. Much of the information will be presented as overlays on a 1:24,000 scale base map of New Jersey's coastal zone. Wetlands delineation and mean high water lines will be drawn at 1:2400.

Land Use Monitoring Techniques: Techniques for detecting and assessing changes, both natural and man-made, within the coastal zone will be identified and evaluated. Particular emphasis will be placed upon remote sensing, including aircraft photography and satellite imagery. The DEP has conducted an ERTS-1 experiment to determine the practical value of satellite data. The technique offers promise as a monitoring tool, but further development is required.

Land Use and Natural Resource Impact Model: A matrix will be developed to identify activities associated with various land uses, the environmental impacts of these activities, and the land use or natural resource information needed to analyze these impacts. This matrix will be used to help identify permitted land uses.

Information System: Computerized techniques for display, storage, retrieval, and analysis of inventory data will be investigated to determine the extent to which they can aid the decisions which must be made in implementing the management program.

Permissible Land and Water Uses: Beginning in the second year and drawing on the environmental inventory, indices will be established for environmental and economic impacts of land and water uses. This will help determine the location, extent and conflicts of existing and future land uses, and identify those uses with direct and significant impacts on coastal waters. Suitability analyses will then be used to determine permissible land and water uses.

Geographic Areas of Particular Concern: New Jersey's shorelines, beaches, flood plains and wetlands are already recognized and managed as critical areas. Criteria will be developed and procedures established to enable specific areas to be preserved or restored for their conservation, recreational, ecological or aesthetic values.

Means of State Control: As the environmental inventory nears completion, the DEP will review existing controls, investigate alternative State and local controls, and evaluate modifications which may be required for adequate control of land and water uses. As part of this task, the controls exerted by Federal agencies on Federally administered lands will be examined to determine their relationship to existing and proposed State controls. Part of this effort will include a "national interest" input into the operation of the management program.

Designation of Priority Uses: At the beginning of the third year, when the process of land use control is completed, the DEP will establish guidelines for priorities of uses within specific geographic areas throughout the coastal zone.

Structure for Program Implementation: Alternative organizational structures will be evaluated for implementation of the CZM program, and an appropriate recommendation will be made to the legislature.

PUBLIC PARTICIPATION:

Initially, the principal vehicle for public participation will be the environmental commissions and other citizen groups. The commissions, composed of interested citizens, have been established in many of the State's municipalities to advise local government officials on matters of environmental concern. A more intensive public participation and education program will be designed for the second and third years. During the second year, local, county, and regional planning boards and the environmental commission within the coastal zone will be asked to review the inventory results and to assist in establishing guidelines and criteria. Public hearings will be held on the plan during the third year.

COASTAL ZONE PLANNING AREA:

The boundaries of New Jersey's coastal zone include the boundaries of the coastal area specified in CAFRA, the mean high water line where it extends beyond the CAFRA area and the upland boundary wetlands delineated pursuant to the New Jersey Wetlands Act of 1970. The planning area for the environmental inventory will include all counties having shorelines and river banks subject to tidal action. The results of the planning area inventory will be evaluated to determine whether changes of the coastal zone boundaries should be recommended to the Legislature.

NEW YORK

GRANT RECIPIENT: Office of Planning Services

OTHER MAJOR PARTICIPATING AGENCIES: Department of Environmental Conservation;
various local and regional bodies

DEVELOPMENT PERIOD: 3 years; GRANT NOT YET AWARDED

FUNDING: \$550,000 (Federal) 825,000 (Total) REQUESTED

CURRENT STATUS:

The Department of Environmental Conservation (DEC) and the Office of Planning Services are the two major State agencies involved in coastal zone planning and management activities. Under the Tidal Wetlands Act of 1973, the DEC is preparing an inventory of all tidal wetlands; upon completion of this inventory, the DEC will regulate wetlands development through a permit system. Under the Stream Protection Act, the DEC regulates dredge and fill activities in the State's navigable waters through a permit system. Other activities regulated by the DEC include shellfish protection, fish and wildlife management, beach erosion control and hurricane protection. OPS provides financial and technical support to local units of government (cities, town, villages) in the coastal zone in the adoption of zoning and other subdivision controls. OPS also maintains the State's Land Use and Natural Resource Inventory, a computerized statewide land and related information system. The State Public Service Commission conducts public hearings and requires environmental impact analyses in connection with applications by utilities companies for certificates of environmental compatibility and public need, which are required conditions for construction of major transmission facilities. Similar actions are carried out by the State Board on Electric Generation Siting and the Environment in the case of steam electric generating facilities. New York's Sea Grant Program has numerous studies underway relating to coastal zone planning and management issues. Studies and programs are also conducted by the Regional Planning Boards and Commissions in the State's Great Lakes and Long Island Sound-Atlantic Ocean coastal zones.

PROBLEMS AND ISSUES:

- Water quality and wastewater handling need to be improved in a manner consistent with coastal zone goals and objectives.
- Competing land and water uses must be reconciled with the need for economic and social development as well as the preservation of natural and scenic features.
- Further losses or degradation of the State's wetlands need to be prevented without causing undue economic hardship.

- Opportunities for public recreation and enjoyment of coastal resources need to be achieved without undue adverse impact upon private property.
- Fish spawning areas and other wildlife habitats need to be protected and restored.
- Sites that satisfy generating facility requirements need to be developed for such purposes without undue impacts upon other coastal zone resources.
- Shoreline areas need to be managed to minimize the impact of storms, winds and flooding.
- Maximum voluntary cooperation among State and other levels of government needs to be achieved.
- The economic advantages of existing or potential major ports and harbors need to be maximized.

Great Lakes Issues

- Continued expansion of economic activities and employment opportunities need to be achieved without undue damage to natural resources and scenic values.
- Tourist and recreation values should be more fully realized.
- Lake levels and stream flows need to be regulated in a manner that reconciles different uses.

Marine Coast Issues

- Recreation opportunities for urban residents need to be increased.
- Management of the coastal zone should be directed toward improvement of water supply.
- Ways in which to accommodate port and related waterfront development in New York City need to be devised.

GOALS AND OBJECTIVES:

- To preserve and protect wetlands, wildlife habitats, fish spawning grounds, shellfish beds, distinct or unique geologic formations.
- To regulate the use and removal of the State's mineral resources.
- To provide opportunities for public access to and public recreation in the coastal zone.
- To preserve and maintain high quality scenic views and vistas, historic and unique natural sites, districts, and artifacts.
- To promote orderly economic development in the coastal zone, particularly over large tracts of undeveloped land, along beach fronts and shorefronts, so as to avoid land use conflicts and the unnecessary degradation of natural resources.
- To provide for regional infrastructures such as ports, power plants, sewage treatment plants and other water-oriented commercial and industrial developments in order to maintain the economic viability of coastal communities and to satisfy national interests.
- To improve air and water quality to meet required standards.
- To assure an adequate water supply, including the protection of watersheds, aquifers and recharge basins.
- To preserve high quality agricultural and forest lands.

OVERALL PROGRAM DESIGN:

Goals and Objectives: During the first year, the preliminary goals and objectives will be reviewed and revised as necessary to insure that these are formulated in a rational manner and that they accurately reflect the viewpoints of interested public and private parties in the coastal zone. Though this element will be supervised by the OPS, the bulk of the work will be accomplished by sub-State entities with substantial public input.

Information Sources and Requirements: Large amounts of data and information related to coastal zone planning and management already exist. During the first year, this information will be evaluated in terms of its availability and applicability, and critical information for the analysis of natural resources and land and water uses will be assembled. This work will be done by the OPS and DEC along with the Regional Planning Boards, counties, cities, and towns.

Analysis of Natural Resources: The DEC will prepare maps of the wetlands of Long Island, Hudson River and the Great Lakes from aerial photographs and existing maps. An ongoing flood hazard mapping project jointly conducted by the DEC and the United States Geologic Survey will be coordinated with the coastal zone management program. Alternative solutions for flood and erosion damage reduction will be evaluated. Existing State and Federal programs for shore protection and hurricane control will be integrated into the coastal zone management program. Using existing information, potential areas of geographic concern will be mapped at a uniform scale and evaluated.

Analysis of Land and Water Uses: Potential development areas will be identified, as well as possible conflicts between environmental and economic concerns. A pilot demonstration project will be conducted in New York City resulting in technical reports on such waterfront topics as port development, recreation, water resources and water quality. A pilot demonstration project will be conducted in Rochester leading to a River Estuary Plan dealing with preservation of natural features, compatible industrial, commercial and residential uses, and recreational and transportation facilities. Water supply needs and problems for regional segments of the coastal zone will be evaluated, including analyses of water supply service areas, projected demands and the relationship between projected land uses and the available water supply.

Legal and Institutional Study: Existing Federal, State and local legislation and regulations will be inventoried and analyzed to identify gaps. A pilot demonstration project will be conducted in Troy, resulting in a model local ordinance suitable for adoption by coastal zone communities.

Designation of Priority Uses: A system for assigning priorities to uses within geographic areas of particular concern and within the coastal zone management area in general will be developed. Factors to be considered in formulating priority rankings will include location (particularly

relative to existing centers of activity, transportation facilities, power supplies) magnitude of use, economic, social and cultural impacts, and the conflicts and compatibility with other uses.

Permissible Land and Water Uses: Permissible uses will be defined on the basis of the priority ranking system, environmental assessments of the capabilities of specific areas to accommodate various types and intensities of use, social and economic needs and impacts, air and water quality standards, limitations imposed by existing State or local laws and regulations, and the expressed preference of all levels of government and other concerned bodies.

Means of Exerting State Control: Existing State and local laws will be evaluated to determine their effectiveness in enforcing the permissible land water uses assigned to various segments of the coastal zone and in meeting the goals and objectives of the management program. This evaluation will also indicate the State and local control mechanisms and relationships which need to be strengthened or modified. The necessary legislative package and recommendations will be assembled.

PUBLIC PARTICIPATION:

In the first year, at least two citizen advisory councils will be formed to promote citizen participation in program formulation. A series of regional public meetings, conferences and workshops will be held throughout the State during the first year. Public hearings will be held throughout the three years of program development.

INTERGOVERNMENTAL COORDINATION:

Many of the tasks to be undertaken in the first year will be accomplished by local, county and regional agencies as well as other State agencies. All State and sub-state entities with coastal zone activities will have an opportunity to review and comment upon all work tasks and program elements, though no mechanism has been established yet. New York will work through its Federal Regional Council to establish communications with Federal agencies active in the coastal zone. Through the Great Lakes Basin Commission and the New England River Basins Commission, New York will discuss and resolve interstate coastal zone management issues.

COASTAL ZONE PLANNING AREA:

Along the Great Lakes, New York's coastal zone planning area includes the first tier of coastal counties and Cayuga County. In its marine coastal zone are included Long Island and the first tier of counties along the Hudson River up to and including Albany and Rensselaer Counties. During the first year, alternative coastal zone management boundaries will be explored, and the final boundaries will be set in the third year.

NORTH CAROLINA

GRANT RECIPIENT: Department of Natural and Economic Resources

OTHER MAJOR PARTICIPATING AGENCIES: Office of Marine Affairs;
Department of Administration; Coastal Resources Commission

DEVELOPMENT PERIOD: 2 years; beginning June 30, 1974

FUNDING: \$300,000 (Federal) \$500,000 (Total)

CURRENT STATUS:

The Coastal Area Management Act of 1974 confers the primary authorities and duties for development of North Carolina's coastal zone management program on the newly created Coastal Resources Commission. The 15-member State-level Commission is responsible for establishing policy, developing regulations, and adjudicating permit applications. The Commission draws staff support from the Department of Natural and Economic Resources (DNER), and from the State Planning Division and the Office of Marine Affairs in the Department of Administration.

The Act provides for a cooperative State-local program, with the State establishing areas of particular environmental concern and acting in a guideline-drafting and programmatic review capacity to local governments, except where the local units do not elect to or fail to exercise their responsibility. The 20 coastal counties will develop land-use plans to be adopted by the Commission and then take on enforcement responsibility, including permit letting for local developments (the Commission controls permit letting for major developments).

A major source of informational and inventory input into development of North Carolina's coastal zone management program will come from the preliminary planning document, North Carolina's Coastal Resources. This document is the product of a joint Federal-State committee appointed to work with the Marine Science Council in developing a model marine resource development plans.

PROBLEMS AND ISSUES:

- Provision of economic development and transportation facilities while still preserving and enhancing wildlife and fisheries habitats, cultural, historic, scenic and scientific resources.
- Protection and improvement of water quality, including management of solid waste disposal.
- Provision of a variety of shoreline recreation opportunities, and protection of public rights of access to shoreline land and waters.
- Minimization of the impact of large-scale agricultural activities on coastal resources.

GOALS AND OBJECTIVES:

- To preserve and manage those natural ecological conditions of the estuarine system so as to protect, perpetuate, and enhance its natural productivity and its biological, economic, and aesthetic values.
- To ensure that development and preservation of the land and water resources of the coastal area proceed in a manner consistent with the capability of the land and water for development, use, or preservation based on ecological considerations.
- To establish clear-cut objectives, policies, guidelines, and standards for all public and private uses of coastal lands and waters, and to develop effective institutional arrangements to accomplish these objectives.

OVERALL PROGRAM DESIGN:

North Carolina plans to develop its management program by the synthesis of three distinct approaches: 1) implementation of the Coastal Area Management Act; 2) utilization of advisory services from State agencies and university programs to county and municipal government officials; and 3) a strong emphasis on public involvement.

A. Implementation of Legislation

Interim Areas of Environmental Concern: The Coastal Resources Commission is in the process of designating interim areas of environmental concern following public hearings recently held in coastal counties. These interim areas primarily include dunes, beaches, historic sites, recreation and wildlife management areas, tidal marshes, coastal inlets, flood hazard areas, public water supply areas, and riverine floodways. Interim designations will be replaced by a final, expanded list of areas based on special studies and nominations from county units and the public.

Guidelines Preparation: An early effort will be the drafting of guidelines for the preparation of the land and water use plans by local units. These guidelines will specify objectives, policies, and standards, and give particular attention to the appropriate nature of development within areas of environmental concern as designated by the Commission. These guidelines will be available in early 1975 for use by counties in preparing their plans.

County Land and Water Use Plans: The legislation requires that a land and water use plan be drawn up for each county in the coastal zone. A major part of the State effort during the two-year development period will be a local planning grant program to support the plan preparation work. The plans will be based on guidelines approved by the Commission and represent the first step in determinations at the local level of what constitute permissible uses and/or priorities within the individual county jurisdictions. The legislation requires that these plans be submitted to

the Commission for review within 10 months of promulgation of the final guidelines. These plans will be the primary means for controlling activities within areas of environmental concern, because no permits will be approved in these areas which are not consistent with the criteria in the approved plans.

Centralization of Coastal Permit Systems: The Coastal Area Management Act provides that before October, 1976, all existing regulatory permits within the coastal area must be administered in coordination and consultation with the Coastal Resources Commission. A study to develop a more coordinated and uniform system of permit control in the coastal area is authorized, with the Commission directed to report its recommendations to the 1975 North Carolina General Assembly.

B. Advisory Services

Coastal Area Management Service: The Office of Marine Affairs has established a coastal area management service to inform county units of sources of information, planning projects of interest, and ongoing projects which will be developing information of use in their planning efforts. The service will develop and maintain the capability, throughout the program development period, to react to local requests and needs within a period of hours rather than months.

Remote Sensing and Resource Data Acquisition: A program will be established in the DNER to create a repository for remote sensing imagery and shoreline maps. Acquisition of these items and development of interpretive capability are planned as first year tasks.

Inventory and Mapping of Natural Areas and Areas of Environmental Concern: The DNER has been conducting an inventory of natural areas in North Carolina for several years. A first year task will be to complete the inventory for the coastal counties and to summarize and map the data as part of the local land-use plans.

Additional inventory and mapping work, which will run through the first year and one-half of program development, will center on the description of regions designated as areas of environmental concern.

PUBLIC PARTICIPATION:

A major step to be taken in development of North Carolina's public participation program will be the development of a handbook describing the impacts of various land and water uses in terms of the changes they will make in the lives of individual citizens. In addition to development of the handbook, an effort to educate the public will be carried out through a television documentary series showing specific problems in coastal areas.

Preparation and dissemination of information about the Statewide effort to manage coastal land and water uses will begin early in the program in order to solicit public comment. A variety of dissemination techniques will be used including: television broadcasts, radio and newspaper coverage, public meetings and workshops, citizens advisory panels, and public hearings.

INTERGOVERNMENTAL COORDINATION:

Coordination between State, local, and substate regional interests in coastal zone management is provided for by a 47-member Coastal Resources Advisory Council which advises the Coastal Resources Commission, the DNER and Department of Administration. Membership in the Council is divided among heads of State agencies, representatives from the four multi-county planning districts of the coastal area, representatives of each of the 20 coastal counties, and representatives of municipalities and the scientific community.

The Office of Marine Affairs (the agency given the primary coordination responsibility) also works closely with the multi-State Coastal Plains Regional Commission which is presently funding three pilot projects to serve as testing grounds for development of integrated management systems in the coastal area.

COASTAL ZONE PLANNING AREA:

The coastal area is defined in the Coastal Area Management Act as the 20 counties which (in whole or in part) are adjacent to, adjoining, intersected by, or bounded by the Atlantic Ocean or any coastal sound. Coastal sounds are estuaries landward to the limit of seawater encroachment under normal conditions. The feasibility of this boundary definition and its possible refinement will be assessed during the first months of program development.

OHIO

GRANT RECIPIENT: Department of Natural Resources

OTHER MAJOR PARTICIPATING AGENCIES: Northeast Ohio Areawide Coordinating Agency; Toledo Metropolitan Area Council of Governments; Eastgate Development and Transportation Agency

DEVELOPMENT PERIOD: 3 years; beginning May 15, 1974

FUNDING: \$200,000 (Federal) \$366,300 (Total)

CURRENT STATUS:

The Department of Natural Resources has conducted almost all of Ohio's coastal zone activities. Before 1973, most activities involved engineering, geologic and commercial studies of Lake Erie and its shorelands. The Shore Erosion and Geological Survey Divisions of the DNR has been conducting basic investigations since 1951 to support shore erosion projects and commercial mineral extraction studies. With the opening of the St. Lawrence Seaway, the Division of Shore Erosion began developing plans in cooperation with the Corps of Engineers for harbor projects. The Division of Shore Erosion was replaced by the Lake Erie Section in the Division of Geological Survey in the early 1960's. Water resources studies and planning have been conducted by the DNR's Division of Water, and fish management programs have been conducted by the DNR's Division of Wildlife. Flooding is a major problem because of the extensive development along Lake Erie. DNR's Flood Plain Management Section is working to bring vulnerable communities into Federal flood insurance programs.

In February, 1973, the DNR organized an Ohio Shore Zone Management Workshop to coordinate the policies and positions of the appropriate State agencies in the development of Ohio's coastal zone management program. As designated lead agency, the DNR developed Ohio's Section 305 application and is administering its Section 305 grants.

PROBLEMS AND ISSUES:

- The destruction or deterioration of the resources of the Lake Erie shore zone, particularly water quality, is a major problem.
- Intensive development along the Lake shore has given rise to a complex system of competing land and water uses.
- Record high water levels in the Lake Erie Basin have greatly increased the incidence of flooding, the rate of shore erosion, and resulting damage to public and private property.
- Jurisdictional overlap, duplication of efforts, and fragmented approaches to a complex series of problems are obstacles to be sorted out and overcome before an effective coastal zone management program can be put together.

GOALS AND OBJECTIVES:

- To develop a comprehensive overview of the shore zone resource base and a summary of the problems associated with the use of these resources.
- To inventory legal and administrative arrangements underlying State, regional and local planning and management programs in the shore zone, and to recommend changes necessary to implement the shore zone management program.
- To coordinate the activities of Federal agencies, the Great Lakes States, and Ohio State's regional and local agencies in the program development and implementation process.
- To develop the functional elements of a comprehensive shore zone management program.
- To provide the resources necessary to conduct special studies which may result from issues identified in the first year program.

OVERALL PROGRAM DESIGN:

Ohio's program design has two components. The first, Policy Development and Problem Identification, will be accomplished during the first year. The second, Technical Plan and Management Program, will be developed in the second and third years.

Policy Development and Problem Identification:

Resource Analysis: The resources of the Ohio shore zone will be inventoried, and the economic, social, and environmental implications of existing and future uses of the resources will be assessed.

Legal and Administrative Analysis: State, regional, and local legislative and administrative procedures relevant to planning and management of the shore zone will be reviewed and analyzed. As a result of this analysis, a legislative package will be prepared to achieve an effective shore zone management program.

Synthesis: The results of the first year's work will be synthesized into a cohesive package. This will be used to formulate goals and objectives to be used as a framework for the technical plan, to identify the need for special studies and data acquisition, and to recommend necessary administrative arrangements.

Technical Plan and Management Program:

Permissible Use Review Process: Criteria will be developed to define the impact thresholds of various uses of the shore zone resources. These criteria are to represent the tolerance limits within which proposed uses will not adversely affect the area proposed for such use. A decision-making process and administrative arrangement will be established to place the review of proposed uses by these criteria at the appropriate level (or levels) of government. The results of this work will be presented publicly for review and comment.

Priority of Use System: The permissible use criteria will be combined with economic, social and environmental studies to produce a priority rating system for any proposed use in the shore zone. This system will aid in allocating shore zone resources to the most appropriate use.

Areas of Particular Concern: Definitions and criteria to identify areas of particular concern will be developed. The focus will be on intensively developing areas, key facilities, areas of greater than local concern, and naturally and environmentally significant areas. Ohio's shore zone will be inventoried to identify and delineate areas of particular concern. Planning and management techniques will also be developed for these areas.

Land and Water Resource Inventory Program: The data necessary to conduct the permissible use, priority of use, and areas of particular concern sub-programs will be collected and stored in the Ohio Capability Analysis Program (OCAP). All inventory data pertaining to the Ohio shore zone will be available upon request to all interested agencies and individuals.

Special Studies Program: This program will provide for special studies not directly provided for in the Overall Program Design which are essential to the program. Necessary special studies will generally be identified through the synthesis of the first-year's work. Two special studies have already been identified: a biophysical and political analysis to determine an appropriate inland boundary for Ohio's shore zone; and a legal and administrative study, supplementing the first year legal and administrative analysis program to support the implementation of the permissible use, priority of uses and areas of particular concern sub-programs.

PUBLIC PARTICIPATION:

Surveys, questionnaires, workshops, newsletters, and public hearings will be used to ensure that individuals and interested groups have ample opportunity to affect the development and implementation of the program. The elements of the technical program and management program will be formulated in the second and third years; each of these elements will be presented for public review and comment.

INTERGOVERNMENTAL COORDINATION:

Processes and mechanisms will be developed to resolve conflicts in the development and implementation of Ohio's program among Federal agencies, Great Lakes States, Ohio State, regional and local agencies affecting the shore zone. Ohio will identify, survey and initiate workshops with Federal agencies to determine the most suitable arrangement for coordination. Meetings with the seven other Great Lakes States will be organized to identify issues and problems, discuss the adequacy of existing coordinative mechanisms and formulate any additional programs necessary to achieve adequate coordination. The Ohio Shore Zone Management Workgroup will be the forum for coordination among State agency, and the A-95 review procedures will be used to coordinate with regional and local agencies.

COASTAL ZONE PLANNING AREA:

The Ohio shore zone planning region encompasses the first tier of coastal counties and Wood County. This defined zone does not necessarily represent the geographic area in which the management program will be implemented. The definition of the regulatory area will be developed as a part of the program development effort.

OREGON

GRANT RECIPIENT: Oregon Land Conservation and Development Commission (LCDC)

OTHER MAJOR PARTICIPATING AGENCIES: Oregon Coastal Conservation and Development Commission (OCC&DC)

DEVELOPMENT PERIOD: 1 year, beginning March 1, 1974

FUNDING: \$250,132 (Federal) \$419,699 (Total)

CURRENT STATUS:

The State of Oregon's concern with protecting its coastal resources took a major step in 1969 with passage of the "Beach Access Bill" giving Oregon's citizens the right to unrestricted use of the State's beaches up to the vegetation line. In 1971, the State legislature created the Coastal Conservation and Development Commission (OCC&DC). The OCC&DC was directed to develop a natural resource management plan and to submit the plan to the 1975 session of the Oregon legislature. The same year, a coastal construction moratorium was imposed on all State agencies by executive order until a shoreland management plan could be implemented.

Oregon's efforts were carried into 1973 by passage of Senate Bill 100 establishing the Land Conservation and Development Commission (LCDC). Four of the Commission's primary duties are to: (1) prepare statewide planning guidelines; (2) review regional, county and city comprehensive plans for conformance with statewide planning goals; (3) issue permits for activities of statewide significance; and (4) recommend the designation of areas of critical State concern.

Most of the State's grant is going to the OCC&DC so that the Commission can complete its legislatively mandated plan. To date, OCC&DC has completed an inventory of coastal wetlands and the initial draft of an inventory of historical and archaeological sites. In addition, an extensive public involvement program including videotape presentation and a series of public workshops has been undertaken.

PROBLEMS AND ISSUES:

- Fragmentation of decision-making by special purpose units of government.
- Lack of a coordinated coastal zone planning system.
- Lack of public awareness of environmental problems.
- Inadequate information base for management of coastal resources.
- Conflicting economic and environmental interests.
- Environmental problems related to intense summer use and winter depopulation.

- To favor preservation of natural over man-made processes to the extent necessary to insure maintenance or improvement of environmental quality.
- To ensure coordination with local, State and Federal agencies.
- To develop sound resource inventory and economic information as a basis for resource management decisions.
- To create public awareness of the need for resource management and ensure citizen involvement in the planning process.

OVERALL PROGRAM DESIGN:

A. Policy Development Process

Draft policies will be developed for 18 categories of natural resources as a foundation for development of more detailed standards for resource management. These categories are: (1) estuaries; (2) wetlands; (3) floodplains; (4) geologic hazards; (5) beaches and dunes; (6) shorelands; (7) continental shelf; (8) unique scenic features; (9) historic and archaeological sites; (10) scientific natural areas; (11) wildlife and fish habitats; (12) forests and watershed lands; (13) freshwater lakes and streams; (14) agricultural lands; (15) public recreation areas; (16) industrial lands; (17) residential lands; and (18) aesthetics.

It is expected that with the completion of local government and public review of these draft policies a final report of the management policies will be adopted by the end of December 20, 1974.

B. Inventory and Evaluation Process

Economic Survey and Analysis: A joint State and Federal economic resources capability study is being conducted under the coordination of the Pacific Northwest River Basins Commission. A summary document containing an overall evaluation of the coastal economy will be completed by the River Basins planning team. At the same time, economic planning studies are being conducted by local economic development districts in the coastal zone. The OCC&DC plans to produce a report tying these studies together and summarizing interactions of economic and environmental planning efforts in the coastal zone by the end of November, 1974.

Planning Activities: A summary report of coastal planning activities being conducted by coastal counties, communities and councils of government has been completed (January, 1974) as a first step toward coordination with local and regional efforts.

Inventory and Evaluation of Coastal Resources: In an effort to gather baseline data for development of management standards and to provide a basis for evaluating impacts of development proposals on coastal resources, inventories have been conducted in each of the 18 resources categories identified for policy development above. These categories were divided into primary and secondary groups representing respectively physiographic types (e.g. estuaries and wetlands) and areas of particular environmental concern (e.g. geological hazards and floodplains).

Each of the primary categories was described in terms of eight characteristics which include climate, geology, physiography, soils, hydrology, vegetation, wildlife and land use. Mapping of the resource categories was completed at the end of June, 1974, with analysis and evaluation of uses and values to continue into mid-September, 1974.

C. Implementation and Support Process

Standards for Natural Resources Management: The OCC&DC is charged with developing standards for natural resource management within the policy framework previously developed for each resource category. The standards, which are to be developed by January, 1975, will be designed to provide a framework for management decision-making at the local level.

Coordinated Mapping: In an effort to coordinate mapping programs being conducted by local, State and Federal entities along the Oregon coast, identification, collection and, where necessary, compilation of maps and aerial photography is scheduled to be carried out by the Oregon State Mapping Coordinating Committee.

PUBLIC PARTICIPATION:

To ensure widespread citizen involvement in the planning process, the LCDC by statute must appoint a Citizen Involvement Advisory Committee and hold public hearings throughout the State in preparing its statewide planning guidelines.

In addition, the OCC&DC is currently involved in an extensive public involvement program directed at determining management policies. The program includes a videotape presentation and a series of workshops in each coastal county and various population centers in the State.

INTERGOVERNMENTAL COORDINATION:

To achieve coordination between substate and State planning entities, the OCC&DC is working closely with the five Regional Councils of Government in the Oregon coastal zone. The Regional Councils are involved in regional land use planning, environmental assessment and review of development applications of regional impact. In addition, a strengthened relationship between OCC&DC and county planning agencies and port districts is being actively pursued.

The OCC&DC also serves as a point of coordination for the coastal planning and management functions of State natural resource agencies including the: Department of Geology and Mineral Industries, Department of Environmental Quality, Division of State Lands, Fish Commission, Game Commission, Nuclear and Thermal Energy Council, and Soil and Water Conservation Commission, among others.

Coordination with other States and with Federal agencies is achieved by participation by the Executive Director of OCC&DC on the Pacific Northwest River Basins Commission. In addition, Federal agency representatives serve as technical advisors to OCC&DC study groups.

COASTAL ZONE PLANNING AREA:

The coastal zone of Oregon is defined in OCC&DC enabling legislation as extending from the crest of the Coast Range on the east to the State's territorial jurisdiction on the west (seaward). This zone is subdivided by counties into four districts, in each of which has been established a coordinating committee of the OCC&DC.

PENNSYLVANIA

GRANT RECIPIENT: Department of Environmental Resources

OTHER MAJOR PARTICIPATING AGENCIES: Erie Metropolitan Planning Department;
Delaware Valley Regional Planning Commission.

DEVELOPMENT PERIOD: 3 years; beginning June 1, 1974

FUNDING: \$150,000 (Federal) \$225,000 (Total)

CURRENT STATUS:

Most land use controls in Pennsylvania are in the hands of local government. Uses of the Delaware River, mostly commercial shipping, recreational boating, and wastewater conveyance, are controlled by both the State and the Federal governments. At the State level, shipping and boating regulations are set by the Navigation Commission for the Delaware River; wastewater controls are administered by the Department of Environmental Resources (DER). The State has assisted the City of Erie in developing its harbor, and regulates fishing and boating on the Lake, as well as any construction, such as piers or pipelines, within the Lake. Water withdrawals from the Lake for public water supply systems are regulated by the State, as well as discharges into the Lake from either public or private sewage systems. Land controls consist primarily of permit regulation of any earthwork activity, in order to control erosion and sedimentation. Pennsylvania has had active programs in flood control and flood damage abatement for many years. Recently, flood plain management programs have been initiated. The Statewide Environmental Master Plan and the State Investment Plan will be coordinated with the coastal zone management program through the interagency coordination system.

PROBLEMS AND ISSUES:Problems Common to Both Coastal Zones:

- Duplicated authorities, fragmented responsibilities, and overlapping jurisdictions are all aspects of a problem which must be resolved before a consolidated management program can be established.
- A related problem is the resolution of potentially conflicting public rights and needs and private rights. The most urgent existing conflict in these rights is the use of coastal waters for waste disposal, and the larger issue of water quality.

Problems and Issues of the Lower Delaware River:

- In this heavily urbanized and industrialized area, wastes must be adequately treated and controlled to improve water quality without causing detrimental effects on the overall regional economy.
- The relatively small water surface area of the Lower Delaware River is generating a conflict between the heavy volume of commercial shipping and the rapidly increasing recreational

- boating traffic. As well, there is a problem posed by the disposal of polluted dredge spoil from the ship channels.
- The deterioration of the coastal zone waterfront is an economic and esthetic problem requiring renewal techniques.
 - The Tinicum Marsh poses the problem of preservation (or conservation) as a wildlife sanctuary of an area surrounded by pressures from commercial and industrial interests.
 - Periods of drought create water supply problems occasionally when the salinity of coastal waters increases.
 - The fresh water-salt water interface in the estuary may move upstream due to divergence of river water for irrigation, transfers to other drainage basins, or consumptive losses in generating plants.
 - The Lower Delaware faces the pressure of new deep water ports, either along the shore or as man-made islands in the estuary.
 - Demands for sand and gravel production from the stream channel and along its shores call for extraction regulations.
 - During periods of low flow, the concentration of pollutants frequently acts to create an oxygen block, making it impossible for anadromous fish to migrate upstream to their spawning areas.

Lake Erie Problems and Issues:

- Restoration of the substandard water quality in Presque Isle Bay is important to the Erie area. A related problem is the polluted harbor bed and ship channel: dredgings from these areas cannot be used to nourish the beaches in the Presque Isle State Park.
- The high lake level is accelerating shoreline erosion, particularly at the Presque Isle peninsula.
- As in the Lower Delaware, a proper balance between urban-related needs and environment-related needs is required. Recreational demands on the Lake Erie coastal zone are very heavy, and recreational opportunities must be increased. Because the shoreline is privately owned for more than three-fourths of its length, ample access to coastal waters for fishing and boating is a severe problem.
- Exploration for natural gas in Lake Erie, an unpopular issue at present, may become active due to pressures of the energy crisis. If so, adequate management controls should be available.
- Sand and gravel extraction, both from the lake bed and along the lake shores, should be controlled.
- Shallow salt water, at depths of less than 100 feet along the edge of Lake Erie, may "bleed" up into fresh water zones and the Lake unless controls are instituted.

GOALS AND OBJECTIVES:

- To control erosion and sedimentation in order to benefit other coastal uses.
- To move unwanted materials to locations where their presence will minimize effects upon human activities and upon the natural systems on which such activities depend.
- To maximize public recreation opportunities through all forms of coastal-related outdoor activities.

- To minimize the combined economic, social, and environmental cost of moving materials and people.
- To optimize the beneficial effects of wetlands on coastal zone uses.
- To maximize public aesthetic opportunities through emphasis on the coastal qualities that please the senses or exalt the intellect or spirit.
- To provide ample, low-cost fresh water of a quality acceptable for current and anticipated uses.
- To maximize the economic advantages to commerce and industry from coastal locations.
- To maximize the sustained dollar value of the commercial fish catch extracted from coastal and related waters.

OVERALL PROGRAM DESIGN

Inventory and Analysis: Inventories will be compiled on existing conditions, resource uses and activities, and relationships, both natural and cultural. The collected information will be analyzed in terms of goals and objectives to derive alternative management techniques. Tentative realistic management objectives and levels of achievement will be established. Finally, the boundaries of the coastal zone for management purposes will be delineated. This work is scheduled for completion by the end of the first year.

Permissible Land and Water Uses: Criteria will be defined for identifying the impacts of land and water uses. Land and water use conflicts will be categorized, and sites identified for facilities serving greater than local needs. A list of permissible land and water uses for suitability and compatibility will be compiled. Criteria for designating critical and non-critical areas will be established. Finally, priority of uses will be assigned for both critical and noncritical land and water uses. This work will be completed in the second year.

Alternative Coastal Zone Management Programs: For each alternative, the appropriate lead agency will be selected and intergovernmental coordination mechanisms will be established. For each program, environmental and socioeconomic impacts will be assessed, and the costs of implementation established. Public reviews will be held to determine necessary revisions and recommendations.

Program Selection and Analysis: One program will be tentatively selected. A continuing program review, evaluation and revision process will be designed. Formal assessments of environmental impact, socioeconomic impact, and implementation costs will be made for the selected and alternative programs. Intergovernmental reviews and formal public hearings of selected and alternative programs will be held. The procedure will be repeated as necessary until a program is approved.

Necessary Additional Information: Much planning work has already been done at the local, regional, State, Federal, and interstate level. These plans may need to be evaluated and updated. As well, aerial photogrammetric maps will be compiled to give current planning information.

PUBLIC PARTICIPATION:

Program Development Committees will be formed, one in each coastal zone, to function as informal forums for public participation during the development of the management program. Membership will consist of representatives from local organizations such as planning commissions, citizens groups and industrial organizations. The committees will be chaired by the designated State agency and hold periodic open meetings. Formal public hearings will be held to receive citizen input concerning important elements of the management program. These hearings will be held in the local areas principally affected by the elements under consideration.

INTERGOVERNMENTAL COORDINATION:

A committee composed of representatives from each local government will be formed, one in each coastal zone. Existing organizational structures will be used insofar as possible, particularly at the county level. In Erie County, for example, collaboration with the Erie Metropolitan Planning Department will facilitate coordination of the various committees operating in the Erie coastal zone.

During program development, the Office of Resources Management of the Department of Environmental Resources will provide leadership for an ad hoc coordinating unit representing those State agencies with programs and responsibilities in the coastal zones. Depending upon final legislation, a similar organization of State agencies will be used during the implementation of the management plan to ensure effective communication and consequent promptness of decisions when needed in on-going State programs.

Interstate coordination will be handled through the Delaware River Basin Commission and the Great Lakes Basin Commission. Coordination with pertinent Federal agencies will be done on an individual basis by the State's designated agency.

COASTAL ZONE PLANNING AREA:

Pennsylvania's coastal zones may be divided into three segments: the water zone, intermediate zone, and use-impact zone. Tentative boundaries are as follows:

Lower Delaware: Water zone - between the Pennsylvania and New Jersey boundary and the normal water mark along the Pennsylvania shore. Intermediate zone - between the normal water mark and the 100 year flood mark. Use-impact zone - 300-1,000 feet beyond the intermediate zone.

Lake Erie: Water zone - between the international boundary and the normal lake level along Pennsylvania's shore. Intermediate zone - between the normal lake level line and the maximum extent of record wave "run-up". Use impact zone - approximately 1,000 feet landward of the intermediate zone.

During the development of the management program, the watershed areas landward of use-impact zones will be considered as primary source areas of effects on the three zones. The management programs, however, will focus on the coastal zones; i.e., the program elements will be confined to those areas. Some exceptions may occur, however, in cases of very significant impact sources outside the immediate coastal zones that may require special study.

PUERTO RICOGRANT RECIPIENT: Department of Natural Resources (DNR)OTHER MAJOR PARTICIPATING AGENCIES: Puerto Rico Planning Board;
Environmental Quality BoardDEVELOPMENT PERIOD: 3 years; beginning June 30, 1974FUNDING: \$250,000 (Federal) \$375,000 (Total)CURRENT STATUS:

The three agencies most active in coastal zone management affairs are the DNR, the Planning Board and the Environmental Quality Board. The DNR is responsible for Puerto Rico's natural resources and is currently active in fisheries management, forestry programs, physical and biological oceanography studies, water resources planning, beach stabilization and control, and mangrove preservation programs. The DNR issues permits for sand extraction and exercises control over dredge and fill projects in navigable waters. With HUD 701 funding, the Planning Board is completing an island-wide master plan, including the recommendation of areas for heavy industry, industrial ports, airports, and major highway and rapid transit facilities. In conjunction with the Department of Agriculture, the Planning Board is delineating prime agricultural lands suitable for commercial agriculture. Once such areas are delineated, the Planning Board may designate all or portions of these areas as protected agricultural zones in which conversion to urban or industrial use will be severely restricted. As well, the Planning Board is preparing master plans for the three SMSAs in Puerto Rico and will assist the DNR in delineating and describing natural areas suitable for preservation and protection. The Planning Board issues construction permits for all building activities within urban areas and administers zoning and subdivision controls.

The Environmental Quality Board (EQB) is formulating policies and programs to meet Federal and Commonwealth water quality standards. In cooperation with other agencies, the EQB is engaged in an ongoing program of air and water quality monitoring. Under Section 303 of the Federal Water Quality Act, the EQB is inventorying, analyzing, and planning for water quality management in the 17 management regions into which the island has been divided.

The DNR and the Planning Board have established a joint Coastal Zone Task Force as the vehicle for program development and interagency coordination.

PROBLEMS AND ISSUES:

- Identification and protection of unique natural areas and associated wildlife habitats along the coast.

- Controlling extraction of beach sand for construction purposes.
- Controlling coastal land uses, specifically including industrial and harbor development, power plant construction and operations, tourism industries, residential housing and waste treatment facilities.
- Public access to coastal areas, especially beaches.
- Control over expanded recreational use of coastal waters, including: protection of reefs and other features, sport fishing, boating, swimming and skin diving.
- Control over offshore structures and operations, superport construction, supertanker berthing and transfer operations, ocean shipping and navigation, offshore mineral extraction.
- Water pollution from human and industrial wastes and from siltation.
- Supporting the declining commercial fisheries.

GOALS AND OBJECTIVES:

- To designate estuarine areas for public acquisition. Approximately 10 areas will be examined during the course of the program and at least one such area is scheduled for early acquisition.
- To establish protected wildlife habitats and natural areas. Public access to all beach or salt water recreational and educational areas shall be maximized consistent with use limitations imposed by biological and physical considerations.
- To specify high priority critical areas within which uses and activities inimical to marine biological processes shall be expressly prohibited.
- To designate suitable offshore sites for the extraction of sand; such sites shall be sufficient in extent, volume of reserves and of such quality as to provide a continuing, long-term source for Puerto Rico's needs.
- To acquire potentially prime recreational areas, sanctuaries, wildlife habitats and other critical natural areas in the coastal zone which now are used for defense-related purposes, according to a systematic plan jointly agreed to by the relevant Federal agencies.
- To develop a program for increasing the commercial finfish and shellfish catch to the optimum sustainable yield.
- To undertake a program of mangrove rehabilitation, concentrating on those areas adversely affected by poor drainage practices.
- To protect barrier beaches from adverse development and to plant dune grasses, sea grapes and other protective vegetation.
- To relocate shoreline uses which do not warrant such location or whose location is inconsistent with economic and environmental criteria.
- To relocate "squatters" from the water's edge, including houseboats, which are in violation of existing statutes, with particular reference to critical natural areas, including the shorelines of La Parguera and Ensenada Honda.
- To investigate the economic and environmental costs and benefits of establishing buoys and/or man-made islands for the concentration of linked activities related to petroleum handling, fossil fuel power generation and other related industries.

- To establish a firm legal basis for securing the public's right of access to the shoreline; and simultaneously, to examine and establish the legality and conditions associated with "crown grants."

OVERALL PROGRAM DESIGN:

During the first year of program development, Puerto Rico plans to collect most of the necessary data, inventory the available legal and regulatory information, and identify the technical and institutional guidelines which will enable the subsequent analysis and formulation of a management plan to be completed in the second and third year of the grant program.

Permissible Land and Water Uses: Existing standards or criteria used by public agencies to assess proposed land and water use developments in the coastal zone will be collected and reviewed. Drawing upon these, criteria will be established to assess the impacts of existing, proposed, or projected uses and to resolve use conflicts. Coastal land and water uses and conflicts will be categorized and analyzed from the standpoint of economic and environmental costs and benefits. The work is scheduled for completion by the end of the first year.

Geographic Areas of Particular Concern: Criteria will be established to designate and categorize geographic areas of particular concern, taking into account immediacy of need, intensity of development, restoration or reclamation potential, etc. The areas themselves will be selected on the basis of pertinent biological, chemical, geologic, and environmental parameters. Field surveys will be used as necessary to obtain complete descriptions and maps. Estuaries, major reefs, coastal flood plains, submarine sand deposition areas, beaches, and intensely developed shore areas will be surveyed. Based upon the basic data thus collected, areas will be evaluated for designation as areas of particular concern and will be categorized in terms of immediacy of concern and priority importance with respect to restoration or preservation potential.

Means of Exerting State Control: All applicable laws, judicial decisions, regulatory powers of government agencies which are identified as means for exercising government control over land and water uses in the coastal zone will be compiled. These and the existing institutional arrangements among government agencies will be analyzed in terms of their potential effectiveness in controlling uses of the coastal zone. Alternative arrangements, both single agency and multi-agency, will be evaluated. An investigation will be made of ownership and legal issues pertaining to shorefront areas, with special reference to mangrove areas. Ownership rights conflicts will be resolved by investigating legal definitions concerning Spanish law and Commonwealth law. This work will start in the first year and continue through the second year of the program.

Designation of Priority Uses: Drawing on the preceding work elements guidelines will be established for the priority of uses, in particular areas of the coastal zone which will serve as a basis for regulatory

Preparation of Coastal Zone Management Implementation Plan: Draft copies of the management program will be circulated to appropriate State agencies for review and updating until a final plan for program implementation is approved. An outline will be prepared during months 10, 11 and 12 of the first year program. Beginning in the fourth month of the second year and continuing until termination of the third year, the implementation plan will be written, reviewed and completed.

PUBLIC PARTICIPATION:

Citizen members shall be appointed to the program's Steering Committee. In addition, periodic public meetings shall be held to review and discuss the program as it evolves. Before the program is submitted to the Governor for approval, at least one formal public hearing shall be held.

INTERGOVERNMENTAL COORDINATION:

A Steering Committee shall be established under the Chairmanship of the Secretary of the Department of Natural Resources. In addition to citizen members, the Committee shall be composed of the heads of those agencies participating in the formulation of the management program. The Committee will decide major policy issues and monitor the progress of the staff work. In addition to the Steering Committee, the Program Manager shall be assisted by an interagency task force composed of technicians from various agencies responsible for major work elements.

In order to coordinate operations with Federal agencies, particularly with regard to military installations, the Secretary of the DNR will create a Federal/Commonwealth Committee on Coastal Zone Issues. The establishment of this Committee is given high priority, and it will function continuously throughout the program.

COASTAL ZONE PLANNING AREA:

Delineation of preliminary coastal zone boundaries is not accomplished in the application, but is addressed as a task to be accomplished by the Planning Board in the first six months of the first year. Natural and man-made features will be reviewed using U.S.G.S. Quadrangle maps and aerial photos and field surveys. The influence of municipal and barrio boundaries on the definition of viable coastal zone boundaries will be assessed.

RHODE ISLANDGRANT RECIPIENT: Department of AdministrationOTHER MAJOR PARTICIPATING AGENCIES: Coastal Resources Management Council; Department of Natural Resources; University of Rhode Island Coastal Resources CenterDEVELOPMENT PERIOD: 2 years; beginning March 1, 1974FUNDING: \$154,415 (Federal) \$231,623 (Total)CURRENT STATUS:

The State of Rhode Island has been active in the area of coastal zone management since 1956, when "A Regional Guide Plan Study - The Rhode Island Shore" was published in response to the damage caused by Hurricane Carol in 1954. The next major step toward a comprehensive coastal resources management program came in 1969 when the Governor appointed a technical committee to study future management policies for Narragansett Bay and the entire coastal region. The committee's report in 1970 recommended that a coastal zone management mechanism be created to begin preparation of a comprehensive coastal management plan, and that the University of Rhode Island be given the responsibility to assist with technical research.

Response came to these recommendations in 1971 when legislation was enacted establishing the Coastal Resources Management Council (CRMC). The CRMC is closely related to the Division of Coastal Resources within the Department of Natural Resources, which serves as its staff arm, and to the Coastal Resources Center of the University of Rhode Island, which provides the Council with technical assistance.

The 17-member CRMC's primary responsibility is to direct the overall planning and management of Rhode Island's coastal region. The Council has authority to approve, modify, set conditions for, or reject any development proposal for coastal waters, with the "burden of proof" falling on the developer. The CRMC has power in coastal land areas to "approve, modify, set conditions for, or reject the design, location, construction, alteration, and operation of specified activities or land uses when these are related to a water area under the agency's jurisdiction..." The six specified activities and uses are: (1) power generating and desalination plants; (2) minerals extraction; (3) chemical or petroleum processing, transfer, or storage; (4) shoreline protection facilities and physiographical features; (5) intertidal salt marshes, and (6) sewage treatment and disposal and solid waste disposal facilities.

Plan development and coastal zone management are processing in parallel. As segments of the plan are developed, they become part of the CRMC's active management program. Segments completed to date include a unique natural areas and scenic vistas inventory, and a barrier beach conservation study.

PROBLEMS AND ISSUES:

- Preemption of the shoreline for the benefit of a few individuals at the expense of the public at large.
- Permanent preemption of public waters without planning and without cost to the beneficiaries through construction of docks, breakwaters, marinas, and private residential developments.
- Lack of "best use" guidelines and controls for the location of power plants, industrial enterprises requiring waterfront locations, recreational service businesses such as marinas, and private residential developments.
- Lack of adequate plans for handling dredge materials, toxic wastes, solid wastes and other potential pollutants.
- Inability of the State and private groups to acquire substantial wildlife, recreational and open space holdings for the public because of insufficient funds.
- Inadequate administrative tools for developmental control through the exercise of police powers, zoning, easements, and other devices.
- Inadequate information about public needs and preferences in the coastal zone now and in the future.

GOALS AND OBJECTIVES:

- To identify all of the State's coastal resources: water, submerged land, air space, fin fish, shellfish, minerals, physiographic features, and others.
- To evaluate the coastal resources in terms of their quality, quantity, capability for use, and other key characteristics.
- To determine the current and potential problems of each resource.
- To formulate plans and programs for the management of each resource, identifying permitted uses, locations and protection measures, and so forth.
- To carry out these resource management programs through implementing authority and coordination.
- To formulate standards where none exist, and to re-evaluate existing standards where necessary.

OVERALL PROGRAM DESIGN:

Resources Inventory: The legislation which established the CRMC requires that an inventory be developed as a basis for planning. Such an inventory is presently in progress, with work shared between the Coastal Resources Center and the Statewide Planning Program. Broadly, there are two major aspects to the inventory--natural features and socio-economic features--which will be developed, containing baseline information, supporting maps, charts, reference materials, and suggested guidelines for management. Much of the materials on natural features has been gathered, and considerable text and map work completed. Subjects to be covered are: marine geology; hydrography; chemical properties; climate; benthos; wildlife; fish and fisheries; shoreline features, land use and land ownership; pollution; recreation; public facilities and utilities; and industrial and commercial activities.

Commercial Fisheries Survey: This task, begun in mid-1972, is to result in a detailed review and analysis of offshore and inshore fishing

techniques, catch statistics, fishing areas, economics and problems of the industry, and recommendations for improvements.

Sand and Gravel Extraction: The Coastal Resources Center recently completed a report on the adequacy of Rhode Island's regulatory framework involving ocean bottom mineral extraction. The lack of an accurate analysis of the effects of dredging on resident organisms was found to be an important gap in the background data needed for the study. To fill this need, a two-year study will be conducted of: (a) the ability of biotic communities to withstand or recover from mineral extraction; and (b) turbidity and sediment effects on primary organisms such as the northern lobster, flounder, scup, and striped bass.

Lease Fees and Environmental Impact Guidelines: Through the first year and into the second, an effort will be made to design effective lease fee arrangements covering all structures and uses of public waters occupied for the exclusive use of a particular segment of the public. The study will include the necessary legal review and recommendations for legislation to assess fees against owners of docks, piers, moorings, etc.

In order to provide improved environmental controls on developmental activities during the program development period, performance standards will be prepared to serve as environmental impact regulatory guidelines.

Socio-Economic Baseline Data: The Coastal Resources Center plans to carry out a detailed data collection and analysis of the socio-economic components of the coastal zone throughout the first year and a half. Special studies are planned of various user components in order to assess needs and interactions and to evolve controls and standards. Particular emphasis will be placed on relating industry, commerce, transportation, port development and residential considerations to recreational patterns and projections.

Salt Marsh Quality: A two-year study will be undertaken to develop a system for rating the quality of the State's salt marshes for use in determining preservation priorities. In addition, guidelines for future management will be developed, based upon a legal study of present regulations, to regulate various activities on lands within and adjacent to the marshes.

Energy Requirements: The final report of an ongoing power plant siting study will be published in early 1974. The study analyzes potential construction sites but does not contain a detailed analysis of the relationship of siting to regional requirements, or the associated problems of the impact on the environment and shoreland use of additional transportation, storage, and other supporting facilities. The necessary studies to fill this need will be undertaken over the two year development period.

Marine Recreation: A two-year work task will be an examination of the coastal zone in relation to its ability to maintain projected recreational demands. Public access will be evaluated in terms of need for coastal fishing, boating, nature study, scenic viewpoints, and public beach and swimming facilities. Marina development, design, and location will receive early attention due to the heavy boating pressures on Narragansett Bay.

Legal Studies: An ongoing task, to continue throughout the two year program, is the assessment of existing management controls and authorities and the development of improved ones. Existing controls will be analyzed according to scope, purpose and enforcement capability; overlaps and conflicts will be identified. The State's police power, zoning and performance standard authorities and other legal controls will then be assessed, and the necessary legal basis for broad management authority developed.

PUBLIC PARTICIPATION:

Rhode Island has developed several mechanisms to ensure public involvement in the planning process. The CRMC is broadly representative in nature, including agency heads, legislators, municipal officials, and private citizens. The State plans to involve the public in decision-making by presenting the draft reports and recommendations developed for each problem area identified in the inventory process to citizens committees, designated by the town councils in the shore communities affected for review and comment. Other methods to be employed include: interviews with user groups; workshop sessions; and meetings and hearings at the community level with civic groups, public officials, local planners, conservation, and the general public.

INTERGOVERNMENTAL COORDINATION:

The CRMC, the primary coastal planning entity, is composed of representatives of the House of Representatives, the State Senate, local government, municipal government, and private citizens. In addition to the 17 voting members, there are numerous non-voting members serving in an advisory capacity. Among the agencies represented are: the U. S. Corps of Engineers, EPA, the Coast Guard, the Public Health Service, the New England River Basins Commission and the New England Regional Commission.

State-level planning activities are carried out by the State Planning Council and Statewide Planning Program working in concert in the executive branch of the State government. The Statewide Planning Program is the central planning agency for the State, and maintains the State Guide Plan. The State Planning Council, composed of 10 department and agency heads and five officials of local government, assists the Statewide Planning Program staff in coordinating the planning and development activities of governmental agencies at all levels.

COASTAL ZONE PLANNING AREA:

The primary study area for planning purposes includes the land within the coastal drainage basin as defined by topography and drainage patterns. The area includes all or part of 26 cities and towns extending across Rhode Island's Atlantic coastline and around Narragansett Bay.

SOUTH CAROLINA

GRANT RECIPIENT: South Carolina Coastal Zone Planning and Management Council

OTHER MAJOR PARTICIPATING AGENCIES: Wildlife and Marine Resources Department; Department of Health and Environmental Control; Water Resources Commission; State Ports Authority; State Development Board; Land Resources Conservation Commission.

DEVELOPMENT PERIOD: 3 years; beginning May 1, 1974

FUNDING: \$198,485 (Federal) \$298,500 (Total)

CURRENT STATUS:

Until recently, State agency activities in South Carolina's coastal zone were characterized by fragmented authorities and overlapping jurisdictions. There are twelve State agencies administering 33 programs involving the coastal zone in one way or another. As development pressures increased, attempts were made to pass legislation to provide for the management of specific coastal resources (dunes, wetlands, etc.). The South Carolina General Assembly indicated, however, that it was not willing to grant broad planning and management powers without a thorough understanding of how effective management would be accomplished. Unfortunately, the data necessary to develop a comprehensive management program either did not exist or was not available in a suitable format.

In order to rectify this situation, Governor West created, by Executive Order in August, 1973, the South Carolina Coastal Zone Planning and Management Council. The Council was instructed to develop and recommend to the General Assembly within three years a planning and management program together with the necessary legislation to implement such a program. The Council is composed of representatives of nine key State agencies and one at-large member representing environmental interests. Core staff is supplied by the Wildlife and Marine Resources Department. A Coastal Zone Advisory Committee was also established, comprised of marine scientists from universities within the State, representatives from each of the three coastal regional councils of government, and four representatives of private interests. Of the 33 State programs identified as affecting the coastal zone, 29 are administered directly by members of the Council or its Advisory Committee.

PROBLEMS AND ISSUES:

- The State lacks mechanisms for identifying priority industries, means for identifying and protecting important industrial sites, and methods for guiding construction to minimize environmental impacts.
- Increased coastal development is creating pressure on existing resource uses, primarily recreation and commercial fishing.

- Domestic and industrial wastewater, air emissions, spoil deposition and the generally unregulated spread of economic development are degrading environmental quality.
- Although the development of tidal wetlands has been brought under some control, the destruction of less publicized natural and cultural areas continues.
- Much resort and urban growth has occurred without consideration of such material hazards as flooding, hurricanes, unsuitable soils and erosion.
- The authority to regulate land and water use, provide required support services, and undertake planning is fragmented severely, particularly at the local level.
- Major controversies have developed around the administration of Federal and State permit systems.

GOALS AND OBJECTIVES:

- To ensure the quality and extent of the coastal environment, while recognizing and accounting for the economic and social needs of coastal residents and the people of the State of South Carolina.
- To prepare a comprehensive, coordinated, and enforceable program for the orderly growth and development of the coastal resources of the State over time.
- To minimize conflicts among coastal activities and users by determining the public's desires, determining the capacity of coastal resources to support these desires, establishing priorities where capacities and uses cannot be matches, and informing the public of expected benefits and costs of particular decisions.
- To identify and reconcile the local, State and national interest in the coastal zone.
- To allocate and clearly define the responsibilities of State, regional, and local governments in planning and management of the State's coastal zone.
- To develop and implement a viable public involvement program.

OVERALL PROGRAM DESIGN:

Program Management, Goals, and Objectives: A program management information system will be established, and the process of incorporating available information will be begun. The interrelationship between the coastal zone management program and South Carolina's land use program will be defined. After interagency coordination and public participation mechanisms are activated, the original coastal zone management goals and objectives will be reviewed, and detailed goals and objectives will be established. Using these, the work program will be reviewed for adequacy. This project is scheduled for completion by the Council in the first year.

Inventory and Allocation of Coastal Resources: This is the critical project in South Carolina's program, and is expected to be reviewed and updated throughout the program development phase. Criteria will be identified for estimating the impacts of land and water uses in the coastal zone. Land and water use conflicts in the coastal zone are to be categorized.

A continuing assessment of the resources of the coastal zone will be initiated. Sites will be identified for non-local facilities. Based upon these work elements, a list of permissible land and water uses will be compiled. After suitable criteria are established, critical areas will be designated and data collected both on critical and non-critical areas. Criteria will be developed for assessing priority uses, and priorities will be assigned for both critical and less-critical land and water uses. The bulk of this work is scheduled for completion by the end of the first year.

Legislative Review: South Carolina and Federal legislation and regulations will be inventoried. The State's existing coastal zone management implementation, regulatory and enforcement powers will be described and analyzed. From this analysis, legislation needs will be identified. This task is scheduled for completion during the second year.

Evaluation of Alternatives and Program Selection: The selected program and alternatives will be formally assessed in terms of 1) environmental impact, 2) socio-economic impact, and 3) implementation costs. Tentative legislative changes will be outlined, and the coastal zone management boundaries finalized. Public and interagency hearings and review of the selected and alternative programs will be conducted. Upon approval of the selected program, the program will be submitted to NOAA for approval. These tasks are scheduled for completion at the end of the second year.

Finalization and Review of Coastal Zone Management Program: In the third year, final changes in the coastal zone management program will be made, and the package of required coastal zone management legislation will be submitted to the General Assembly for action. If the Secretary of Commerce does not approve the management program, planning tasks will be undertaken as necessary to gain approval.

PUBLIC PARTICIPATION:

South Carolina has divided its public participation program into four phases. Study Awareness involves preparing and disseminating a brochure to inform the public, help open lines of communication, and develop a list of contacts. Speeches, slide shows, and media coverage will be initiated. Familiarization tours of the coastal zone and workshops may also be used. In the Program and Issue Clarification Phase, an Issues Panel will be established to obtain public input in the definition of issues at stake. Workshops and small group meetings with representatives of local governments and public interests may be held. During the Alternative Development and Evaluation Phase, brochures will be distributed, and public discussions and workshops will be held to initiate a public dialogue on the evaluation of alternatives. As the program moves into an Adoption and Implementation Phase, a final brochure will be prepared, summarizing and discussing the program alternatives. Another round of familiarization tours will be held. A final public hearing will be held on the proposed means of exerting State control, the designation of priority uses, and the organizational structure to implement the program.

INTERGOVERNMENTAL COORDINATION:

Local government in South Carolina has historically been weak, particularly at the county level. A recent effort is the establishment of regional planning districts to promote planning for groups of contiguous counties with common problems and interests. Coordination with the three regional councils or governments in the coastal zone will be accomplished through the Coastal Advisory Committee, of which the Executive Directors of each planning council are members.

Coordination among State agencies is assured by the fact that every State agency with an important role in the coastal zone is a member of the Coastal Zone Planning and Management Council which sets policy and directs the coastal zone planning efforts. As well, these agencies implement at the State level a majority of the Federal programs affecting the coastal zone.

A Federal Advisory Committee, consisting of representatives of the major Federal agencies affecting the South Carolina coast, will be established. The Committee will offer guidance, assist in Federal-State coordination, and develop a mechanism for drawing upon pertinent Federal data and expertise.

COASTAL ZONE PLANNING BOUNDARIES:

The Council has designated the area encompassed by the three coastal regional planning councils as its coastal zone planning area. This includes the counties of Horry, Georgetown, Williamsburg, Berkeley, Charleston, Dorchester, Colleton, Beaufort, Jasper, and Hampton.

TEXAS

GRANT RECIPIENT: Texas General Land Office

OTHER MAJOR PARTICIPATING AGENCIES: Texas Coastal and Marine Council, Highway Department, Industrial Commission, Parks and Wildlife Department, Water Quality Board

DEVELOPMENT PERIOD: 3 years; beginning June 1, 1974

FUNDING: \$360,000 (Federal) \$551,648 (Total)

CURRENT STATUS:

The Open Beaches Act of 1959, which recognized the historic right of public access to Texas beaches and directed the Attorney General to defend the right, was the first recent Texas coastal zone management activity. In 1961, a four-year study of the State's bays and beaches culminated in the enactment of legislation mandating protection of the public interest in the bays, islands, beaches and submerged lands of the coast. In order to obtain more information about the coastal zone and its processes, the Coastal Resources Management Program (CRMP) was launched through the Governor's office, with financial support from the State legislature. In 1973, CRMP studies and recommendations were made to the legislature, including a report on legal and institutional arrangements, and studies of bay and estuarine management, transportation, economic development, power plant siting and waste management. Legislation enacted in response to the recommendations touched on many areas--research and teaching programs, park development, fish and wildlife management, curtailment of subsidence, sand dune protection, beach management, port and harbor development and public land management--but the common theme is best expressed in the Coastal Public Lands Management Act of 1973, which reiterates the mandate of the 1961 legislation: the State must take the lead in enlightened management of coastal resources for the benefit of all Texans.

PROBLEMS AND ISSUES:

- There is a clear need for coordinated planning to allow appropriate community growth and economic development without sacrificing recreational amenities, environmental values, and commercial enterprises (such as shrimping and tourism) which depend upon these values.
- If present growth patterns continue, the metropolitan areas along the coast (four of which contain 22 per cent of the State's population) will have difficulty providing necessary utilities, social services, transportation and amenities.
- Fresh water is in very short supply in the Texas coastal zone. Heavy water use in the Houston-Galveston area has diminished the aquifer's recharge ability and caused land subsidence of up to eight feet, thereby increasing the threat of hurricane flooding and structural damage.

- Most decisions affecting the coastal zone are made at the local or private level where local interests are protected, frequently at the expense of regional, State, or National interests.
- Development is taking place along the coast without adequate damage, public access to the shore for recreation activities is rapidly diminishing.
- A coordinated and comprehensive mechanism to guide the site selection, design construction, and operation of power plants does not exist. Unnecessary costs, delays, and environmental damage frequently result.
- The CRMP reported that certain coastal uses and activities are under the jurisdiction of 15 to 25 different government entities.

GOALS AND OBJECTIVES:

- To undertake a full and complete evaluation of the coastal and marine resources of Texas.
- To improve public awareness and understanding of the State's activities and potentials related to the coastal zone and the sea.
- To achieve orderly development of the coastal resources on behalf of all the citizens of Texas balanced with protection and conservation of these resources.
- To achieve full understanding of, and to maintain or enhance the quality of the coastal and marine environment.
- To review laws, regulations and management structures for the coastal region in order that improvements can be made in a timely and effective manner.
- To create a new structure in the State offices to provide for comprehensive consideration of the State's interests in the coastal zone.
- To adopt a State program to assist the Texas fishing industry in overcoming current institutional, regulatory and technological barriers.
- To take advantage of existing Texas institutions--educational governmental and industrial--in order to avoid duplication of facilities or efforts and to meet the challenges of coastal zone opportunities with minimum delay.

OVERALL PROGRAM DESIGN:

Phase I - Initial State Planning: This phase is already underway. After the Coastal Zone Management Act became law, Texas passed legislation giving statutory authority to the General Land Office to begin comprehensive coastal zone planning. Funds were appropriated to hire a skeleton staff for long-range planning and management of the State's coastal zone interest and to begin the task of delineating areas of particular concern on the State's four million acres of submerged lands and abutting private lands.

Phase II - Inventory and Hearings: This phase commences upon receiving a Section 305 grant (June 1, 1974), continues through September 30, 1974, and consists of five tasks. First, the existing limits of State coastal zone management authority and the ability of present government structures to deal with identified issues and problems will be analyzed. Second, all existing research, data sources, and planning resources available to the Texas Coastal Zone Planning Group will be identified, inventoried, and evaluated. A third task will be the initial identification of and contact with all local, regional and State interest groups as well as an inventory of their desires, capabilities and availability with respect to the proposed work.

Based on these tasks, public hearings and workshops will be held, coordinated through the five coastal councils of government, the Inter-agency Council on Natural Resources and the Environment, and the Texas Coastal and Marine Council. These meetings will be used to inform the public of coastal problems and past and present planning and management activities to obtain public input on the proposed three-year effort and to provide continuing contact with State, Federal, regional and local groups with coastal zone planning and management responsibilities. The final task will be to begin determination of the permanent coastal zone boundary.

Phase III - Technical Studies: The technical studies will be initiated upon receipt of the initial grant but will be concentrated in the period from October, 1974, when the first round of public hearings are completed, to October, 1975.

Criteria will be established for the determination of developments of Statewide concern in the coastal zone, drawing on the concept of coastal developments of more than local concern. A preliminary determination of developments of Statewide concern will be made through public hearings and the application of these criteria.

The second component will be the assessment of expected demands on coastal resources to fulfill the needs of the expanding coastal population and economic base. Emphasis will be given to resource demands for those developments identified as of Statewide concern. Next, the supply and capability of coastal resources to support the projected needs of coastal developments of Statewide concern.

The fourth component is the process of identifying expected resource demands which can be met at acceptable levels of impact upon coastal environments and present users. Finally, alternative management mechanisms will be explored, and the permanent institutional mechanism for implementing the management program will be designed.

Phase IV - Public Information and Commentary: This phase will last from November 1, 1975 through August 31, 1976. It is intended to inform the public on all phases of the management and planning process to stimulate informed comment and criticism on the program and to create an informed constituency for coastal zone management. Hearings on program elements are scheduled throughout the three-year effort.

Phase V - Legislative Action - The purpose of this phase, which will last from September, 1976 through the 1977 legislative session, is to provide legislative committees and other members with background information on which to base comprehensive coastal zone management legislation. A report to the legislature summarizing the program activities and recommending necessary legislation will be written under the sponsorship and review of the joint committees and will be based on the technical studies and public hearings accomplished in earlier phases.

Phase VI - Final Phase: This phase will commence with the passage of necessary legislation and continue until June 30, 1977. The permanent Coastal Zone Management Program will be organized, the final reporting requirements of the Coastal Zone Management Act will be fulfilled, and the proposal for a program administration grant will be completed and submitted.

PUBLIC PARTICIPATION:

Throughout the coastal zone management development program, public hearings will be conducted and educational programs will be carried out. Public information elements will provide ample opportunities for the public and interested groups to be informed about the program status, history and means of involvement. Phase IV of the overall work program addresses the public participation activities in more detail.

INTERGOVERNMENTAL COORDINATION:

Coordination with other State agencies with coastal zone planning and management responsibilities will be achieved through the existing mechanisms of the A-95 review process and the efforts of the Interagency Council on Natural Resources and the Environment. The Commissioner of the General Land Office will establish a mechanism to serve as the single point of contact for the several Federal agencies with coastal zone planning and management responsibilities. Cooperation with the planning efforts of other States will be achieved through such mechanisms as the Coastal States Organization and the National Governors Conference Task Force on Science and Technology. The coastal councils of government will be involved in several program development activities, including the sponsorship and coordination of public hearings.

COASTAL ZONE PLANNING AREA:

For planning purposes, the coast comprises 26 counties, including all of the counties fronting on salt water and many of the "second tier" and "third tier" counties. This planning area is judged sufficient to allow examination of the major economic and natural systems operative in the coastal zone.

VIRGINIA

GRANT RECIPIENT: Division of State Planning and Community Affairs

OTHER MAJOR PARTICIPATING AGENCIES: Virginia Institute of Marine Sciences

DEVELOPMENT PERIOD: 3 years; beginning August 1, 1974

FUNDING: \$251,044 (Federal) \$376,566 (Total)

CURRENT STATUS:

Responsibility for coastal zone-related programs in Virginia is spread among several State agencies, because the programs have been initiated on an ad hoc basis in response to perceived needs. The most recent State-level entity is the Coastal Zone Advisory Committee, comprised of the directors of eight State agencies with coastal zone interests, which was appointed in January, 1973. These officers constitute an advisory committee for Virginia's coastal zone study effort.

The Virginia Wetlands Law, in effect since July, 1972, makes the modification of tidal wetlands without a permit illegal. The Act defines wetlands as that area of the coastal zone within 1.5 times the tidal range, measured from mean low water, when certain grasses are present. Counties choosing to establish wetlands boards may issue permits. If no board is established, the Virginia Marine Resources Commission (VMRC), in consultation with the Virginia Institute of Marine Science (VIMS), issues and reviews permits.

The Division of State Planning and Community Affairs (DSPCA) has overall State planning responsibilities. A report has been prepared on critical environmental areas. The DSPCA is cooperating with the State Water Control Board (SWCB), in the preparation of water quality management plans and river basin studies. The Local and Regional Planning Section of the Division assists localities in the preparation of local plans and ordinances, and administers the State and Federal funds distributed to planning District Commissions (PDCs) to conduct related planning studies. Control of waste disposal, investigation of pollution incidents, shellfish sanitation regulations and water quality monitoring are additional ongoing State activities related to coastal zone planning and management.

PROBLEMS AND ISSUES:

- Demands for shoreline development of all types, including commercial, industrial, residential and recreational, are increasing, as are the impacts associated with some of these activities, while current methods of controlling such pressures are inadequate.

- Degraded water quality is resulting from the same increasing population and growth pressures.
- There is a lack of adequate controls over the use of coastal zone resources.
- Only fifty miles of Virginia's 3,000 mile shoreline are open to the public, much of it in the Virginia Beach area.
- The Eastern Shore of Virginia, presently rural and relatively isolated, is particularly vulnerable to the landside impacts of offshore harbor and petroleum development.

GOALS AND OBJECTIVES:

- To foster cooperation among all levels of the public and private sectors to preserve the aesthetic and natural resources of Virginia's coastal zone.
- To relate man's activities, public and private, to the utilization of existing natural resources.
- To establish a process that enables decisions to be made so that natural resources are managed to achieve optimum levels of economic and social vitality.
- To progressively improve and maintain the water quality of estuarine rivers, bays and seas.
- To identify and protect groundwater sources and suppliers.
- To preserve, to the maximum extent practicable, the coastal wetlands.
- To improve and maintain commercial and sport marine life.
- To utilize marine resources at or below a level of maximum sustainable yield.
- To identify and manage vital wildlife areas.
- To minimize the irreversible use of non-renewable natural resources.
- To identify and protect the significant aspects of the social heritage of the Commonwealth.
- To enhance public and private recreational opportunities.
- To locate new development in an orderly pattern allowing for efficient utilization of land and water resources.
- To provide efficient mobility within and through the coastal zone.
- To maintain channels for viable marine transport while providing positive solutions to the removal and disposal of dredged spoil.
- To develop an efficient use and environmentally safe means for cargo transfer within major ports.
- To encourage economic growth while safeguarding and maintaining use options to the maximum extent possible.

OVERALL PROGRAM DESIGN:

An Assessment of Public and Private Activities in the Coastal Zone:

The roles and responsibilities of the private, local, multi-county, State and Federal organizations active in the coastal zone will be identified. The DSPCA and the Planning District Commissions (PDCs) will conduct these analyses with the assistance of a private consultant, and the work is scheduled for completion in the second year.

Data Collection and Analysis: In support of the public participation and analysis of public and private action elements, and to substantiate the final goals and objectives, a base of pertinent information will be assembled. VIMS and the DSPCA will share primary responsibility for this effort, towards which most of the Federal grant will be applied. VIMS will compile or develop information related to marine life, oceanic and estuarine water conditions and study areas in the coastal zone. The DSPCA will analyze fast land resources, such as topography, vegetative conditions, soils and minerals, and an assessment of the prevailing socioeconomic conditions in the coastal zone. Specific projects will include a tidal marsh inventory, a series of "shoreline situation reports," mapping activities, and the establishment of an information storage system. The projects are scheduled for completion early in the third year.

Problem Identification: Using the knowledge derived from the preceding elements, the preliminary assessment of problems outlined above will be refined and more carefully delineated. As well, the preliminary goals and objectives will be evaluated and recast as necessary in terms of the new information available. Work will commence on this element at the start of the second year and should be completed early in the third year.

Development of Alternative Strategies: Alternative strategies will be formulated to achieve the stated goals and objectives. This will probably necessitate some ranking of the final goals and objectives, as there will probably be some conflicts. Options will be developed for short-range (3-5 years), mid-term (to ten years) and long-range (to 20 years) plans and policies. Work on this element will begin at the end of the second year.

Recommendations for Action: Based on the various strategies developed, specific recommendations for action will be made to the legislature. These recommendations will be developed and put forth in the third year.

PUBLIC PARTICIPATION:

To create a broad understanding of coastal zone management goals and activities, a coastal zone planning committee will be established to receive local input within the jurisdiction of each planning district in the coastal zone planning area; representation will be based on guidelines established by the DSPCA. Each planning committee will review base data generated for inclusion in the program, articulate existing resource utilization policies and procedures, schedule public meetings, and review and comment upon all material incorporated into the overall program. VIMS and DSPCA staff will be made available to assist these committees. A full-time private consultant will be employed to plan, develop and conduct the various programs designed to introduce coastal zone management to the people of Virginia. Several series of seminars will be held at various locations in Virginia throughout the program, and regional hearings will be held on crucial element of the management program.

INTERGOVERNMENTAL COORDINATION:

The Coastal Zone Advisory Committee, presently comprised of eight State agencies, will be the primary mechanism for State level coordination. It is proposed that membership be expanded to include one representative from each of the 9 PDCs in the coastal zone planning area. This will be the primary means of coordination with the substate units of government. As well, the PDCs will be involved in the Public Participation element of the program. Federal agencies, especially the Department of Defense, control and administer a considerable portion of the lands included in Virginia's coastal zone. All of these lands and the administering agencies will be identified. Contact will be made with the identified agencies, and meetings will be held regularly to keep both parties apprised of the activities and plans of the other.

COASTAL ZONE PLANNING AREA:

For planning purposes, the State's coastal zone will include the following nine planning districts: Northern Virginia, Richmond, Rappahanock, Northern Neck, Middle Peninsula, Crater, Southeastern Virginia, Peninsula, and Accomack-Northampton. It is presently expected that only the tide-water counties and independent cities within these districts will be included within the management area.

VIRGIN ISLANDSGRANT RECIPIENT: Virgin Islands Planning OfficeOTHER MAJOR PARTICIPATING AGENCIES: NoneDEVELOPMENT PERIOD: 2 years; GRANT NOT YET AWARDEDFUNDING: \$90,000 (Federal) \$135,000 (Total) REQUESTEDCURRENT STATUS:

The Organic Act of the Virgin Islands, passed in 1936, gave the newly created Territorial Government the power to control the use of all public and private properties within the Territory of the Virgin Islands, and provided that Federal laws are applicable to the navigable waters of the Virgin Islands. Zoning laws became effective in 1963, but they did not provide for special treatment for the coastal areas, nor was any comprehensive or general development plan or policies adopted. In June, 1970, in response to sharply increasing development pressures, the Virgin Islands Planning Office was created, whose principal function is to prepare a long-range, comprehensive plan for the Virgin Islands. In June, 1971, the Legislature passed the Open Shorelines Act creating an Open Beach Committee to prepare a comprehensive plan for the conservation and development of the shoreline areas. This committee was never formed, however, and its responsibilities have not been carried out. The Act also established a permit system within the Department of Conservation and Cultural Affairs to control land use activities along the Islands' shorelines. Subsequent legislative action gave the same Department the power to regulate filling and development in the coastal waters. The permit system has been established, but in the absence of a plan for the protection and enhancement of the coastal zone resources, the regulatory system continues to deal with developmental proposals on an ad hoc basis.

PROBLEMS AND ISSUES:

- Most of the shoreline areas suitable for recreation are privately owned, with exclusive right of the owners to use the beaches and shorefront. While the Open Shorelines Act declared the beaches and shoreline areas to be public lands, its effectiveness is limited because access is restricted by adjoining privately owned properties.
- Rapid population and economic growth have placed unprecedented pressures on the coastal resources. The areas most desirable for development are very environmentally sensitive to changes of any kind. There is a definite need for a comprehensive approach to resolve land use conflicts, minimize the impacts of development and conserve vital coastal resources.

- The Virgin Islands is faced with a number of legal issues affecting title to and use of submerged lands, dredge and fill regulations, overlapping jurisdictions between Territorial agencies, as well as between the Federal government and the Virgin Islands, and between the Virgin Islands and Denmark. Clarification of the status of these and other claims is essential to preparation and implementation of a shoreline plan.

GOALS AND OBJECTIVES:

- To prepare a coastal zone management program to insure that preservation and development of the land and water resources is consistent with their capabilities.
- To integrate land use planning of inland areas with that of the coastal zone, and to allow greater consideration of the physical relationship and effect of land use activities beyond coastal boundaries.
- To involve private citizens in the decision-making process as it pertains to the formulation of policies for the utilization of coastal resources.
- To recognize the interdependence of the islands and assess the regional impact of major facility development.

OVERALL PROGRAM DESIGN:

Characteristics of the Natural Resources of the Coastal Zone: An inventory will be made of the living and non-living resources of the coastal zone, including a description of functional relationships among natural resources, the tolerance of the resources or resource systems for various uses and an assessment of the physical characteristics of the marine waters and ocean floor. For the coastal lands, climate, topography, geology, hydrology, soils and wildlife information will be gathered and analyzed. The biophysical relationships of the resource systems and their tolerance limits will be described. Scenic and amenity resources will be classified and evaluated. Historical, archeological and other significant sites will be identified. Areas subject to storm flooding, hurricane damage, cliff erosion and sedimentation will be identified as well as areas presently unstable or which would become unstable if altered.

Identification of Major Uses: Major land and water uses within the coastal zone will be inventoried and classified. Acreage and linear distances along the coastline of the significant uses will be calculated. Public access and open space areas will be identified, as well as existing zoning districts. All land areas will be classified and mapped by ownership, acreage and value. The existing land and water use laws and regulations will be inventoried and analyzed in terms of adequacy, conflict and effectiveness in controlling coastal land and water uses. Legislative needs, options and limitations will be determined. Growth trends will be analyzed to determine projected uses and resource demands. Areas of particular or critical concern

will be delineated and carrying capacities determined. Areas suitable for intensive development and those which should be reserved for priority uses or as natural areas will be identified.

Preparation of a Land and Water Use Plan: Goals, objectives and policies which reflect the needs, desires and National and Territorial interests with respect to the conservation and development of coastal zone resources will be established. Based on the resource capability plan, priority uses will be designated, and areas to be reserved for such uses will be delineated. In addition, public access areas and areas requiring protection will be delineated.

Management of the Coastal Resources: Based on the findings of an assessment of the legal basis and adequacy of existing land and water use regulations, recommendations will be made as to the regulations required to control development and acquire land consistent with the policies of the coastal zone plan. An organizational structure to implement the management program in accordance with the Coastal Zone Management Act of 1972 will be recommended.

PUBLIC PARTICIPATION:

The Planning Office will establish direct contact with citizen groups, property owners, special interest groups and government agencies. Public hearings and informal meetings with various segments of the community will be held. Information will be disseminated to the public through the Office of Public Relations and Information. The Planning Office will work directly with the Governor's Citizens Advisory Council. The public will be informed on research finds and will be given an opportunity to respond and react to proposals and to become involved in the decision-making process.

INTERGOVERNMENTAL COORDINATION

As a territory of the United States, the Virgin Islands are governed by a territorial government which does not have any sub-governmental levels. The Planning Office intends to establish liaison with local representatives of the National Park Service, which controls a substantial portion of the coastal zone on the island of St. John. The Planning Office will take advantage of the working relationship which the Government has had with the Department of Interior over a long period of time, and will communicate with other Federal agencies.

COASTAL ZONE PLANNING AREA:

The boundaries of the coastal zone are defined to include the land area and surrounding waters of the offshore islands and cays, all privately owned land within a national park boundary below an elevation of 200 feet, the entire water areas surrounding the main island from mean high water to the established three-mile limit, and the land areas of the main islands which extend inland from mean high tide to an elevation of 200 feet, except where land is relatively flat the boundary will extend 800 feet inland.

WASHINGTON

GRANT RECIPIENT: Washington Department of Ecology

OTHER MAJOR PARTICIPATING AGENCIES: University of Washington Sea Grant Program; Washington Department of Natural Resources

DEVELOPMENT PERIOD: 1 year, beginning May 1, 1974

FUNDING: \$388,820 (Federal) \$583,230 (Total)

CURRENT STATUS:

Washington's Shoreline Management Act of 1971 is the primary vehicle by which the State Department of Ecology coordinates the State's coastal zone management efforts. It is the stated intent of the Department to implement to the greatest extent possible Washington's coastal zone program through the existing framework developed pursuant to passage of this Act.

The Shoreline Management Act covers the marine waters of the State as well as the major lakes and streams. Jurisdiction extends to the shoreland within 200 feet in a horizontal plane of the ordinary high water mark, except along the Pacific coastline (considered shoreline of statewide significance) where the boundary is the permanent line of vegetation.

The Act establishes a cooperative program between the Department of Ecology and local governments. Local governments have been given the primary responsibility for administering the regulatory program with authorization to issue or deny development permits within their areas of jurisdiction (subject to appellate review by the Department of Ecology). In addition to the permit process, "Master Programs," comprehensive shorelines use plans developed by the local units under the Department's guidelines, have been submitted to the Department for review. The Master Programs represent goals and policies for dealing with the coastal resources identified through comprehensive shoreline inventories required to be performed by the local units by the legislation. Development of each Master Program requires specification of Natural, Conservancy, Rural, and Urban "Environments" in the shoreland areas and development of use regulations for these designated Environments.

The permit program has been in effect for approximately three years and is expected, after refinement during the next year, to provide the primary basis for the administrative phase of the coastal zone management program.

PROBLEMS AND ISSUES:

- Increasing developmental and single-use pressures are threatening the ecologically valuable and fragile natural shorelands of the State.
- Much of the shoreline and adjacent uplands are privately owned with additional construction unregulated.

- Increasing pressures from competing users are hampering efforts to meet long-term recreational needs and key-habitat preservation objectives.
- Involvement of a diverse and uncoordinated group of State and local agencies in the coastal planning and management process is impeding evaluation and protection of areas of statewide concern.
- Public access to even publicly owned portions of the coastal area is severely limited, and recreational facilities are inadequate to meet future demands.
- Development and unrestricted use of the Puget Sound area is threatening the ecologic integrity and future availability of its unique resources.

GOALS AND OBJECTIVES:

- To develop a coordinated planning mechanism to protect the public interest in the State's shoreland while, at the same time, recognizing and protecting private property rights.
- To provide for development and management of the coastal area by planning for and fostering reasonable and appropriate uses, while preserving the natural character of the shoreline to the greatest possible extent.
- To recognize and protect the statewide interest over local interest.
- To develop management criteria for resource allocation which will result in long-term over short-term benefit.
- To provide for preservation and protection of estuaries and key habitat areas, and to provide for improvement of water quality.
- To increase public access to publicly owned portions of the shoreline.
- To acquire and develop water oriented parks and recreational facilities.
- To ensure public input and access to the planning and policy-making process to the fullest possible extent.

OVERALL PROGRAM DESIGN:

A. Collection and Compilation of Base Data

Base Mapping and Purchase of Remote Imagery: A three to four month task that has been identified for early funding is the preparation of two sets of base maps from existing sources. One set of maps will be of the entire marine coastline at an intermediate scale--the other at large scale for more detailed study of critical areas. In addition, purchase of a complete set of high altitude infrared imagery for the entire coastal area is planned.

Inventory and Designation of Areas of Particular Concern: The Department plans an inventory (from existing data sources) of general geographical areas of critical environmental concern. Once conducted, the inventory will be converted to a computerized format; utilizing predefined criteria, certain areas will be designated for detailed inventory and analysis carrying into the second fiscal year.

B. Supporting Studies and Analyses:

Determination of a Coastal Boundary: Analysis is planned of the natural, political and legal considerations involved in delineating the landward extent

of Washington's coastal zone. It is expected that the zone used for the regulatory phase of the program will be based largely on natural features, unlike the zone based on political jurisdictional boundaries used for planning.

Currents and Patterns of Accretion and Erosion: Data will be gathered from remote imagery studies as well as historical records and limited field studies for an initial analysis and continuous monitoring of the changing shoreline configuration.

Biophysical Capability: A study will be made to assess the ability of various shoreland areas to accommodate various forms of development. Detailed analysis will be made of natural ecosystems found to be intolerant of any development, including areas of particular biological productivity.

Mineral Extraction: A study and analysis is planned during the program development year of current locations and methods of commercial sand and gravel extraction, with recommendations made for regulation of future operations.

Salt Marshes and Estuaries: A study is planned of the significant marshes and estuaries of the State, with analysis to be made of the nature and intensity of biological activity of each system and an evaluation of the contribution of the system to the associated water body and shoreland. A scheme for a statewide ranking of the systems is to be developed along with guidelines for their preservation. This study is expected to continue into the second fiscal year of the program.

Survey of Endangered Species: A study of the locational patterns and population size of selected coastal wildlife species is planned as a foundation for their preservation.

Development of Permissible Use Indices: A year-long analysis of permissible land and water uses impacting on coastal waters is planned. Specific guidelines and regulations will be drawn from a detailed investigation of the nature and causes of conflicts of specific uses and classes of uses.

Marine Resources in Puget Sound, Grays Harbor, Willapa Bay and the Columbia River Estuary: An assessment is to be made of current aquaculture capabilities in conjunction with a study of future requirements for aquaculture development. The study will define key areas for future aquaculture development and develop criteria for protection of these areas until the aquaculture process can be initiated.

Program Evaluation and Impact: A quantitative study of the impact of the first two years of the State program developed under the Washington Shoreline Management Act is to be initiated. Identification of inadequacies in administration or design and a "testing" of the impact of various management policies are to be major tasks.

PUBLIC PARTICIPATION:

The Washington public has been extensively involved in the CZM process to date. The State guidelines for development of Master Programs urged local units to appoint broadly representative citizen advisory committees to define goals and assist in drafting policy statements. In addition, a series of public meetings and at least one public hearing were required for the development of each Program.

To supplement these efforts, an intensive public information program and design of a public participation process to involved concerned citizens throughout Washington's coastal zone management program has been scheduled an early program development task.

INTERGOVERNMENTAL COORDINATION:

As previously noted, local jurisdictions have the legislative mandate to carry out coastal zone regulatory programs with the Department of Ecology responsible for coordination, guidance and review.

The Puget Sound Governmental Conference will coordinate coastal planning on a regional level in the Central Puget Sound Region, providing a cohesive plan for the region viewed as a whole in conjunction with individual county planning efforts.

COASTAL ZONE PLANNING AREA:

The landward area of Washington's coastal zone has been delineated through the Shoreline Management Act. The area included is that within 200 feet (measured on a horizontal plane) of the mean high tide line but including all marshes, bogs, swamps, estuaries, floodplains and associated wetlands and streams of 20 cubic feet per second or more. One task to be accomplished during the year devoted to program development will be to reexamine the existing designation for adequacy.

WISCONSIN

GRANT RECIPIENT: Department of Administration

OTHER MAJOR PARTICIPATING AGENCIES: Department of Natural Resources; University of Wisconsin; Northwestern Wisconsin RP&DC; Bay Lake RPC; Southeastern Wisconsin RPC

DEVELOPMENT PERIOD: 3 years; beginning June 1, 1974

FUNDING: \$208,000 (Federal) \$353,215 (Total)

CURRENT STATUS:

Wisconsin conducts a variety of land and water planning and management programs in the coastal zone. The Department of Administration's State Planning Office is administering the State Development Policy Program, the Critical Resource Information Program, and the Land Resource Analysis Program. The Office is developing a land use information system and has responsibility for the OMB A-95 and the Federal and State mandated EIS reviews.

The Department of Natural Resources has responsibility for water resources planning including the preparation of the State Water Plan pursuant to the State Water Resources Act of 1965 and water quality management planning pursuant to the Federal Amendments of 1972, P.L. 92-500. The DNR is also conducting activities in the areas of flood plain management, shoreland zoning, the regulation of navigable water, and surface water classification. Related programs administered by DNR are outdoor recreation planning, scientific areas preservation, fish management, air pollution control, solid waste management and environmental impact assessment.

Other State activities affecting the coastal zone include the regulating of power generating facilities by the Wisconsin Public Service Commission, highway, waterport and urban transportation system planning by the Department of Transportation, and coastal zone related research and education programs carried on by the Sea Grant College Program, the Institute for Environmental Studies and the Center for Great Lakes Studies, all of the University of Wisconsin System.

PROBLEMS AND ISSUES:

- The highly erodible nature of the shoreline is a major problem in managing the coastal zone.
- The amount of shoreland in public ownership does not provide adequate public access to the Lakes.
- Tourism and recreational needs are increasing the demand for land and for support services.
- The need for economic development must be balanced against irrevocable commitments of natural resources, particularly along the Lake Superior shoreline.

- Residential and other development is encroaching upon ecologically sensitive areas.
- In some areas, obsolete structures, inadequate transportation patterns, and natural hazards have caused the waterfront to deteriorate.
- Certain shorelands are subject to periodic flooding and damage.
- The size and composition of the catch can no longer support the commercial fishing industry as in earlier years.
- Great Lakes ports are losing their competitive position and several may be forced to close.

GOALS AND OBJECTIVES:

In managing the coastal zone, Wisconsin will seek:

- To revitalize the natural features of the area.
- To systematically guide, through multi-governmental cooperation, shoreline uses to those which are (1) resource dependent, and (2) compatible with natural shoreline processes.
- To provide a better balance between ecological, aesthetic and economic concerns.

OVERALL PROGRAM DESIGN:

Resource Inventory: An initial task to be performed is an assessment and evaluation of existing data sources and the development of a format for data retrieval. Wisconsin plans to develop a reporting system to monitor changes in the coastal area in such a manner as to allow timely reaction by management agencies. The monitored changes might include: zoning, subdividing, platting and building permit applications.

Development of a set of base maps and a series of inventories of: land use ownership and zoning patterns; vegetative cover; fish and wildlife habitats; wetlands; and point sources of pollution are planned. A mosaic and data overlay analysis based on these maps and inventories will serve as a foundation for physical management.

Areas of Critical Concern: A second task will be an inventory and identification of areas of particular concern in the coastal zone. Efforts are already underway to inventory historic sites in coastal counties and to identify critical ecosystems in the coastal area. Public review of the designated areas is expected to be part of the second year of the development program.

Resource Classification and Regulation: An assessment of the dependency of the coastal population upon the land-water interface will be carried out in conjunction with a classification of shore-types and use capabilities. These studies represent an effort to identify the dependency of the local economy on the coastal shoreland area. Public perceptions of permissible shore uses will be identified from meetings with public agencies and interest groups. The public input will be used in addition to the assessment studies to develop guidelines for local governments to evaluate proposed shore uses according to inherent land capabilities and economic considerations.

Management Policy: Analyses of alternative future and courses of action in relation to several specific coastal issues are planned. The analyses are to be made in an effort to provide the regional planning commissions and the Regional Coastal Zone Coordinating and Advisory Councils with a basis for formulating management policy. Reports to be included are: alternative futures for Great Lakes ports and transportation systems; future roles of the Wisconsin coastal area in the siting of onshore and offshore energy facilities; recreational pressures on coastal resources and their primary and secondary side effects; projected rates of shoreline recession and the usefulness of alternative man-made protective structures; and available methods for increasing public access to the Wisconsin Great Lakes shoreline.

Proposed Institutional Arrangements and Legislation: Early consideration will be given to alternative means to exert control over land and water uses. The University of Wisconsin-Madison Law School is scheduled to assess and analyze the effectiveness of legislative, executive and administrative powers at various governmental levels for regulatory control of land and water use. Legislative interaction will begin as soon as feasible to provide a broad basis for new means of water and land use control.

Analysis is also planned for improvements in intergovernmental and interagency coordination. Included will be consideration of designation of a single unit to coordinate planning and management with neighboring states and the Federal Government.

Drawing on the preceding legal, institutional and resource analyses, the comprehensive management program, together with a package of necessary legislative actions, will be prepared and submitted to the State legislature in time for the January, 1977, Legislative Session.

PUBLIC PARTICIPATION:

Wisconsin is placing heavy emphasis on public participation. Public participation activities managed by the University of Wisconsin's Extension, the Critical Research Information Program, and the Institute for Environmental Studies Lake Superior Project may be integrated with coastal zone public information efforts. The State's first year program concentrates on obtaining public perceptions of areas of particular concern, permissible uses, planning and management zone boundaries, and controls over land and water uses.

Citizens, local representatives, regional planning commissions, and State agencies on the State and Regional Coastal Zone Coordinating and Advisory Councils will establish interim statewide and regional variations of policies and goals. The State Coastal Zone Coordinating and Advisory Council will be the prime vehicle for determining program direction. A parallel Citizens Advisory Committee, appointed by the Governor upon the recommendation of the Council, will afford the opportunity for professional groups, special interest groups and knowledgeable citizens to participate in the direction setting of the program.

INTERGOVERNMENTAL COORDINATION:

The State-level Coastal Zone Coordinating and Advisory Council will coordinate State and regional/local interests in the coastal zone. Participants in the Council, to be established by the Governor, will include: (1) all State agencies with coastal-related program responsibilities; (2) Regional Commission chairmen and other regional/local governmental representatives; and (3) the University of Wisconsin system.

At the substate level, regional planning commissions will be grant recipients for comprehensive planning in coastal areas and for regionally specified studies. They will provide leadership in the coordination of public participation, as well as the development of physical inventories and plans to aid in the decision-making process. While each regional planning commission will structure its advisory committee as appropriate to its region, such advisory committees must adequately represent citizens and the coastal counties, cities, villages and towns.

Local decision-makers, who are the zoning and development regulators, will have a strong voice during the preliminary development of a coastal management program through membership on the Regional Planning Commissions and the Regional Coastal Zone Coordinating and Advisory Councils. Local units of government can also be grant recipients through regional commissions for specified coastal projects.

All states adjacent to Wisconsin and bordering the Great Lakes as well as those Federal agencies with ongoing programs in the Great Lakes area are members of the Great Lakes Basin Commission. This membership on an equal partner basis makes it feasible to use the Great Lakes Basin Commission as the coordinating agency between the various states and the various Federal agencies to implement and coordinate Wisconsin's coastal zone management development program with those agencies.

COASTAL ZONE PLANNING AREA:

The planning area is composed of the 15 counties adjoining Lakes Michigan and Superior. In addition to providing a consistent political boundary, this relatively deep planning area will provide sufficient area to analyze the impact of land uses on the coastal waters and, if necessary, provide alternative management zones, particularly in those cases where a standard land setback zone from the water will not be adequate to encompass the boundaries of certain critical resource areas.

The shoreland management boundaries provide a feasible management area, including those unincorporated lands within 1,000 feet of the ordinary high watermark of navigable lakes, including the Great Lakes. Further, Section 87.30 of the Wisconsin Statutes requires that counties, cities and villages regulate the floodplains of streams including those tributary to the Great Lakes. Jointly, these two statutes provide a possible zone where State and local authority may be imposed on land use. However, experience with these statutes and the proposed management needs in the coastal zone indicate potential modification of this zone.

April 23, 1975

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Status of Grant Awards, Office of Coastal Zone Management
(including amendments approved through April 23, 1975)

FY 1974

Section 305

| Grant Number | State or Territory | Date Awarded | FY 1974 | | Matching Share | Total Program | Grant Period |
|----------------|--------------------|--------------|---------------|-------------|----------------|---------------|-------------------|
| | | | Federal Share | Total | | | |
| 04-4-158-50001 | Rhode Island | 3/13/74 | \$154,415 | \$236,270 | \$81,855 | \$236,270 | 3/1/74-6/29/75 1/ |
| 04-4-158-50002 | Maine | 3/13/74 | \$230,000 | \$345,000 | \$115,000 | \$345,000 | 3/1/74-2/28/75 |
| 04-4-158-50003 | Oregon | 3/13/74 | \$250,132 | \$391,346 | \$141,214 | \$391,346 | 3/1/74-12/31/74 |
| 04-4-158-50004 | Michigan | 4/23/74 | \$330,486 | \$495,729 | \$165,243 | \$495,729 | 6/30/74-6/29/75 |
| 04-4-158-50005 | California | 4/23/74 | \$720,000 | \$1,091,946 | \$371,946 | \$1,091,946 | 4/1/74-12/31/74 |
| 04-4-158-50006 | Mississippi | 4/23/74 | \$101,564 | \$152,346 | \$50,782 | \$152,346 | 5/1/74-6/29/75 |
| 04-4-158-50007 | South Carolina | 5/10/74 | \$198,485 | \$298,500 | \$100,015 | \$298,500 | 5/1/74-4/30/75 |
| 04-4-158-50008 | Maryland | 5/10/74 | \$280,000 | \$465,765 | \$185,765 | \$465,765 | 6/30/74-6/29/75 |
| 04-4-158-50009 | Washington | 5/14/74 | \$388,820 | \$549,003 | \$194,410 | \$549,003 | 5/1/74-6/30/75 |
| 04-4-158-50010 | Texas | 5/16/74 | \$360,000 | \$549,003 | \$189,003 | \$549,003 | 6/1/74-5/31/75 |
| 04-4-158-50011 | Ohio | 5/21/74 | \$200,000 | \$366,300 | \$166,300 | \$366,300 | 5/15/74-6/30/75 |
| 04-4-158-50012 | Massachusetts | 6/4/74 | \$210,000 | \$315,000 | \$105,000 | \$315,000 | 5/1/74-4/30/75 |
| 04-4-158-50013 | Connecticut | 6/5/74 | \$194,285 | \$324,644 | \$130,359 | \$324,644 | 6/30/74-6/29/75 |
| 04-4-158-50014 | New Hampshire | 6/7/74 | \$78,000 | \$99,000 | \$39,000 | \$99,000 | 6/30/74-6/29/75 |
| 04-4-158-50015 | Hawaii | 6/10/74 | \$250,000 | \$375,000 | \$125,000 | \$375,000 | 6/30/74-6/29/75 |
| 04-4-158-50016 | Georgia | 6/13/74 | \$188,000 | \$303,400 | \$115,400 | \$303,400 | 6/30/74-6/29/75 |
| 04-4-158-50017 | Delaware | 6/14/74 | \$166,666 | \$250,000 | \$83,334 | \$250,000 | 6/30/74-6/29/75 |
| 04-4-158-50018 | Florida | 6/14/74 | \$450,000 | \$735,853 | \$285,853 | \$735,853 | 6/30/74-9/30/75 |
| 04-4-158-50019 | Wisconsin | 6/20/74 | \$208,000 | \$353,215 | \$145,215 | \$353,215 | 6/1/74-5/31/75 |
| 04-4-158-50020 | Alabama | 6/20/74 | \$100,000 | \$150,000 | \$50,000 | \$150,000 | 6/30/74-6/29/75 |
| 04-4-158-50021 | Pennsylvania | 6/20/74 | \$150,000 | \$225,000 | \$75,000 | \$225,000 | 6/1/74-6/29/75 |
| 04-4-158-50022 | North Carolina | 6/21/74 | \$300,000 | \$500,000 | \$200,000 | \$500,000 | 6/30/74-6/29/75 |
| 04-4-158-50023 | Minnesota | 6/21/74 | \$99,500 | \$149,250 | \$49,750 | \$149,250 | 6/1/74-6/29/75 |
| 04-4-158-50024 | Illinois | 6/24/74 | \$206,000 | \$309,000 | \$103,000 | \$309,000 | 6/30/74-6/29/75 |
| 04-4-158-50025 | Louisiana | 6/26/74 | \$260,000 | \$394,090 | \$134,090 | \$394,090 | 6/30/74-6/29/75 |
| 04-4-158-50026 | Puerto Rico | 6/26/74 | \$250,000 | \$375,000 | \$125,000 | \$375,000 | 6/30/74-6/29/75 |
| 04-4-158-50027 | Alaska | 6/26/74 | \$600,000 | \$900,000 | \$300,000 | \$900,000 | 5/15/74-5/14/75 |
| 04-4-158-50028 | New Jersey | 6/27/74 | \$275,000 | \$412,500 | \$137,500 | \$412,500 | 6/30/74-6/29/75 |

Status of Grant Awards (Cont'd.)

| Section 312 Grant Number | State or Territory | Date Awarded | FY 1974 | | Matching Share | Total Program | Grant Period |
|-----------------------------|--------------------|-----------------|------------------|--|-------------------|------------------|------------------|
| | | | Federal Share | | | | |
| 04-4-158-12001 | Oregon | 6/27/74 | \$823,965 | | \$823,965 | \$1,647,930 | 6/30/74-6/29/75 |
| Section 305 | | | | | | | |
| FY 1975 | | | | | | | |
| 04-5-158-50001 | Virginia | 8/14/74 | \$251,044 | | \$125,522 | \$376,566 | 8/1/74-7/31/75 |
| 04-5-158-50002 | New York | 11/8/74 | \$550,000 | | \$275,000 | \$825,000 | 11/1/74-10/31/75 |
| 04-5-158-50003 | Virgin Islands | 11/26/74 | \$90,000 | | \$45,000 | \$135,000 | 12/1/74-11/30/75 |
| 04-5-158-50004 | Oregon | 2/11/75 | \$158,811 | | \$79,406 | \$238,217 | 1/1/75-6/30/75 |
| 04-5-158-50005 | Maine | 3/26/75 | \$328,870 | | \$164,435 | \$493,305 | 3/1/75-2/29/76 |
| 04-5-158-50006 | Guam | 3/27/75 | \$143,000 | | \$71,500 | \$214,500 | 4/1/75-3/31/76 |
| 04-5-158-50007 | California | 4/8/75 | \$900,000 | | \$450,000 | \$1,350,000 | 1/1/75-12/31/75 |

1/ Grantee acceptance of grant amendment not yet received by OCZM.

2/ Grantee acceptance of grant not yet received by OCZM.

3/ Second grant.

POLICY POSITION ON OUTER CONTINENTAL SHELF ENERGY RESOURCES

Adopted by the
NATIONAL GOVERNORS' CONFERENCE
 Mid-Winter Meeting, Washington, D. C.
 February 20, 1975 .

3

1. Proposals for the development of outer continental shelf energy resources must be an integral part and be reviewed in light of a comprehensive, balanced energy policy. The energy policy developed should reflect not merely the proposed uses for offshore oil and gas, but also a consideration of whether such offshore development is necessary in light of prudent conservation measures and alternative sources of energy. The nation's energy policy that finally emerges should be truly national in scope and developed and implemented in partnership with the States. Full and early opportunity for public review and comment should be afforded as new policies are formulated or when changes to existing policy are proposed.
2. The continental shelf is a great public natural resource which should be managed with scrupulous care to insure the long-term productivity of all its resources and a fair economic rate of return to the public.
3. The Governors believe it is in the public interest to promptly explore the OCS to determine the extent of energy resources that exist. However, the exploration program of an OCS tract must be separated from the decision to develop and commercially produce that tract. Therefore, the proposed Department of Interior leasing schedule should be revised to reflect and insure the requirements of equity and efficiency. Specifically, the government should establish, in cooperation with the States, a phased and measurable production objective for offshore oil and gas. This objective should reflect the role of OCS oil and gas in import substitution and its relation to other sources (including production from naval reserves, existing OCS leases, and onshore production).

On the basis of a phased production objective, a revised leasing schedule should be established which would take into account objective environmental rankings, hydrocarbon prospects, regional energy needs and economic impacts, transportation and refinery linkages, costs and productivity of development, material, manpower and capital constraints.

Prior to initiation of OCS production on any OCS tract, the full requirements of the National Environmental Protection Act should be strictly observed.

4. An OCS program must include an evaluation of sometimes conflicting national goals and assumes that in some instances for areas of exceptional non-petroleum resource value, no petroleum producing activities should be permitted if the production will seriously jeopardize those other resources. The Governors believe that it is in the public interest that such total restrictions be imposed in appropriate cases.

5. Development, production, transportation and onshore facility plans should be submitted for approval to the Department of the Interior, but only after the potentially impacted coastal States have reviewed such plans in order to ensure consistency with state coastal zone management plans and other applicable state statutes and regulations. Since the plans should be reviewed for consistency with State coastal zone management programs, the Governors believe that adequate time, as determined by Congress, should be afforded states to develop such coastal zone programs before any OCS production commences.
6. Present leasing procedures should be changed to assure an equitable return to the public and efficient management and development of OCS resources. The Governors recognize that no single leasing method is ideal. However, the present cash bonus bidding plus low fixed royalty system does not adequately balance the need for a fair return to the public with the need to provide industry with reasonable incentives to explore and develop our OCS resources.
7. The Governors further believe that the following administrative or legislative reforms should [ALSO] be implemented:
 - a) An effective insitutional mechanism must be established to ensure an ongoing working relationship with the potentially affected state governments. Through this mechanism, the States should have timely access to data necessary for planning to avoid or minimize adverse impacts and chaotic development and have the further opportunity to participate fully in both technical and policy decisions affecting the program.
 - b) The States should participate in the decision to permit production of and OCS tract and should also share responsibility for review of the adequacy and implementation of environmental safeguards and OCS regulations.
 - c) The Governors will endeavor to coordinate the participation of the various state agencies in this process, with a view to improving the overall efficiency of resource management decision making. Federal funding is required for onshore planning and impact mitigation. With such federal assistance, the States must dedicate sufficient personnel to expansion of their planning and regulatory capabilities with respect to economic, environmental, land use and energy planning aspects of coastal zone management.
8. The Governors believe that any OCS program will have substantial financial impact on affected states. Anticipated onshore development will require States to plan for and eventually finance public facilities to cope with the impact of that development. Since the OCS program is a national one, we believe there is a clear federal responsibility to assume the necessary related costs of that development. Adequate federal funds should be made available now to States to enable them to stay ahead of the program and plan for onshore impact. Once the program commences, provision should be made for federal assistance such as the application of federal royalty revenues to affected coastal and adjacent States in compensation for any net adverse budgetary impacts and for the costs of fulfilling State responsibilities in the regulation of off and onshore development.

9. A major oil spill or blowout can have devastating effects on the coastlines and the economies of the coastal states. Fairness dictates that the oil industry should be strictly liable for all cleanup and consequential damages flowing from a spill and that this liability be unlimited. If the federal government posits that it is in the national interest to limit the liability of those who cause the spills, then the full risk should be shared on a national level with insurance to cover the difference between what the oil company pays and what the State is forced to absorb.

Summary of Key Points

1. OCS is a national resource.
2. Prompt exploration of OCS is in the public interest.
3. Exploration of OCS areas should be separated from the decision to produce from individual OCS tracts for oil and gas.
4. A phased production objective should be established relating OCS resources to import substitution, other oil and gas sources, and demand reduction measures.
5. A new leasing schedule should be developed, taking into consideration these production objectives as well as environmental ranking, regional energy needs and economic impacts, transportation and refinery linkages, and material, manpower and capital constraints.
6. New leasing procedures should be adopted to ensure an equitable return to the public as well as efficient development and management of OCS resources.
7. Administrative or legislative reforms should be introduced to provide for a more effective state role in resource management, and more timely availability of necessary data for state planning needs.
8. Federal funding is needed to assist the coastal States in coping with planning needs and adverse impacts of OCS development.
9. Strict liability and no-fault compensation measures are essential.
10. The States should increase their efforts and participation in resource management decision making and regulations.

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Resolution 1 adopted by Coastal Zone Management Advisory Committee

~~main points:~~

- (1) OCZM should attempt to deal with energy facility siting in the OCS problem within the context of comprehensive czm programs. Energy facility siting should not be dealt with separately.
- (2) OCZM should continue to work on the concept of the separation of development from exploration through the requirement of a specific federal approval of a development plan with strong state involvement.
- (3) We should work to strengthen Federal consistency in the CZMA with regard to OCS and energy-related matters if that is shown through legal analysis to be necessary.
(assistance to the states to offset onshore impacts)
- (4) Some form of ~~state sharing of OCS revenues~~ is not only fair but essential to provide the means for a czm program and we should work towards that end.

Resolution 2 adopted by Coastal Zone
Management Advisory Committee

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RESOLUTION

BE IT RESOLVED, by the Advisory Committee for Coastal Zone Management, that in its judgment, the national interest and national security make it urgently necessary for the nation to proceed forthwith toward an effective program to secure additional volumes of oil and gas from territorial sources; and that the Outer Continental Shelf areas of the United States appear to be a promising area for such needed domestic production and should be explored, developed, and made productive with all deliberate speed in accordance with sound environmental practices.

RESOLVED FURTHER, that this Committee respectfully transmit this recommendation to the Secretary of Commerce and to other interested Federal and State authorities as he may deem appropriate to have notice thereof.