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Alternative Federal Outer Continental Shelf Oil and Gas Leasing Procedures: Lessons from Programs in Alabama and Texas

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ALTERNATIVE FEDERAL OUTER CONTINENTAL SHELF
OIL AND GAS LEASING PROCEDURES:
LESSONS FROM PROGRAMS IN ALABAMA AND TEXAS

BY

CHRISTOPHER WATSON LYNCH

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
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ALTERNATIVE OCS LEASING PROCEDURES
ABSTRACT

This study is a comparative analysis of the offshore oil and gas leasing programs of Alabama, Texas, and the Federal government. It focuses upon the legal and political, rather than resource, technological, or economic, problems that have left the Federal program with a record of unmet expectations and growing frustration.

The long history of turmoil that has embroiled the Federal leasing program since the 1969 Santa Barbara oil spill and Arab oil crises is reviewed. The leasing and regulatory programs of Alabama, Texas, and the Federal government are outlined. Alternatives to current Federal procedures, reflecting State practices, are considered, including the environmental coding system, and regular, semi-annual lease sale schedule in Texas, and strict, zero-discharge environmental regulations, and high royalty rates and taxes in Alabama.

The common attributes of any offshore oil and gas leasing program are discussed. Special emphasis is given to varying methods for distributing exploration and development rights; each program's ability to capture the economic returns on rights and resources; and the utilization of regulatory authority. The legal authority over the submerged lands and resources for each jurisdiction is also established.
Finally, five recommendations are made that would serve to lessen the conflicts that currently frustrate the Federal offshore leasing and regulatory program.

(1) A resource management code system similar to that utilized in Texas should be implemented as a framework for assessing the vast lands under Federal jurisdiction.

(2) Further consideration should be given to stricter offshore environmental regulation by the Federal government as a means for minimizing environmental impacts.

(3) The Federal government should increase royalty rates on offshore production significantly, allowing for increased returns on public resources and less pressure to maintain high leasing rates.

(4) Competition for Federal offshore leases should be increased to better assure high returns on public resources.

(5) The Federal lease sale preparation process should be adjusted to allow for industry input as to specific areas of interest at a point closer to the actual sale date, allowing more operators to participate in the process.
ACKNOWLEDGEMENT

While completion of a masters thesis must be a long, lonely project, I owe a great debt to a number of people who "nudged and prodded" me to this end.

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and I raced against August flights to the West Coast and Alaska writing around the clock for almost six weeks in a "thesis completion frenzy". And then things got crazy.

Good luck, Jim.
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CHAPTER I
INTRODUCTION

Hidden below our coastal waters, this nation's continental shelf holds resources of inestimable wealth. Wide variations in the reports and speculations of "experts" clarify how little is actually known of these buried riches. Oil and gas resources, though only a small part of the potential, are of the greatest immediate value and have been the focus of offshore activity and controversy in recent years.

The United States (U.S.) government, trustee of the outer continental shelf (OCS--those submerged continental lands beyond the seaward limits of State jurisdiction), has leased approximately thirty-seven million acres for oil and gas development since 1953; on these tracts some twenty-two thousand wells have been drilled, yielding more than six billion barrels of oil and sixty-two trillion cubic feet of natural gas.¹/ Much exploration and development has taken place, however the potential is still debated. Industry estimates that the OCS may contain sixty percent of the nation's undiscovered oil and gas resources; the Minerals Management Service (MMS), in contrast, indicates that 21 to 41 percent of all domestic undiscovered oil and 25 to 30 percent of undiscovered natural gas resources are held within our Federal maritime jurisdiction.²/ Further
research is necessary to determine the most basic facts; as stated by former Secretary of the Interior James Watt: "We may have . . . only scratched the surface of the vast energy potential that lies beneath the waters of our outer continental shelf." 3/

Currently, the worldwide oversupply of hydrocarbons has granted a reprieve from rapidly increasing prices and limited availability of oil and gas resources, but this is only an aberration in a most dangerous long-term trend. Energy problems facing the United States remain critical a decade after the Organization of Petroleum Exporting Country's (OPEC) first grave warning:

- In the past thirty years, the U.S. has gone from importing seven percent of domestic oil needs to importing fifty percent.
- In 1978, imports were greatly responsible for a $33.8 billion balance of trade deficit and the imbalance has only grown since.
- Since 1970 domestic oil production has declined steadily; from 1970-80 OCS oil production decreased thirty-four percent. 4/
- In 1984 total domestic energy demand rose seven percent over 1983, while recent reports agree that domestic oil and gas production will continue to decline at least through the year 2000. 5/

Figures such as these put into question America's future
as a strong, independent military and economic world leader. Facts make apparent our inability to deal effectively with this looming disaster. Since President Nixon inaugurated "Project Independence" in response to the original OPEC action, every President has called upon the nation to conserve and offered a new plan for increased domestic production. The national goal over the past decade has been, as President Carter promised, "... energy security in the years ahead."6/ Yet a 1979 Central Intelligence Agency assessment warns of oil imports supplying nearly seventy-five percent of domestic consumption by 1990, and little since 1979 would seem to put this estimate into question.7/ Significant declines in domestic production are expected in the next few years as production at the Prudhoe Bay field, which currently supplies nearly twenty percent of the nation's domestic oil, peaks and initially begins to decrease by approximately fifteen percent per year.8/ The oil and gas of the OCS represents the "last major frontier" for domestic production of this vital energy resource and has been at the center of each Administration's plans for increased domestic development. As of January 1984, less than two percent of the Exclusive Economic Zone (EEZ) off Alaska and the continental U.S. had been leased for energy exploitation however, and production on the OCS, though supplying nine percent of our domestic oil, has declined by more than a third since the 1978 Arab oil
There are grave discontinuities between recent policies and facts. In trying to assess the ongoing problems in the program, the conflicts between Federal agencies, laws whose purposes are opposed, legal and political battles between Federal and State governments, and the interests of environmentalists, industry, and the American public all must be considered. The introduction of this study reviews some of the history of these problems, which plagued us in the 1970s and remain with us in the 1980s; begins to quantify at least a part of their great cost to the nation; and goes on to outline the programs that will be analyzed in the remainder of the study as alternatives to the Federal government's leasing and regulatory programs.

Development and History

Prior to the turn of this century, anyone who could extract minerals was encouraged to freely stake and mine claims on Federal lands. Resources were thought to be inexhaustible and the government was a catalyst in efforts to harness the "unlimited wealth." Franklin Roosevelt was the first President to consider regulating the continental shelf, specifically he wished to ensure "... Federal jurisdiction ... as far out into the ocean as it is mechanically possible to drill wells."
In 1934, the Department of the Interior (DOI) rejected a series of requests for leases off the coast of California, believing that these lands were outside Federal control. In May of 1945, however, the Department filed suit against the Pacific Western Oil Company to enjoin the firm from extracting oil of the continental shelf under State license. In September of that year, President Truman went on to proclaim the exclusive rights of the United States to the natural resources of the subsoil and seabed of all the continental shelf.\textsuperscript{12}

In 1947, the U.S. Supreme Court ruled in favor of the Federal government in the Pacific Western Oil case, recognizing its paramount rights to "... full dominion and power over the lands, minerals, and other things underlying the Pacific Ocean seaward of the ordinary low water mark. ..."\textsuperscript{13} Subsequent rulings clarified Federal jurisdiction over all the continental shelf off the nation's coast. It is appropriate that U.S. control over offshore resources was first established in a courtroom, for legal battles have been an unending and most significant facet of the Federal tenure over the continental shelf.

The 1947 Supreme Court decision moved the battle for offshore dominion to the political arena and focused attention on the "Tidelands Controversy." States sought Congressional action to return their jurisdiction. On two occasions, President Truman vetoed such bills, believing
there was ". . . no good reason for the Federal government to make an outright gift for the benefit of a few coastal States of property interests worth billions of dollars."14/

The second point in the debate turned on the significance of petroleum to the national security and well being. The U.S. had recently become a net importer of oil and the government, with industry, was just beginning its efforts to fully develop OCS resources, an effort that continues today.15/

With the election in 1952 of Dwight Eisenhower as President, temporary compromises were enacted. The Submerged Lands Act of 1953 gave coastal States title to submerged lands seaward to three miles off the coast—the limit of the U.S. territorial sea. Three months later, Congress passed the Outer Continental Shelf Lands Act (OCSLA) which provided statutory authority "... for the granting of leases in the outer shelf area and gave power to the Secretary of the Interior to administer the leasing and to prescribe such rules and regulations as were necessary."16/

Through 1969, OCS leasing proceeded slowly, with approximately one sale per year. Most lands nominated by industry were offered in sales. The program was limited to the Gulf of Mexico and a few tracts in Southern California; Interior's policy was one of pacing developing at a relatively slow rate to keep demand for leases strong, thus
keeping bonus bids high. With the relatively easy availability of onshore oil and gas and foreign imports, there was little academic, public, or political scrutiny of OCS activities or their value.17/

On the night of January 27, 1969, when Union Oil's Platform A in the Santa Barbara Channel "blew out," a series of events were triggered that would markedly change the U.S. OCS leasing program and throw it into the turmoil where it remains today. Writes Henry Lee, "No single incident of environmental degradation had had as profound an impact on the American conscience, . . . millions of people became firsthand witnesses to the effects of this major spill through the medium of television."18/

The 1970 National Environmental Policy Act (NEPA) marked part of Congress' reaction to rising environmental concern in the nation. At the center of NEPA is the requirement for an environmental impact statement (EIS) prior to the initiation of action on any program "... significantly affecting the quality of the human environment."19/ Each EIS must contain detailed discussions of such factors as the environmental impact of, the reasonable alternatives to, and the economic costs and benefits of the proposed action. Legal controversy over what specifically constitutes a thorough EIS continues and has been used extensively as a weapon by States and environmentalists to hinder development of the OCS.
In 1971, President Nixon, concerned over rapidly increasing national dependence on oil imports, ordered DOI to increase OCS leasing and publish a comprehensive five-year lease sale schedule. In April of 1973, Nixon again called for increases; from one million acres of leasing in 1973 to three million in 1974. Environmental litigation stalled these early Nixon initiatives.

The OPEC oil embargo of October 1973 brought public pressure for increased domestic energy production to bear upon the OCS program. The President instructed DOI to accelerate OCS leasing to ten million acres a year by 1975. At this time, numerous Congressional committees also undertook investigations.

Through the late 1960s and early 1970s, several intense and conflicting pressures came to bear upon State and Federal policy makers. Congress, in the 1970s developed two bills to deal with these rising pressures; however, it soon became apparent that policy directives within the two Acts were, to a great extent, mutually exclusive.

The OCSLA was amended extensively in 1978 after years of Congressional debate. In brief, the amendment's goals were to modernize the administrative policies and provisions of the Federal OCS leasing program to (1) make offshore oil and gas resources available to meet the Nation's energy needs as rapidly as possible; (2) balance orderly energy resource development with protection of the human, marine, and
coastal environments; (3) ensure the public a fair and equitable return on OCS resources; (4) coordinate consultations between the Department of Interior and the governors of affected coastal States; and (5) preserve and maintain free enterprise competition.21/

The Coastal Zone Management Act (CZMA) of 1972 was drafted to "... protect and give high priority to the natural systems of the coastal zone."22/ In the Act, Congress encouraged States "... to exercise their full authority over the lands and waters in the coastal zone" and directed that Federal activities be consistent, to "... the greatest degree possible," with State plans.23/ The Stratton Commission in 1969 had reported on the emergence of Federal-State conflicts with respect to marine and estuarine resources; CZMA was a Congressional effort to diffuse the growing political polarization.24/

In 1984 the U.S. Supreme Court ruled in the case, Secretary of the Interior v. California (104 S. Ct. 656 (1984)), that only Federal activities subsequent to OCS lease sales were subject to the consistency requirements of CZMA. California had argued that OCS lease sales under the CZMA must be consistent with the State's coastal zone plan, as sales were an essential step in determining where oil and gas activity would take place. The Supreme Court ruled, however, that lease sales did not directly impact the coastal zone (as exploration and development activities do),
so Federal pre-lease and lease activities could not be tested under the consistency requirement. This ruling was seen by many as contradicting Congressional intent under CZMA and a threat to States' rights offshore; it has since become a political issue and subject for much Congressional debate. To date, there has been no resolution of the issue.25/


Conflict and Litigation

The purposes and goals of this varying legislation from the 1970s, correct and worthwhile as each may be, set up a situation where real and direct conflicts exist between Federal laws and policy. In fact, within the OCS Lands Act Amendments (OCSLAA) themselves, there are intrinsically opposed goals that reflect an ongoing national dialectic.

The people of the United States have developed a strong environmental consciousness, as a result of the continuing acts of degradation wrought by our advanced society. The
oceans, and especially the coastal waters with which the majority of Americans have contact, are "sacred" in our minds; often subconsciously, the oceans are an enduring symbol for our hopes and dreams of a more pristine, simple life. Efforts to place drilling platforms off our beaches and the ensuing risks of perceived disaster are often viewed as running directly counter to the people's environmentalist thinking, which in recent years has been increasingly recognized as a steady and powerful force in this nation's political process.

Americans also cherish an indulgent life-style, which is taken to an extent unique in the world. Our daily routines are dependent upon an ever increasing supply of oil. The tremendous risks encountered through becoming so dependent upon foreign oil supplies are obvious, but even the gravest of warnings cannot shake the masses from their continued indulgence. National leaders have attempted to guarantee at least a measure of security by developing domestic supplies to the fullest; the OCS, where the majority of our undiscovered resources are believed to be buried, has naturally been a focus of these efforts.

The two worthy goals of increasing domestic production of hydrocarbons and protecting our coveted coastal environment are often in opposition. Other conflicts further confuse the debate, but this inevitable confrontation of national policies is the fulcrum of conflict.
The ongoing dialectic between national goals has proven very costly to this country. The OCS leasing and regulatory program has been in a constant state of flux since 1969, as the Federal officials, offshore operators, environmentalists, politicians, and other interest groups have sought to shape the development process out of various pieces of legislation that speak to all their interests. The result has been development of what many, both in and outside the government, believe is an excessively lengthy, expensive, and complicated leasing and regulatory system, that to this day remains mercurial. Continuing problems have had their own effect in shaping offshore development; an example of this would be the fact that industry has turned away from exploration work in frontier areas such as the North Atlantic and regions offshore Alaska where opposition to activity is strong. The effects have been predictable as the General Accounting Office concluded in a 1981 study: "The policies of government and the predictability of lease sales is a critical factor in determining industry interest in OCS activities." 26/

Litigation has played a central part in the development of a Federal leasing program for continental shelf oil and gas. Louisiana, subsequent to the Pacific Western Oil Company ruling establishing Federal domain, has been before the Supreme Court no less than ten times in attempts to establish its seaward boundary. In 1975 Atlantic coastal
States again took the battle over Federal/State offshore sovereignty to the Supreme Court, where previous rulings were upheld. To date, no coastal State has officially charted its three mile sea and suits to establish boundaries continue.27/

By far the greatest number of lawsuits, however, have concerned technical requirements and regulation of the OCS as it is handled by DOI under Congressional mandate. Many cases have been brought by environmental groups, endeavoring to assert the strictest possible rules over whatever oil and gas activity eventually takes place. States have been active in pursuing delaying actions, as a means of strengthening their consultative role in OCS decisions, pressuring the Federal government to initiate OCS revenue sharing, and ensuring stringent environmental regulation. With the exceptions of Texas and Louisiana, States have not taken a "partnership" role in supporting the Federal government's development of the OCS, and even Texas and Louisiana in 1984 brought suits to halt Gulf of Mexico OCS sales. Congress, in drafting the CZMA of 1972 and OCS Lands Act Amendments of 1978, attempted, but failed, to forge a harmonious relationship.

J. Robinson West, former Assistant Secretary of the Interior for Policy, Budget, and Administration, in a hearing before the House Merchant Marine and Fisheries Committee stated: "The benefits of the OCS oil and gas
program are spread across the nation, while the social and environmental risks are disproportionately concentrated locally."28/ West's simple statement makes clear the reason for much of the States' opposition to OCS activity.

Challenges to the adequacy of environmental impact statements (EIS) considering the OCS have been brought in thirteen suits since NEPA's inception in 1970. Legal precedents continue to be set and requirements clarified; but efforts to restructure the leasing program regularly reopen the process to entirely new rounds of suits.

Section 18 of the OCSLAA sets a step-by-step procedural process which must be followed in developing five-year leasing schedules, as well as a list of factors and considerations which must be examined in drafting the plans. Charges of DOI mishandling of these legislative directives have been brought in nine cases so far; preparation of a third five-year OCS leasing program to take effect in late 1986 will again provide grounds for future suits concerning the inadequacy of DOI administration of the OCSLAA.

The "consistency requirements" embodied in the CZMA have served as the basis for additional challenges to DOI actions in four cases. Further charges have also been brought in suits based upon the Administrative Procedures Act, the Endangered Species Act, the Marine Mammal Protection Act, and other Federal statutes.29/
Costs and Revenues

Between 1981 and July 1985, fifteen of the twenty-four OCS lease sales held nationally have been litigated. The DOI believes that, to a great extent, the political and legal opposition which these suits represent has been responsible for the thirty-four percent decrease in oil production over the past decade. This conclusion came out as part of a 1982 analysis by the OCS Revenue Sharing Working Group of the President's Cabinet Council on Natural Resources and Environment on "... the costs to the nation from delays in leasing, deletion of tracts from sales, legal costs, and other expenses incurred as a result of opposition from some of the coastal States." The study estimated the costs of opposition at $1.122 billion between 1978 and 1981; this is a conservative figure for there were many costs which the Working Group could not quantify and did not take into account. The analysis did not consider

- the effect of the "discounts" industry would logically subtract from bids on controversial tracts where litigation could be expected;
- the costs of early deletions of tracts to meet State demands prior to issuance of the proposed notice of sale;
- the costs of implementing various stipulations or studies; or
In conclusion, the Working Group attempted to estimate future costs, figuring on the acceleration of lease sales and continued State opposition to Federal efforts; it projected annual losses at over $1 billion. In reviewing the Group's findings the actual numbers arrived at are of little importance, as it would be almost impossible to derive "accurate and proven" costs; it is important to realize, however, that States' opposition to the OCS program does result in significant losses to the Nation.

The OCS oil and gas leasing program is now the largest producer of revenue for the Federal treasury after taxes and according to the Office of Management and Budget, "... an important component of President Reagan's economic recovery program." While the OCS program has grown to be an important source of income for the Federal government, its earnings have been erratic. This, to a great extent, is due to the fact that bonus bid revenues make up the greatest portion of total income from the program.

The Federal offshore leasing program first produced annual revenues over $1 billion in 1968, the following year the income was less than one-quarter of 1968 earnings. The income record has been erratic throughout recent decades; annual revenues for the period are set out on Table 1. In 1974 the program brought in more than $5.5 billion, in 1975 $1.7 billion. Earnings since 1979 have been relatively
Table 1. Revenue and Production Value, Federal OCS 1953-1983.

high, in 1981 income reached its record at just under $10 billion. In 1983, revenues totalled $9.160 billion, of which nearly $5.7 billion was from bonus bids, $3.4 billion was from royalties, and $37 million from rentals and minimum royalty payments.33/ Given the significance of bonus bid revenues in keeping total government earnings high, in this period of tight and highly controversial Federal budgets it is easy to conclude that pressures exist to keep leasing rates, and thus revenues, growing.

Commencement

There are a myriad of problems with the Federal OCS oil and gas program; while resources continue to be leased and developed, virtually no interested party would argue that the process takes place in a most efficient or rational way. Greater development of domestic energy resources, especially those of the OCS, is a most important national priority and as long as the OCS leasing and regulatory program remains in turmoil, the costs will only increase. There is also little hope for the situation to improve without significant action by Congress or the Executive branch, for previously enacted pieces of legislation provide all parties the legal bases from which to pursue their own interests in shaping the mercurial process.

Given the great number of problems with U.S. governance
over OCS resources, the even greater number concerned parties and interests trying to restructure the program for their own benefit, and the inestimable number of outside factors that control levels of activity on the OCS, efforts at reform are difficult. At the center of this nexus of problems, interests, and uncontrollable factors is the leasing and development program designed and managed by the Federal government. It is the framework into which all these factors fit, whether they are controllable by Federal actions or not. With its importance, it is ironic that, as Henry Lee writes in analyzing OCS resource development issues:

The technical and scientific aspects have received considerable attention, while institutional and procedural parameters have often been ignored. Yet it is clear that the decision-making process--this complex system of inputs and personalities--may be a more significant influence on the final decision than all the data and information put together.34/ This study is an attempt to assess the Federal OCS leasing and regulatory program through a comparative analysis process utilizing two coastal State management programs. The policies and approaches employed by U.S. coastal States offshore in many cases offer tested alternatives to Federal programs. The often conflicting or even mutually exclusive goals of the OCS management program are common to many other governments' programs--promoting offshore development to meet economic needs, allowing development while ensuring environmental protection,
receiving a fair and equitable return on public resources, and preserving competition. As these goals are so difficult to balance and bring into harmony, knowledge and assessment of the experiences others have had may lead to better governance; such comparisons have for too long been overlooked by struggling Federal resource managers.

The offshore management programs of Alabama and Texas have been chosen for consideration in this study, however a number of other State or foreign nations' programs also could have provided valuable comparisons. Alabama has a relatively new leasing and development program, which has only been the subject of significant interest and concern within the State since the 1979 discovery of commercially producible natural gas resources under Mobile Bay. Environmental restrictions have been stringent for work in State waters; all leases have included a zero discharge stipulation for rigs and platforms operating offshore. Royalties have ranged as high as twenty-eight percent, in addition to ten percent severance taxes and bonus bid requirements. In September 1984, Mobil Oil announced plans to initiate the first production of natural gas in State waters. Alabama was chosen to be a part of this study as an example of a program recently developed and going through many changes, while maintaining priority interest in State revenues and environmental protection.

Texas has a long and active history of development
within its coastal waters. The State's leasing system is well organized, smoothly run, and a source of significant revenue. Sales are held twice a year for lands nominated by industry and the Notice for Bids published prior to each sale includes codes describing all environmental concerns or stipulations for each specific tract offered, based upon input from all interested State and Federal agencies. After a general review of coastal States' programs, the Texas system was chosen for consideration in this study because of its effectiveness and efficiency.

The choice of two States with coasts on the Gulf of Mexico, where the overwhelming portion of OCS activity also takes place, sets up a study where many of the regional environmental and technological factors, as well as the public's perception of the oil and gas industry, are relatively constant. This allows for a better comparison of differing leasing and regulatory measures.

The first chapter of this study has briefly set out the importance of and continuing problems with the Federal government's OCS development program. The following two chapters will generally consider the conduct of the Alabama and Texas offshore management programs (respectively). The fourth chapter will outline the present status and procedures of the Federal leasing and regulatory program. This study's final chapter will compare varying facets of the three programs studied, assess the possible utility of
alternative leasing and regulatory measures to the Federal government in better meeting the goals of the OCSLAA, and conclude with a series of recommendations for action.

All offshore oil and gas leasing programs have certain common attributes: (1) clearly defined legal authority over lands or a given resource; (2) methods for distributing exploration and development rights; (3) an ability to gain return on rights and/or resources; and (4) regulatory authority over activities affecting the lands, resource, and/or surrounding lands and resources. As the Federal and State programs considered in this study are outlined, each facet will fall into one of these categories. While any number of comparative points between these programs could be discussed, only a few have been focused upon in the conclusion and they are the basis of the recommendations made.

The discussions of the Alabama, Texas, and Federal programs are opened with brief, straightforward histories of the legal and political actions that settled these governments' varying jurisdictions offshore. Thus, their authority over the submerged lands and resources to be discussed is established. Three areas are reviewed in the study's concluding chapter. As an alternative method for distributing exploration and development rights, changes in the Federal lease sale scheduling process are considered that could lead to increased development and competitiveness. Alternatives to the Federal government's reliance on
bonus bids are discussed as they affect the government's ability to gain returns on rights or resources. A system that increases reliance on royalty revenues relative to bonus bids is considered as it would ease certain indirect, but strong, pressures on Federal authorities to maintain high leasing rates. And a new approach to environmental regulation is studied as one facet of the authority that may be exercised over activities affecting the lands, resource, and/or surrounding lands and resources under the Federal jurisdiction. A coding system for offshore lease tracts that would benefit government regulators, the public, and the oil and gas industry is considered, as is the impact of more restrictive environmental regulation on development.

While it is understood that the programs analyzed are very different in terms of the underlying resources, the history and scope of the systems, and many other factors, when allowances are made there is a great deal to be learned, if from nothing else, others' mistakes.
CHAPTER I NOTES


5/ Office of Technology Assessment, Oil and Gas Technologies, p. 23.


7/ Ibid., p. 157.


12/ Lee, "Decision to Lease," p. 33.

13/ Ibid., p. 34.

14/ Ibid., p. 34.

16/ Ibid., p. 32.


18/ Lee, "Decision to Lease," p. 35.


20/ Belsky, "OCS Oil and Gas Policy," p. 91.


23/ Ibid., p. 434.


26/ General Accounting Office, Issues in Leasing, p. 56.


34/ Lee, "Decision to Lease," p. 32.
CHAPTER II
THE ALABAMA PROGRAM

For more than a century, the oil and gas industry has been active in the State of Alabama. In 1865 the first exploratory wells were spudded in Lawrence County, Alabama; it was not until 1944, however, that the first discovery took place in the State. The 1970s brought substantial increases in onshore oil and gas activity and for the first time made Alabama an important oil and gas producing State nationally (see Figure 1). In 1970, Alabama ranked 21st in the nation in the production of oil and condensate, and 26th in the production of natural gas. By 1983, the State ranked 17th in production of liquid hydrocarbons and 16th in production of gas.¹/

While the State has a long history of onshore development, and significant increases in industry activity and State revenue during the 1970s brought little notice or controversy, the same cannot be said for offshore operations in State waters (see Figure 2).

State Jurisdiction

The State of Alabama's jurisdiction over coastal waters off its shores was defined by two U.S. Supreme Court rulings. On September 26, 1953, the State of Alabama filed
Figure 1. Oil, Condensate, and Gas Production in Alabama 1944-1983.
(State Oil and Gas Board, The Petroleum Industry in Alabama, 1983, p.3.).
Note: Severance taxes are computed based on the gross value of the hydrocarbons at the point of production. During the period covered by this figure Alabama levied an eight percent severence tax on production.

Figure 2. Alabama State Severence Tax Collected by Calendar Year 1948-1983.  
(State Oil and Gas Board, The Petroleum Industry in Alabama, 1983, p. 7.).
suit in the Supreme Court to test the constitutionality of the Submerged Lands Act (Public Law 83-31), which had been signed into law on May 22, 1953. Alabama and its codefendants raised two objections to Public Law 83-31: (1) it was claimed Congress could not dispose of public lands because submerged lands and natural resources were held in trust for all the States rather than the select coastal States; and (2) it was held that the Act violated the equal-footing clause which guarantees equal rights to all States upon admission to the Union (Alabama v. Texas, Louisiana, Florida, California, and the Secretaries of the Treasury, Navy, and Interior, and the Treasurer of the U.S. (347 U.S. 272-273 (1954))). On March 15, 1954, the Court denied the motions of Alabama and Rhode Island, which had filed a second, similar case, ruling in a brief, per curiam, opinion that Congress had the power to dispose of any kind of property belonging to the United States without limitation.2/

The second Supreme Court decision leading to settlement of Alabama's offshore jurisdiction came in the May 31, 1960 ruling in the case of United States v. Louisiana, Texas, Mississippi, Alabama, and Florida (363 U.S. 1, 121 (1960)). Alabama claimed that when the State entered the Union in 1812, its boundaries were defined as extending offshore six marine leagues and that the act enabling its entrance to the Union recognized such a boundary (one marine league equals approximately 3.45 statute miles). The boundary description
literally read "including all islands within six marine leagues of the shore" and the Court ruled that such wording established claim only to the islands and thus did not include the waters or submerged lands within that distance.3/ On similar grounds, the boundaries of Louisiana and Mississippi were also ruled to extend only three geographic miles offshore, as legislated in the Submerged Lands Act.

While Public Law 83-31 set the extent of jurisdiction offshore, no coastal State has ever legally defined its coastal baseline or mapped its seaward boundary. Thus governance of submerged territory offshore takes place under customary agreements between the concerned coastal State and the Federal government.4/

Early Offshore Exploration

While the State's offshore jurisdiction is not yet officially settled, in the 1950s oil and gas activities in coastal waters were initiated. The State divided the waters off its shore into four sectors--A, B, C, and D, and in 1951 allowed Gulf Oil to drill two exploratory wells. The first well, completed on December 5, 1951, reached a total depth of 10,027 feet. The second Gulf well, plugged and abandoned on January 31, 1952, reached a depth of 11,020 feet. Neither well reported shows of oil or gas resources.5/

Following completion of Gulf's second well in January
1952, no drilling took place in Alabama coastal waters until November 1978, though Mobil Oil Exploration and Producing Southeast, Inc. (MOEPSI) sought permits for exploratory work between 1969 and 1978. While oil and gas development onshore in Alabama proceeded during the 1970s, environmental concern (as expressed through litigation) halted efforts to move ahead with any offshore drilling for nearly a decade. Mobile Bay, inside the coastal barrier islands, is for the most part only between six and twelve feet deep. Environmental and coastal interests voiced fears that oil and gas activity in such a sensitive area would degrade the Bay and threaten the State's seafood and tourist industries. The "zero discharge" regulations, under which offshore operators in Alabama's waters work today, make clear the State's commitment to "... seeing that offshore oil and gas exploration and exploitation do not negatively impact the quality of a State's coastal areas and adjacent waters. Alabama's approach in this regard seems carefully considered."

While no drilling took place in Alabama coastal waters between 1952 and 1978, large areas of the State's submerged lands were leased in numerous sales between 1951 and 1969. During this period there was no clearly defined leasing program as would be recognized today. Many of the leases were awarded for as little as two cents per acre and only eight leases brought more than $20,000 in bonus bids. The
highest of these bids totaled only $39,408. Lands were leased many times, however; Tract 94, which is now part of the productive Lower Mobile Bay-Mary Ann Field, was leased four times between 1956 and 1969 (see Figure 3).

The most significant of these early offshore lease sales occurred in October 1969. In that sale, MOEPSSI leased Tracts 76, 77, 94, and 95 located near the mouth of Mobile Bay. The four leases were awarded for a total bonus of $78,822, with 16.67 percent royalty rates, annual rental payments of $1 per acre, and five-year lease terms.

Following award of these leases, MOEPSSI began the nearly decade-long legal battle to obtain the permits necessary for spudding an exploratory well.

On November 17, 1978, MOEPSSI initiated drilling on Tract 75 and a year later announced discovery of a significant natural gas reserve. Delineation drilling has since led to reserve estimates for the Lower Mobile Bay-Mary Ann Field as high as 600 billion cubic feet of gas. Subsequent discoveries have led analysts to predict that the Mobile Bay area's Norphlet formation may be one of the five largest natural gas reserves in the nation.

Since Mobil Oil's discovery of significant natural gas reserves in the Mobile Bay area, every exploratory well drilled below 20,000 feet into the Norphlet formation has shown productive flows of gas. As of December 31, 1984, ten wells had been drilled in Alabama waters subsequent to
Figure 3. Offshore Oil and Gas Activity in the Mobile Bay Area.
(State Oil and Gas Board, *Oil and Gas Leasing*, p.3.).
Mobil's discovery well. More information on these wells is presented on Table 2. Offshore operators, especially Exxon and Mobil, have been anxious to spud more wells in the area, but have been restricted by the time consuming nature of the regulatory process. Numerous wells drilled in the Mobile and Pensacola Federal OCS leasing areas adjacent to Alabama State waters have also proven productive and extended the known parameters of the Norphlet formation.

Prior to the 1979 Mobil Oil discovery in Alabama waters, only one exploratory well had been drilled in either the Mobile or Pensacola Federal OCS leasing areas. More than a dozen OCS wells were spudded between the 1979 discovery and the close of 1984; much of this activity is a direct result of the success of wells drilled in Mobile Bay.

In September 1984, Mobil Oil announced its plans to initiate the first development project in Alabama waters. Plans call for the placement of four production platforms in the Lower Mobile Bay-Mary Ann Field area at a cost of $400 million. Production will be transported by pipeline to an onshore gas processing plant built to handle up to eighty million cubic feet of natural gas per day. The Mobil Oil's original plans called for production initiating in late 1986. Given the number and size of natural gas discoveries made in the Mobile Bay area's Norphlet formation, this development project offshore Alabama is expected to be only the first of many.
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¹MD - measured depth in feet.
²PA - plugged and abandoned.
³NA - not available.
⁴Sl - shut in.
⁵TA - temporarily abandoned.

Table 2. Wells Drilled in Alabama State Waters. (State Oil and Gas Board, Oil and Gas Leasing, p.34.)
lication and Natural Resources with the approval of the Governor. The authority for this leasing activity is found in Section 9-17-62 of the 1975 *Alabama State Code*, which reads as follows:

The commissioner of conservation and natural resources, on behalf of the state, is hereby authorized to lease, upon such terms as he may approve, any lands or any rights or any interest therein under any navigable streams or navigable waters, bays, estuaries, lagoons, bayous or lakes and the shores along any navigable waters to the high tide mark and submerged lands in the Gulf of Mexico within the historic seaward boundary of this state, which is hereby declared to extend seaward six leagues from the land bordering the gulf, for the exploration, development and production of oil, gas and other minerals or any one or more of them, on, in and under such lands, and such lands or interests therein for such purposes shall be supervised and managed by the department of conservation and natural resources.

The Commissioner of the Department of Conservation and Natural Resources is appointed by the Governor and has sole authority for leasing. Within the Department, the Division of State Lands handles the leasing program.

Under Section 9-17-65 of the 1975 *State Code*, the Commissioner is to lease all lands by sealed competitive bids. Invitations to bid must be published in The *Montgomery Advertiser* at least twenty-five days before the final date for submitting bids and the bids are to be opened publicly in the office of the Commissioner on the date specified in the invitation.

Within Section 9-17-65 are the vague directives that establish the goals of the State's leasing program. In the
passage of the section that follows are the essential guidelines—that the bidder be "responsible," that the "public interest" be served by award of the lease, and that the lease be awarded on the basis of the "most advantageous offer" to the State.

The lease of any tract of land shall be awarded to the highest responsible bidder making the most advantageous offer to the state, and the commissioner of conservation and natural resources must either accept the most advantageous offer or reject all bids within five days from the date said bids were opened. The commissioner of conservation and natural resources may reject all bids on any tract of land when, in his opinion, the public interest will be served thereby, but such tract of land shall not thereafter be leased except in accordance with the provisions of this division.19/

Given the limited number of submerged blocks in State waters, the Commissioner has established no schedule for lease sales offshore.20/ It is the desire of the State to ensure that enough advance notice of sales is provided to allow potential bidders adequate time to assess tracts and develop bidding strategies. For the August 1984 offering, the first announcement, a Call for Nominations, was issued in September 1983—nearly a full year prior to the sale (see Appendix 1).21/

While the Commissioner may have preferred methods for the conduct of a lease sale, the fact that there have been only three sales in recent times means that no set, established practices are recognized. With growing industry interest in the Norphlet gas formation underlying State
waters and the large sums of money involved, the conduct of lease sales has come under significant political influence in the absence of set practices.

The offshore offering in March 1981 resulted in the award of thirteen leases for a total bonus of $449,178,059 to the State. In 1982, facing a serious shortfall in State revenues, the Department of Conservation and Natural Resources conducted the entire pre-lease sale process for a second sale in only sixty days. The September 1982 sale resulted in the award of just one lease for a bonus bid of $3,117,000. For the 1981 sale, the average accepted bid per acre was $8,156; for the 1982 sale it was $2,406.

The pre-lease sale schedule for the August 1984 State offering was set up without any significant political pressures on the State Lands Division; it is expected to be a guide for future Alabama sale schedules. The Call for Nominations was issued September 1, 1983 and the Deadline for Nominations was seven months later. Tract nominations could be submitted by any party, but industry interests served as the basis for the State's initial determinations.22/ A month after the nominations deadline, Preliminary Tract Selection was announced; approximately two weeks later a public hearing was held. Deadline for Comments was two weeks following the hearing; and one week after the deadline, Final Tract Selection was made. A week after the final selection, the Legal Notice of Sale was
issued and approximately two months later, on August 14, 1984, the sale was held. The Governor, at the Commissioner's recommendation, accepted 18 high bids for a total bonus of $347,483,000 or an average bid per acre of $4,630; six high bids on additional tracts were rejected as insufficient. The leases awarded had a five-year primary term, an annual rental of $5 per acre and a 25 percent royalty after payout.23/

Reviewing the results of sales subsequent to the Mary Ann Field discovery, in Alabama's 1981 offering, 116 bids were received for 35 tracts, 13 leases were awarded, and the per acre average of bids accepted was $8,160. In 1982, 9 bids were received for 6 tracts, 1 was accepted, and the winning bid offered $2,406 per acre. In 1984, 58 bids were received for 24 tracts, 18 leases were awarded, and the average bonus was $4,630. Analysis of these results suggests that competition for the best tracts following the 1979 discovery was very strong in 1981, with many bids and high average bonuses per acre. In 1982, the State rushed its sale process to raise operating funds and statistics make clear that neither the industry nor the State was happy with the results. In 1984, the State held what it hopes will become a "model sale" and while the results were not as impressive as in the 1981 offering, they were relatively good.

The rejection of bids for five tracts in 1982, consider-
ing the political pressures to raise revenues, made clear Alabama's commitment to ensuring the highest reasonable returns on its offshore resources. A simple comparison of Federal and State sale results is startling in this regard. In the August 1984 State sale, the average bid per acre from all those received was $3,470; four months earlier in the Central Gulf of Mexico OCS Planning Area Lease Sale 81, the second area-wide sale in the area, the average per acre bid of all those received was $580.24.

While the number of tracts available in the two sales was very different, and the geology of the lands in the offerings covering vast areas of the Gulf of Mexico varied widely, the results are striking and the analysis to follow of Alabama's environmental restrictions and fee structure will only make more apparent the wide differential.

Cost Structure

Along with numerous other facets, the fee and royalty requirements for each offshore lease sale vary. For the August 1984 lease sale, the State required a $25 fee for each tract nominated. Royalty rates up to the point of payout varied and were part of the bid; following payout the royalty rate was set at 25 percent on all tracts. Among the accepted bids for the August 1984 sale, ten leases had pre-payout royalty rates of 16.67 percent and eight had
rates of 20 percent. In addition to the leases awarded in the 1984 sale, Alabama has eighteen active offshore leases. The four leases issued in 1969 that form the Mary Ann Field have royalty rates of 16.67 percent. The one lease awarded in 1982 has a rate of 25 percent and for the thirteen leases awarded in the 1982 sale, the royalty rates are 25 percent (seven leases); 27 percent (four leases), and 28 percent (two leases). Rental fees for the 1969 leases were set at $1 per acre per year; since that sale the annual rates have been set at $5 per year. All active leases had primary terms of five years.

Effective January 1, 1984, the State Legislature acted to lower Alabama's severance taxes on offshore production obtained from depths greater than 18,000 feet below mean sea level from 8 to 6 percent (Act No. 83-889). As all recent discoveries have been made in the Norphlet formation which lies at depths greater than 20,000 feet, this new tax rate was to serve as an incentive to offshore development. In addition to the 6 percent severance (or privilege tax), the State has a 2 percent production tax, so that the effective rate on offshore production is currently 8 percent.

On all Federal leases in the Gulf of Mexico OCS Region, the royalty rate is 16.67 percent and there are no severance, privilege, or production taxes. The differential between State and Federal royalty and tax rates has been a source of concern to State regulators and industry officials.
since the 1979 Mary Ann discovery. The Alabama Petroleum Council, an industry group associated with the American Petroleum Institute, has repeatedly warned State legislators that operators will choose to produce from Federal leases adjacent to Alabama waters rather than pay the State's high tax rates. However, given the industry's continuing high level of activity and Mobil Oil's plans to initiate production on the Mary Ann Field, it is clear that Alabama's high royalty and tax rates are not a determining factor in a significant number of cases. It is impossible to determine in how many instances operators did choose to work in Federal waters rather than State as a result of the cost differential, for industry officials guard such competitive information closely.

Local governments in Alabama have no ability to annex offshore lands or tax any activity in State waters. Levies on oil and gas facilities related to offshore work that are located within their jurisdictions are allowed, however.

Revenue Distribution

Under the 1975 Alabama Code Section 19-17-68, ninety percent of revenues from bonus bids, royalties, and rentals collected by the State Lands Division of the Department of Conservation and Natural Resources is paid into the general funds of the State. The remaining ten percent of these
funds is appropriated to the Lands Division to pay its administration costs.

In the legislation amending severance tax rates, effective January 1, 1984 (Act No. 83-889), the distribution of those taxes was also determined. Under Section 40-20-8 of the 1975 Alabama Code (as amended January 1, 1984), ninety percent of severance taxes are to be deposited in the State's general fund. The remaining ten percent of the taxes is to be distributed to the county adjacent to the waters where the taxed oil or gas was produced. This money is to be expended at the discretion of the county governing body.

The State's leasing and regulatory process for offshore oil and gas development has no allowance for county or municipal participation beyond the right to comment at appropriate points as afforded all parties. The revenue sharing clause in the legislation amending the State's severance tax rates thus can be seen to have little effect on Alabama's program in the future when offshore production is initiated.

Post-Lease Regulation

Once the Department of Conservation and Natural Resources has finalized an operator's offshore lease, three agencies take on significant roles in the regulatory
process—the State Oil and Gas Board, the State Department of Environmental Management, and the U.S. Army Corps of Engineers. The State has sought to carefully protect its marine and estuarine resources, thus the permitting process, in the past, has often proven long and arduous. It took Mobil Oil nearly a decade to gain approval for its 1979 exploratory well, the first in State waters since 1952, and following the 1982 State lease sale, it took sixteen months for work on the first exploratory wells on those leases to be fully approved. In both cases, the operators remained anxious and accommodating to the regulatory agencies throughout the period leading to permit approval. The high level of activity and the streamlining of approval processes are expected to lead to more timely approvals for exploratory work in the future. It is too early to predict how the approval process in State waters will proceed for development and production work as the first, and as yet only, project is only currently in the planning and preparatory stages.

State Oil and Gas Board

The State Oil and Gas Board is charged under the 1975 Alabama Code, Sections 9-17-1 through 9-17-32, with regulation of State oil and gas industries, issuance of drilling permits, and formulation of regulations and standards for
operations including the development of pollution regulations. The goals of the Board's actions are generally to prevent the waste of the State's oil and gas resources, and to protect the correlative rights of landowners and leaseholders.32/ The Board, more specifically, is responsible for requiring that oil and gas drilling be conducted so as to prevent seepage between separate oil and gas strata, preventing the pollution of fresh water supplies by oil, gas, or saltwater, preventing the drowning by water of any stratum capable of producing oil or gas, and preventing other manner of blowouts, caving, or seepage.33/ Examples of the Board's duties include inspection of records and field operations, promulgation of rules and regulations (subject to public hearings), assignment of production allowables, maintenance of well records, and imposition of pooling or utilization actions.

The Board is composed of three members appointed by the Governor to serve staggered six-year terms. The State Geologist, who is appointed by the President of the University of Alabama with the confirmation of the Governor, serves as Oil and Gas Supervisor.34/ The Supervisor is responsible for carrying out the formal regulations, duties, and decisions of the Board, and serves as ex officio Secretary of the Board.35/
The second State agency with a significant role in the post-lease regulatory process is the Alabama Department of Environmental Management (ADEM). In 1982, ADEM was established through the consolidation of a number of small State agencies, including the Alabama Coastal Area Board, the Water Improvement Commission, the Pollution Control Finance Authority, and the Air Pollution Control Commission. The consolidated agency is responsible for dealing with, inter alia, air and water pollution, solid and hazardous wastes, water quality and treatment systems, and coastal zone management as well as related permitting regulatory and enforcement functions. Overseeing the agency, its directors, and staff, is the seven member Environmental Management Commission. In an advisory role to the Commission is the Coastal Resources Advisory Committee.

While ADEM has no role in the leasing process, its regulatory power over the offshore hydrocarbon development process in Alabama is significant. The agency issues water quality certification under Section 401 of the Clean Water Act for U.S. Army Corps of Engineers 404 permits; reviews Corps permits for Section 10 of the River and Harbor Act, and Section 404 of the Clean Water Act to establish coastal zone management consistency; and has the authority for implementing the National Pollutant and Discharge Elimination
The State of Alabama currently enforces a "zero discharge policy" for offshore operators within the State's jurisdiction. This policy was first set out in the mid-1970s by a "blue ribbon" commission appointed by the Governor. The Commission's findings were based on a study of the Mobile Bay coastal zone, a review of past drilling operations, and a review of the standing rules of the State Oil and Gas Board which prohibited the discharge of oil in any form, drilling muds, and cuttings, additives, and solid wastes.

In July 1981, the various State agencies and commissions responsible for water quality in Alabama (most of whom were soon to be consolidated into ADEM), issued a State position statement in an attempt to coordinate oil and gas regulatory and permitting activities in Mobile Bay between themselves and the Federal government. Significant facets of the statement included:

- the prohibition against discharge of any pollutants into the water;
- the permitting of only the absolute minimum number of exploratory drilling rigs, production platforms, wells, transportation corridors, and pipelines justified by the industry; and
- establishment of a continual monitoring program to measure and analyze ecosystem impacts in State
While neither ADEM or the State Oil and Gas Board fund ongoing research or the regular collection of baseline environmental data, the other facets of this policy statement have been implemented. Limitations on the number of drilling rigs and development operations, as well as the zero discharge policy, are regulated through permitting. The zero discharge policy has also been set out in lease stipulations in the last three State offshore sales. A section of the lease form used in the 1982 sale read as follows:

LESSEE shall use all means at its disposal to recapture all escaped hydrocarbons or other pollutants and shall be liable for all damages to aquatic or marine life, wildlife, birds, and any public or private property unless the discharge or other polluting condition was the result of an act of war, an act of government, an act of God, or an act or omission of a third party acting without the consent of the LESSEE.

Responsibility for enforcing the zero discharge policy and other permit stipulations is shared by four agencies. Inspectors from the State Oil and Gas Board and Army Corps of Engineers regularly visit offshore platforms to oversee operations and review the records kept of hydrocarbon and waste production, storage, and transportation. Environmental inspectors from ADEM and law enforcement officers from the Department of Conservation and Natural Resources also regularly patrol the waters surrounding offshore platforms for signs of any illegal discharges.

At the 17th Annual Offshore Technology Conference in
Houston, Texas, during May 1985, two representatives of Exxon USA presented information on the company's experience working in Alabama State waters. Exxon has interpreted State regulations and lease stipulations to prohibit the discharge of all drilling fluids, formation cuttings, cement, contaminated deck drainage, sewage treatment unit effluent, produced formation water, engine cooling water, and other pollutants. In the Exxon operations cited in the study, all such wastes were collected in barges moored adjacent to the drilling rigs. Barges were then transported to waste unloading facilities onshore for processing and disposal.

The study considered the results from three wells Exxon completed in Alabama waters during 1983-84. It was found that most existing drilling rigs required modifications to containment systems and plumbing in order to collect and route all wastes to the barges, but that some recently constructed rigs incorporated these systems into their design and original construction.

The largest single cost for zero discharge compliance was for onshore processing and disposal of drilling wastes. Overall the two major factors determining waste volume generated on board the rigs were drill hole sizes and total days of operation. Exxon employed four additional personnel on each of its rigs to maintain and operate the waste collection equipment on a twenty-four hour a day basis.
The study concluded that inclusive costs for zero discharge compliance ranged from 13.7 to 22.1 percent of total well cost; a breakdown of cost percentages is presented on Table 3. Only for one of the three wells drilled was rig modification required; that cost was 3.6 percent of total well cost. Costs for onshore waste disposal varied from 6.0 to 8.5 percent of total well cost.

Since discovery of the Lower Mobile Bay-Mary Ann Field in December 1979, there has been only one significant violation of Alabama's zero discharge policy. During the period from spring 1981 through June 1982, there were unlawful, willful discharges from rigs drilling to delineate the Mary Ann Field. Mobil Oil admitted the spills occurred and agreed to pay $2 million in penalties after the Alabama Attorney General filed a suit based on violations of the State's Water Pollution Control Act. The company also agreed to pay for cleanup of the pollution, estimated to cost approximately $500,000; fired fifteen employees, disciplined eight; and transferred all other personnel who had worked on the Mobile Bay operation. The civil penalty was the largest in the State's history and following settlement the Attorney General stated, "We welcome the responsible development of Alabama's abundant fossil fuel resources, but at the same time we are fully committed to protecting our irreplacable waterways and shorelines." The penalties collected were put into funds for law enforcement, environ-
Percentages of Total Well Costs

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</tr>
<tr>
<td>TOTAL</td>
<td>22.1</td>
<td>13.7</td>
<td>21.9</td>
</tr>
</tbody>
</table>

Table 3. Exxon Estimated Costs of Compliance with Alabama Zero Discharge Stipulation and Location of Wells Drilled. (Carlton and Darby, "Drilling Operations Under 'No Discharge' Restrictions," 4:544.).
mental management, and the monitoring of Mobil Oil wells in State waters.

Following an investigation where it was established that discharges were made while wastes were being transferred between compartments in the holding barge, Mobil Oil set up new operating procedures. The company maintained that all discharges took place against direct orders and its new system sought to avoid future transgressions. Among other changes, a system of measures and records was put in place to monitor waste barge displacement and transfers, brighter barge lighting systems were installed, only the drilling supervisor was given keys to pump controls, and unscheduled inspections were initiated.43/

U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers is the third agency having a significant role in post-lease regulation of oil and gas activity in Alabama waters. Specifically, Section 10 of the River and Harbor Act of 1899 prohibits construction in navigable waters, or the excavation, deposit, or accomplishment of any other work affecting the course, location, conditions, or capacity of such waters unless the work has been authorized by the Secretary of the Army. Also, under Section 404 of the Clean Water Act, the Secretary issues permits for the discharge of dredged or fill material
into navigable waters.44/

As the regulatory process has developed in the period following the 1979 Mary Ann Field discovery, the Corps approval, and the time required for it, has become the determining factor for an offshore operator anxious to initiate exploratory drilling. Following the 1981 State offshore lease sale the first permits were received from the Corps only after sixteen months of review. Prior to submitting an application to the Army, the operator must complete an extensive site survey including analysis of cultural and historic resources, benthic flora and fauna, and bottom hazards. According to Dr. Harlan Johnson, manager of Exxon's operations in the Mobile Bay region, this survey requires approximately one month of work.45/ Along with the survey, applicants submit detailed project descriptions including drawings, lists of adjoining property owners, and status of approvals or certifications required by other Federal and State agencies. The application an offshore operator must make to the Corps is the most thorough, expensive, and time consuming to prepare of all those required for work in Alabama waters.

Following completion of an application, public notice is issued and a thirty-day comment period begins; during this period a public hearing may be held. The Corps states that evaluation and approval once the public comment period is closed, if there are no serious objections, should take
approximately sixty days. In 1967, the Secretaries of the Army and Interior signed an agreement regarding the Corps permit approval process. Prior to 1967, the Corps saw its basic role as protecting navigation channels; under the Secretaries' agreement, however, the Corps agreed to give all facets of environmental impacts equal consideration and consult closely with other Federal agencies, such as the Fish and Wildlife Service, in the course of reviewing permits.46/

Prior to approval of permits by the Corps, ADEM issues its water quality certification under Section 401 of the Clean Water Act and consistency determination under the Coastal Zone Management Act.47/ Other approvals required prior to initiation of drilling include a drilling permit from the State Oil and Gas Board, a very technical, engineering-oriented certification that takes place approximately six weeks to be evaluated; clearance from the State Department of Conservation and Natural Resources for the specific location of a well, as required in lease stipulations; air quality certification from ADEM; a license from the State Docks Department for placement of a structure in navigable waters; and permits for navigational aids from the U.S. Coast Guard.48/

Under its authorities based on the Clean Water Act and River and Harbor Act, the Corps completed in November 1984 a Final Generic Environmental Impact Statement (GEIS) for Ex-
ploration and Production of Hydrocarbon Resources in Coastal Alabama and Mississippi. The Corps' GEIS sets out to assess cumulative effects of resource development on Mississippi and Alabama's coastal waters and the adjacent Federal OCS. This information will be used by the District Engineer in deliberations concerning future permit applications.

In cases where there are no serious complicating factors, that is, where the proposed work site is "clean," the GEIS will allow for the streamlining of the Corps permitting process as no public comment period will be required. According to Dr. Johnson of Exxon, the GEIS is only expected to be employed in a very limited number of cases, as finding a site that all parties concerned agree is "clean" is rare, and in any case the GEIS can only cut approximately thirty days from the process. 49/

Summary

In analyzing the offshore oil and gas leasing and regulatory system that has been developed by the State of Alabama since discovery of the Mary Ann Field in 1979, three conclusions are most significant: (1) Leasing, exploration, and development activity is proceeding at a strong and increasing pace; (2) revenues to the State from offshore activity are significantly higher than those received by the Federal government on adjacent OCS lands based on per acre
bonus bids, and potential royalty rate, and severance and production tax revenues; and (3) though tracts have not yet been developed, the State has placed very stringent and costly environmental restrictions on offshore operators relative to Federal regulation.

The increasingly high level of activity in Alabama's waters is clearly a result of the fact that every well drilled in the Norphlet formation from State blocks has produced significant gas reserves. Industry sources had argued that Alabama's high tax and royalty rates, as well as stringent environmental protection regulations, would limit offshore exploration and development. It is impossible to ascertain whether some operators have in fact not ventured into Alabama waters for these reasons, but at the present time the limiting factor on industry activity levels is the time and work required to complete the regulatory process rather than any lack of interest.

The State of Alabama remains very protective of its coastal waters, as the Bay environment, due to its small size and shallow waters, is seen as extremely vulnerable. The 1982 suit against Mobil Oil for illegal discharges into the Bay clarified the State's position and the severity with which violations would be treated. As exploration activity has increased and development plans have been put forth, relaxation of the zero discharge policy has not been set out as a serious proposal by either State or industry officials.
While State legislators did act to lower severance taxes from deep wells by two percent effective January 1, 1984, costs of operating in Alabama's waters remain very high in comparison to adjacent Federal OCS lands. Results of the September 1982 State leasing offering, where only one bid was accepted while political pressures to raise revenues were high, made clear Alabama's commitment to maximizing returns from the limited number of offshore tracts within its jurisdiction. Continuing high levels of activity are evidence of offshore operators' belief that there are profits to be made from offshore gas reserves even with royalty rates as high as 28 percent, 8 percent severance and production taxes, $5 per acre annual rental rates, bonus bids many times higher than those offered for nearby Federal blocks, and zero discharge restrictions on all operations.

For the future, there are questions as to how absolutely effective the State's environmental regulations will be as numerous, large-scale development projects are put in place, or how development will proceed once lower cost Federal lands adjacent to State blocks are brought into production. At present, however, Alabama's commitment to maximizing revenue returns from offshore lands while minimizing environment degradation would appear strong and successful.
CHAPTER II NOTES


3/ Ibid., pp. 143-144.


6/ Ibid., p. 4.


9/ State Oil and Gas Board, Oil and Gas Leasing, p. 4.


13/ State Oil and Gas Board, Oil and Gas Leasing, p. 34.


15/ U.S., Department of the Interior, Minerals Management Service, Gulf of Mexico Summary Report September 1984,

16/ Hagar, "Mobile Bay Shaping Up," p. 28.

17/ Miller and Rinkel, Oil and Gas Leasing in Florida, p. AL-11.


19/ Alabama, State Code (1975), sec. 9-17-76.

20/ Robert Macrory, Director of the Lands Division, Alabama Department of Conservation and Natural Resources, Montgomery, Alabama, interview held August 1985.

21/ Alabama, Department of Conservation and Natural Resources, Call for Nominations Submerged Lands (Montgomery, September 1983).

22/ Macrory, interview August 1985.

23/ Alabama, Department of Conservation and Natural Resources, Summary of Oil and Gas Lease Sale, August 14, 1984 (Montgomery, 1984).


25/ Department of Conservation and Natural Resources, Call for Nominations.

26/ Department of Conservation and Natural Resources, Summary of Oil and Gas Lease Sale.

27/ State Oil and Gas Board, Oil and Gas Leasing, p. 29.


30/ Redden, "Mobile Bay Hurt," p. 34.

31/ Miller and Rinkel, Oil and Gas Leasing in Florida, pp. AL-16-17.


34/ Miller and Rinkel, Oil and Gas Leasing in Florida, p. AL-8.


39/ Miller and Rinkel, Oil and Gas Leasing in Florida, p. AL-21.


42/ Oil and Gas Journal 80:40 (October 1982), "Mobile to Pay for Mobile Bay Discharges," p. 46.


47/ Army Corps of Engineers, Final Generic Environmental Impact Statement, p. 2.7.


49/ Ibid.
The first oil well in Texas was drilled in 1866 and in 1928 the State became the nation's leader in oil production. Texas hydrocarbons accounted for 19.5 percent of domestic energy produced in 1983, including 35.5 percent of natural gas and 27.8 percent of oil. The petroleum industry employed one out of every eighteen workers in Texas in 1983 and more than 50 percent of State revenues were attributable to the industry. As J. C. Walter, Jr., Chairman of the Texas Mid-Continent Oil and Gas Association, has said, "The Texas petroleum industry is the cornerstone of the economy of our State as a major employer and primary source of tax revenue at State and local levels."1/

In waters off the Texas Gulf Coast the first oil and gas lease was awarded in 1922; the first well spudded in 1938; and the first production initiated in 1940. In 1984 the State's leases in Gulf of Mexico waters produced 2.9 million barrels of crude oil and 176 billion cubic feet of natural gas. Since 1932 more than $4.5 billion has been deposited into the Texas Permanent School Fund, much of it revenues from the lease and production of offshore oil and gas resources.2/

From this series of facts and figures concerning the petroleum industry in Texas the industry's long and impor-
tant history in the State is clear, as is the fact that the State has interests in supporting continued high levels of oil and gas development. The prosperity of Texas is directly related to the prosperity of the petroleum industry. At the same time the State has the responsibility to assure receipt of fair returns from the production of public resources and to protect the environment for its citizens and the future. In considering the State's management program for offshore oil and gas resources, as it has developed since 1922, the efficiency of the program and effectiveness of its environmental analysis stand out.

State Jurisdiction

The State of Texas' boundary in the Gulf of Mexico was established on May 31, 1960, when the Supreme Court handed down its decision in the case of United States v. Louisiana, Texas, Mississippi, Alabama, and Florida (363 U.S. 1, 121 (1960)). The instant proceeding was initiated in 1955 when the United States initially sought to establish its jurisdiction over the continental shelf off Louisiana beyond the territorial sea boundary lying three geographic miles off the coast. While the original case brought by the U.S. only concerned the submerged lands and minerals off Louisiana, following preliminary procedures which included presentation of an amicus curiae brief by Texas, the Court ordered the
suit broadened to include all States bordering the Gulf. In the order issued June 24, 1957, the Court stated:

the issues in this litigation are so related to the possible interests of Texas, and other States situated on the Gulf of Mexico, in the subject matter of this suit, that the just, orderly, and effective determination of such issues requires that they be adjudicated in a proceeding in which all the interested parties are before the Court.3/

The Supreme Court found in 1960 that Texas, as an independent nation prior to its admission into the Union, had a three-league maritime boundary. In the Republic of Texas declaration of independence from Mexico its boundaries were described, in part, as "beginning at the mouth of the Sabine River, and running west along the Gulf of Mexico three leagues from land, to the mouth of the Rio Grande."4/ In the joint resolution of Congress annexing Texas the territory "properly included within, and rightfully belonging to the Republic of Texas" created the State of Texas, "subject to the adjustment by this government of all questions of boundary that may arise with other governments."5/

The Court in reviewing the history leading to passage of the U.S. Congress' joint resolution of annexation found no reference to maritime boundaries. Further, the Court found that the limiting "properly," "rightfully," and "adjustment" clauses of the resolutions were included only as references to continuing disputes over boundaries with Mexico. The Court felt that the rest of the resolution's wording was meant to validate any boundary asserted by Texas without
protest; thus, the State of Texas was created by Congress with a three-league maritime boundary (approximately 10.35 statute miles).

Argument were made that even if Texas entered the Union with a three-league offshore jurisdiction, from the moment of admission the boundary was limited to three miles by virtue of the U.S. foreign policy fixing the extent of the territorial sea at that point. The Court ruled, however, that boundaries were set by virtue of Congressional authority to admit States to the Union, not by virtue of the Executive power to determine this country's obligations to foreign states. While in certain circumstances the Executive did have rights to limit States' enjoyment of jurisdictional authority, those rights did not extend to fixing a boundary. The Court put forth no views on the effectiveness of a three-league boundary off Texas as against other nations, given the U.S. claim of only three miles. In settling the Texas claims the Court also recognized the State's unique position of being the only independent nation annexed into the Union.6/

Leasing Activity

The State of Texas exercises dominion over 2,428,537 acres of submerged lands in the Gulf of Mexico; these lands are divided into approximately 5,800 tracts for leasing
purposes.\textsuperscript{7/} The number of tracts is inexact as blocks will often be divided into four sectors for specific lease offerings, most often at the request of offshore oil and gas operators. The average size of offshore leasing tracts is 640 acres, while the legal limit is a three square mile block of 5,760 acres. The mapping system for the offshore is based on the Texas Plane Coordinate System extended from onshore.\textsuperscript{8/}

In 1984, just over half the Texas Gulf Coast submerged acreage was under active lease.\textsuperscript{9/} Due to the long history of activity offshore Texas and the high level of successful exploratory drilling, nearly every tract offshore has been leased at one point or another; some blocks have been leased numerous times. Many communities along Texas' 400 mile coast have experienced a significant level of activity over many years related to work offshore, among them: Houston, Galveston, Beaumont, Port Arthur, and Orange.\textsuperscript{10/}

All State lands off the Gulf Coast are leased under the authority of the School Land Board; the statute granting such authority, Texas Code Chapter 52 (Oil and Gas Subchapter A, 52.011), reads simply: "The School Land Board may lease to any person for the production of oil and natural gas: . . . the portion of the Gulf of Mexico within the jurisdiction of the State." No goals, guidelines, or restrictions on the leasing program are included in the Code.
The members of the School Land Board include: The Commissioner of the General Land Office, one citizen appointed by the Governor, and another citizen appointed by the State Attorney General. For many years the State's Governors and Attorney Generals sat on the Board themselves. The Commissioner of the General Land Office is elected in a Statewide race held every four years.11/

Prior to the issuance of a Notice of Bids for each sale the Board meets to approve the tracts to be offered, the minimum bids required, and the terms of the sale. The Board also meets on the day of each sale to open the submitted bids and review them for approval. Recently, the Commissioner of the General Land Office named a "Blue Ribbon Committee" to serve as a technical advisory board on leasing matters. The committee reports to the Governor and the General Land Office.12/

The General Land Office is the government agency responsible for conducting the State's leasing program; this includes not only lands under the authority of the School Land Board, but also onshore lands controlled by the Texas Department of Correction, the Parks and Wildlife Department, specific State hospitals and parks, the Department of Mental Health and Mental Retardation, and other State agencies.

The Land Office holds sales for offshore School Board lands twice a year, in the months of April and October. Results from recent sales are presented on Table 4. Sale
<table>
<thead>
<tr>
<th>Lease Sales</th>
<th>Tracts Offered</th>
<th>Bids</th>
<th>High Bids*</th>
<th>Acres Leased</th>
<th>Total Bonus</th>
<th>Average Bid per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 1985</td>
<td>610</td>
<td>186</td>
<td>157</td>
<td>82,083</td>
<td>23,235,958</td>
<td>283.08</td>
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<tr>
<td>October 1984</td>
<td>697</td>
<td>289</td>
<td>222</td>
<td>106,474</td>
<td>27,775,916</td>
<td>260.84</td>
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<tr>
<td>April 1984</td>
<td>581</td>
<td>176</td>
<td>156</td>
<td>80,052</td>
<td>17,525,052</td>
<td>218.92</td>
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<tr>
<td>October 1983</td>
<td>1,409</td>
<td>526</td>
<td>387</td>
<td>241,891</td>
<td>29,124,776</td>
<td>120.40</td>
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<td>October 1982</td>
<td>958</td>
<td>427</td>
<td>274</td>
<td>141,163</td>
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<td>April 1982</td>
<td>902</td>
<td>336</td>
<td>262</td>
<td>161,088</td>
<td>16,796,262</td>
<td>104.27</td>
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<td>October 1981</td>
<td>1,179</td>
<td>1,077</td>
<td>599</td>
<td>325,178</td>
<td>37,350,072</td>
<td>114.86</td>
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<td>April 1981</td>
<td>1,282</td>
<td>1,100</td>
<td>669</td>
<td>388,767</td>
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<td>1,258</td>
<td>815</td>
<td>500,892</td>
<td>44,983,509</td>
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<tr>
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<td>1,205</td>
<td>1,081</td>
<td>696</td>
<td>420,915</td>
<td>33,538,578</td>
<td>79.68</td>
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<tr>
<td>October 1979</td>
<td>1,610</td>
<td>702</td>
<td>548</td>
<td>359,736</td>
<td>25,199,109</td>
<td>70.05</td>
</tr>
<tr>
<td>February 1979</td>
<td>1,856</td>
<td>919</td>
<td>665</td>
<td>414,936</td>
<td>44,988,149</td>
<td>108.42</td>
</tr>
</tbody>
</table>

*These figures denote high bids accepted for lease award.

(Murphy Hawkins, Texas General Land Office, Austin, Interview held July 1985.)
offerings of other State lands are usually held separately.

Nominations for unleased and unencumbered State offshore tracts to be offered in a sale are accepted at any time from industry. Approximately four months prior to an April or October sale nominations for the upcoming sale are closed; nominations received subsequent to the closing are considered for inclusion in the following sale. Approximately two months prior to the sale date, the Land Office presents information on the nominated tracts to the School Land Board. The School Board approves the tracts to be offered, usually all those nominated, the systems for bidding, minimum bids, and other terms of the forthcoming sale. A sample set of terms and directives from a recent sale is presented in Appendix 2. Given the Board's approval, the Land Office prints and distributes an Oil and Gas Notice for Bids, which includes descriptions of the authority under which the sale will be conducted, the terms of the sale, location and ownership of the tracts, bidding systems to be used for each tract, environmental codes, and maps of the lands.

In 1984 the Commissioner of the General Land Office, acting with the concurrence of the other School Land Board members, set a fee of $100 for each tract nomination made by industry. This action was taken as at least a small effort to trim the number of nominations received by the Land Office, leading to an increase in competition for submerged
lands offered in a given sale and a decrease in scenery nominations (those made to mask offshore operators' true interests). The $100 fee, to date, is perceived as a success in limiting nominations to those where some real level of interest exists, according to Land Office officials. If a nominated tract is somehow encumbered or for some other reason cannot be offered in the next eligible sale, the fee is returned.

On the day of the sale the School Land Board meets in the Commissioner's offices and bids are opened. Later that same day bids are reviewed and awards of leases are approved by the Board. A successful bid must include a completed bid form, copies of which are distributed with the Notice for Bids; a check for the bonus bid; and a processing fee of 1.5 percent of the bonus bid amount. Checks included with an unsuccessful bid are returned.

The system developed in Texas, with its semi-annual sales, has operated over the past decade smoothly and efficiently. The regular schedule of sales and the nomination process has made State offshore lands readily available to industry on a relatively assured schedule. State leasing officials are confident that leasing will continue in the future under similar terms. Along with the introduction of nomination fees, the State has also moved in other ways over recent years to increase returns from public resources and better protect its environment. Other examples of these
efforts follow.

Cost Structure

Award of State leases in the Gulf of Mexico is based upon either high royalty rate or bonus bidding. Minimum royalty rates for State resources are set by law at one-eighth oil or gas produced and saved, or its value; but royalty rates in recent history have almost always been higher.17/

In 1984, along with the introduction of the $100 nomination fee for lease sales, a minimum bid system was put in place. Minimum bids for each tract offered are set by the School Land Board with the advice of the General Land Office. Factors weighed by the Land Office in determining their recommendations include: geologic data, the history of activity on the land, activity nearby, and perceived interest in the block.18/ Prior to initiation of the minimum bid system royalty rates were generally set at twenty-five percent and award of leases was based on high bonus bid.

Reviewing the terms of the April 2, 1985 Texas oil and gas lease sale, as related to the 282 tracts offered in the Gulf of Mexico, all but two blocks were leased based on high bonus bid with a fixed twenty-five percent royalty. With the set royalty, 113 tracts had minimum bids of $100 per
acre; 126 tracts had minimums of $200 per acre; 16 had minimums of $300; and 30 tracts had $500 minimums. The two other tracts were offered with a set bonus bid of $200 per acre and royalty rate bids were the basis of award with a minimum of twenty-five percent. All of the tracts offered in the Gulf had an annual rental rate, after the first year, of $10 per acre, and the leases' primary terms ran for five years.19/

If commercial production is initiated on an offshore lease and the payment of royalties begins, the lessee no longer pays rental fees on the acreage. Shut-in royalties are also prescribed in the oil and gas regulations. The lease for acreage where a shut-in well capable of producing oil or gas in paying quantities exists may be extended for up to five years through payment of shut-in royalties. The payment is set at double the annual rental provided for in the lease, but not less than $1,200 a year per well. If, during the shut-in period, oil or gas is produced on another lease from a well within 1,000 feet of the shut-in lease and any drainage from the shut-in reservoir is occurring, the right to extend the lease through shut-in royalty payments is voided.20/

The introduction of the nomination fee and minimum bid systems to the Texas offshore leasing process were the result of an review called for by the then newly elected Texas Land Commissioner, Garry Mauro. The new Commis-
sioner's concern was aroused by the comparison of Federal OCS average bonus bids to Texas bonus bid revenues from offshore lands. In the last five Federal Gulf of Mexico OCS nomination process lease sales held prior to 1983, the average bonus per acre was $2,119; in the Federal areawide lease sale held in the western Gulf during August 1983, the average bonus per acre was $668.21/ In the five Texas State offshore lease sales of Permanent School Fund lands held prior to 1983 the average bonus per acre was $103.22/

While these numbers are not entirely comparable (royalty rates on leased tracts varied widely between State and Federal waters, the Federal nomination sales included submerged lands from throughout the Gulf of Mexico OCS, and the Texas Permanent School Fund sales included some onshore lands), the wide difference in average bonus bids per acre is startling even when allowances are made for wide variations in oil and gas geological potential. Commissioner Mauro initiated a review of Texas leasing practices offshore upon his taking authority over the General Land Office in 1983; in the April lease sale of that year, no offshore tracts were offered.

In the October 1983 State sale, 1,409 tracts were offered and 526 bids were received; of these, 387 were high bids. From the high bids, 22 were rejected as insufficient; prior to this sale, State practice had been to accept all high bids in land sales.23/ The average bonus per acre of
accepted bids was $120. Following this sale, the nomination fee and minimum bid systems were implemented permanently.

In reviewing the results of Texas State lease sales before and after the imposition of nomination fees and minimum bids, a number of trends seem clear (see Table 4). The average bonus bid per acre has more than doubled, while total bonus revenues have not varied to any significant extent. The total number of tracts offered in individual sales has fallen, as has the number of high bids and total acres leased. So while the State has kept bonus revenues at a steady level, the acreage of lands leased has fallen significantly—leading to the conclusion that Texas is receiving increased returns on the more limited hydrocarbon resources it has recently been leasing.

It is possible, though, that with less acreage being leased, royalty revenues may begin decreasing in the future, as the lesser amounts of lands leased lead to a commensurate fall in production. Production rates, especially for natural gas, are very closely tied to market demands, however; therefore a number of factors, other than a decrease in leased acreage over a one and a half year period, are likely to effect royalty revenues in the future to a much greater extent.

In analyzing the leasing data available before and after the introduction of nomination fees and minimum bids, it must be recognized that many variables are affecting lease
sale results, and that the results over such a short period of time cannot define major, long-term trends. Three of the most significant factors affecting Texas offshore lease sale results in the 1980s, other than minimum bid and nomination fee requirements, have been the (1) worldwide oversupply of natural gas, which has greatly decreased prices in the U.S. since the collapse of an industry boom in 1981; (2) variations in the price of a barrel of oil, which have an inverse effect on demand for natural gas; and (3) introduction of areawide leasing on the Federal OCS, which has led to vast increases in leased OCS acreage in the Gulf of Mexico.

Severance taxes in Texas are prescribed in the State Natural Resources Code, Title 3, Subtitle 1; there are no production taxes as exist in Alabama. The severance tax on gas is 7.5 percent of market value at the mouth of the well, or 7.5 percent of the producer's gross receipts if the gas is sold for cash. For oil, the tax rate is 4.6 percent of the hydrocarbon's market value; there is a minimum tax of 4.6 cents for each barrel of 42 standard gallons of oil produced.

An ongoing issue in Texas concerning the jurisdiction of local authorities over State offshore development and their ability to tax offshore wells was resolved during 1983. In 1979, the City of Port Arthur, using its powers as a home rule city under Texas law, annexed a one-mile wide strip of the Gulf of Mexico extending out to the three-marine league
line. The area annexed included an oil production platform owned by the Superior Oil Company and the City made clear the fact that the annexation was undertaken simply to raise revenues. The City cited the loss of Federal Coastal Energy Impact Program funding, the high cost of public services to the offshore operators, the dislocation of a long-established shrimp fleet from scarce dock space, and other socioeconomic factors as justification for its actions. An ad valorem tax was placed on the tract Superior had leased from the State; in 1981 the local government's tax levy amounted to $775,000. Other home rule cities on the coast also moved to annex portions of the Gulf, including Galveston, Corpus Christi, and Crystal Beach.

Many of the arguments put forth by Texas coastal cities concerning the direct costs of offshore oil and gas activities to their communities are similar to arguments made at the national level by proponents of OCS revenue sharing between Federal and coastal State governments. Revenue sharing is seen by many as the most viable and direct means for easing conflicts over OCS development. Revenue sharing never became a serious political issue between coastal cities and the Texas State government, possibly because nearly all revenues go to the State's higher education system, so the issue, though most interesting, falls outside the scope of this study.

The State of Texas and Superior Oil brought suits to
block Port Arthur's annexation, but in March 1984, following a long series of rulings by lesser courts, the U.S. Fifth Circuit Court of Appeals ruled in the City's favor (Superior Oil v. City of Port Arthur, 82-2396). The U.S. Supreme Court dismissed an appeal. Following this decision, Port Arthur received the more than $3 million in taxes from Superior Oil that had been held in escrow pending final adjudication of the case.

Following Port Arthur's 1979 action, annexation became an important issue in the Texas State Legislature--as the threat to State offshore revenues was real and immediate. With cities able to tax offshore operators independently on properties anywhere in the State's Gulf waters, the industry argued that work would quickly shift to adjacent Federal OCS territories.

In 1980, the Legislature passed Senate Bill 1176 to prohibit general law cities from annexing further than one nautical mile into the Gulf; however, home rule cities, such as Port Arthur, were exempt from this limitation. In 1983 the Legislature went on to approve Senate Bill 551 authorizing home rule cities to annex out into the Gulf up to one marine league and tax operators in that area at 100 percent of the city's property tax rates. The new law also allowed home rule cities to set up industrial districts in the waters beyond one marine league out an additional 1.5 miles. In the industrial districts, home rule cities are
allowed to tax at a rate not to exceed 35 percent of property tax rates within the city. So while Port Arthur received $3 million in taxes from Superior Oil based upon its 1979 annexation, the State Legislature's 1983 actions barred the city from continuing to tax Superior.25/

Revenue Distribution

Severance taxes collected by the State are used, in part, to administer and enforce provisions of the Texas Code as related to oil and gas activities. One half of one percent of taxes collected are set aside in the State Treasury for this purpose, with annual appropriations approved by the State Legislature. Of the remaining severance taxes from State Gulf waters, one fourth are credited to the Public Free School Fund. The remaining three-fourths of the collected severance taxes go into the State's general fund.26/ According to the Texas Code, Chapter 52 (Oil and Gas), § 52.241, "Distribution of Funds. The proceeds arising from activities which affect lands belonging to the public free school or the permanent fund of the several asylums, shall be credited to the permanent funds of said respective institutions." Based on this section of the Texas Code, a total of more than $4.5 billion has been deposited in the School Fund over the years, the great portion of which has been collected from activity on State submerged lands. Of
the $4.5 billion in revenues, approximately $3.01 billion was from oil and gas royalties, while just under $1 billion was received in bonus bids.27/

Revenues from coastal cities' property taxes on offshore operators in the Gulf are collected and dispersed at the discretion of the local jurisdictions.

Post-Lease Regulation

The Texas General Land Office through the Coastal Division of its Land Management Program coordinates the dissemination of a great deal of environmental information on submerged tracts on a continuing basis. Through the Resource Management Recommendation Code Project, environmental codes are assigned to each submerged tract based on factors such as environmentally sensitive habitats, recreational values, archeological sites, hydrology, navigational safety, or other conditions that indicate the need for special planning prior to on-tract development. Representatives of the following agencies meet regularly to review and update the coding:

- Texas General Land Office
- U.S. Fish and Wildlife Service
- National Marine Fisheries Service
- U.S. Army Corps of Engineers
- Texas Antiquities Committee
Texas Parks and Wildlife Department

The assigned codes concern activities such as dredging, spoiling, drilling, time constraints on development work near beaches, and seismic work on State lands. In the Notice for Bids published prior to each sale, the assigned codes for each tract to be offered are printed, along with definitions and rationales for the codes, a key to the agency responsible for assigning each code to a given tract, and information on how to contact the agencies to discuss concerns. A booklet including all of this information for every submerged tract in Texas is also available and the Project has recently completed computerizing all of its data to ease access and allow updates and changes to take place more readily. For examples of coding data included in a recent Notice For Bids see Appendix 3.

The coding system, which is very simply a means for efficiently gathering and disseminating environmental information, was originally developed in 1972. In January 1985, a two-year, complete review and update of the codes was finished; this included the work of computerizing the data. The codes are for the use of offshore operators to aid in preventing permitting delays and unnecessary development costs. This, the Land Office states, is accomplished by industry knowing the concerns of each regulatory agency and incorporating this information in
pre-project design and planning.

In bold, capitalized letters at the head of the opening page of the Project's description, it states "The codes are seldom intended as absolute restrictions." The codes are guides to preventing serious damage or alterations to coastal and marine resources. To meet the goal of protecting these resources and also allow for energy development, negotiation between offshore operators and concerned agencies is encouraged. The introduction to the codes also states that tract development may go on unhindered if industry representatives can convince the concerned agencies that work can proceed without the impacts anticipated.

Work with unavoidable impacts has, in cases, been allowed to proceed following negotiations for mitigation. Agreements reached with the State have called for mitigation work improving areas approximately three times larger than the total resource area being impacted, so that there is a three to one recovery rate.

The State of Texas supports the Code Project in order to accomplish three goals.

First, the codes suggest operating procedures that encourage the protection of sensitive natural resources. Second, the codes assist potential bidders and lessees in developing plans that are likely to receive more expeditious approval from State and Federal agencies. Third, the codes provide greater predictability in the leasing process by somewhat reducing the uncertainties associated with the development of state-owned submerged land.
To accomplish these goals that will benefit (1) offshore operators, anxious to have their permits approved and limit the risk of costly delays; (2) government regulators, with various agencies working together to protect the environment in an organized fashion where each is aware of what the others are doing or not doing; and (3) citizens of Texas and adjoining areas, enjoying the results of energy development with a minimum of environmental disturbance, the coding system would appear to work efficiently and effectively.

Once a lease has been issued by the General Land Office and negotiations regarding environmental concerns have been concluded or waived, the environmental codes serve as the basis for stipulations. Enforcement of the stipulations is the responsibility of the Enforcement Division of the Texas Parks and Wildlife Department. The Department is governed by the Parks and Wildlife Commission made up of six members appointed by the Governor, with the concurrence of the State Senate, for overlapping six-year terms. Overall the responsibilities of the Department include, inter alia, regulation and management of the State's wildlife resources, and promotion and protection of persons and property in the operation of vessels and equipment on public waters.29/ In the oil and gas leasing process, the Department serves in an advisory capacity to the General Land Office.

The Enforcement Division of the Parks and Wildlife Department, through its conservation law officers, is
charged with responsibility for environmental regulation offshore in State waters. However, inspectors from the Texas Railroad Commission and U.S. Army Corps of Engineers who regularly survey platforms offshore and review operations' records, in practice, play a more significant role in ensuring that the stipulations included in permits are followed.

In addition to the tract specific stipulations included in leases issued by the General Land Office and enforced by the Parks and Wildlife Department, the General Land Office issues permits for geological and geophysical surveys on State lands. The Office also promulgates general rules and regulations to govern specific aspects of all oil and gas operations in State waters. There are no set restrictions regulating how close work can be conducted to shorelines, but localities may stipulate their own limitations within areas of their offshore jurisdiction. For example, Galveston does not allow work within one and a half miles of its shore and Corpus Christi sets a boundary for excluding oil and gas activity two miles out.

The Texas Railroad Commission, made up of three elected members serving overlapping six-year terms, also regulates oil and gas operations within the State. Rules cover the protection of water quality, disposal of operations-related wastes, standards for casing and plugging wells, and monitoring, survey, and reporting requirements. Commission
permit and approval programs include well permits, disposal by injection of salt water into productive and non-productive oil and gas formations, general permits for injection of fluids into production oil and gas reservoirs, pipeline permits, and approvals for plugging abandoned or non-producing wells. In addition, the Commission issues exemptions allowing for the sale of natural gas from public lands outside the State. Under Texas Code, the Commission, prior to allowing the sale of gas outside Texas, is required to first establish that all needs for gas within the State are met.

For the offshore operator seeking regulatory approval for work on a newly awarded State lease in the Gulf, the Railroad Commission permit and approval requirements for operations are not seen as a problem. The requirements are, for the most part, very technical and the Commission processes many applications from throughout the State in a quick and relatively routine fashion.

Other State agencies with regulatory authority over offshore operations within the three marine-league boundary include the Department of Water Resources, which has responsibility for issuance of National Pollution Discharge Elimination System permits and regulates oilspill prevention and cleanup projects; the Air Control Board, which issues air quality permits; and the Historical Commission, which issues permits for the disturbance of archeological and
vice, the State Parks and Wildlife Department, and the Texas General Land Office; many of these same representatives are involved in the Land Office's environmental coding project.

The Corps generally uses the environmental codes from the State's leasing program as the basis for its permit stipulations. If negotiations or mitigation agreements have been concluded that allow specific codes to be waived, the specific restrictions are simply left off the Corps permit. Given the frequency of the Corps' review meetings and the homogeneous nature of the Committees developing codes and making recommendations concerning Corps permits, the process usually results in very little delay and the issuance of the required permits occurs in a timely fashion.

offshore operators, understanding the Corps' practices, often simply negotiate with the representatives of the concerned agency that first called for a restriction code on a given tract when, in fact, they are seeking permit approvals from the Corps.

As the day to day routine has developed, the General Land Office leaves the enforcement of stipulations to the Corps except in the case of restrictions on geological and geophysical survey work. The Corps in effect serves as an important environmental permitting and enforcement arm of the State. Given the large number of permits processed and the detailed environmental data available to all concerned from the initiation of the leasing process through codes,
historical sites. These various requirements are also not perceived as difficulties for offshore operators anxious to initiate work in State waters, once the concerns put forth in the environmental codes have been negotiated.

The final agency with significant responsibilities for the regulation of offshore activity in Texas waters is the U.S. Army Corps of Engineers, as set out under Section 10 of the River and Harbor Act of 1899 and Section 404 of the Clean Water Act. As the day to day routine of environmental permitting has developed for work in Texas waters, the Corps has become the crucial permitting and enforcement authority. Under Corps regulations, each pending permit is reviewed through the agency's public interest review procedures and Corps staff considers the proposed activities effects on conservation, economics, flora and fauna, recreation, navigation, water quality, and other factors. The general environmental impact statement prepared for review of oil and gas development activities in Texas coastal waters is also utilized.

In practice, once every two weeks members of an inter-agency committee are called to a meeting in Galveston by the Corps to review Section 10 and Section 404 permits awaiting approval. There are nineteen members on the review committee, but rarely do they all attend meetings. Regular representatives to the gathering come from the U.S. National Marine Fisheries Service, the U.S. Fish and Wildlife Ser-
the system works quickly and efficiently.

Neither any Texas State agencies nor the Army Corps of Engineers fund any long-term continuing environmental research or baseline data gathering studies for use in making leasing program policy or specific rulings. Work is conducted by Texas universities and other agencies to study coastal waters, but this is not done in conjunction with the leasing program or with any clear coordination.

Summary

Three most significant conclusions stand out in considering the offshore oil and gas leasing and regulatory system developed by the State of Texas since 1922 when the first lease was awarded in State coastal waters: (1) Leasing and development takes place in an orderly, predictable, and timely fashion; (2) the State has recently taken action to increase competition for and revenues from offshore resources; and (3) the environmental coding system for making specific concerns on given tracts clear works efficiently and effectively in making valuable information available to the offshore industry, government regulators, and the public.

With semi-annual sales offering almost all the acreage in which offshore operators express interest, the State makes submerged lands available in a timely fashion. With
the minimum acceptable bid on any tract published publicly, the existence of an established routine for pre-sale activities and award of leases, and no history of significant conflict or opposition to the offshore development program, submerged lands are also leased in an orderly and predictable way.

The introduction of a $100 nomination fee for submerged tracts, at least in a limited way, has cut down the number of nominations received by the Texas General Land Office for a given sale, resulting in increased competition for tracts and a decrease in scenerny nominations. The introduction of a minimum acceptable bid system at the same time has resulted in the doubling of average bonus bids per acre. While the total acreage offered and leased has decreased on average, total bonus bid revenues have remained relatively steady. The average bonus per acre received in recent years on Federal OCS tracts in the Gulf is significantly more than the average received by the State, even when looking at results with Texas' minimum bids in force and the areawide leasing process in use for OCS lands. However, the royalty rates in Texas waters, a greater source of revenue for the State than bonus bids, generally are set at twenty-five percent or more, compared to Federal rates averaging 16.67 percent. In addition, Texas has severance taxes on production of oil and gas where OCS tracts do not.

The most unique and intriguing facet of the Texas
leasing and regulatory system is use of the environmental coding system. The Resource Management Recommendation Code Project, which coordinates the concerns of all involved regulatory agencies, makes available to the offshore operators, from the outset of their interest in a given tract, complete and timely data on the environmental problems to be considered in exploration and development work on the specific site. Guidelines for planning and operations that would allay the concerns of regulatory agencies are included, as is information on which agency called for inclusion of the code stipulation and who to contact at that agency to discuss the concern or alternative operating procedures.

From the point of view of the offshore operator, all of the environmental concerns of relevant parties are available before any capital has been invested in preparing to bid on any Texas submerged tract, thus the risks of future opposition to work are known. A good deal of the environmental planning information that will be required prior to initiating exploration is also available in the codes, as is data on sources of information for further details on specific environmental questions.

From the point of view of government regulators, they are aware, through the codes and the process of updating them, of what other agencies' concerns are in given areas, who exactly is dealing with which concerns, and where the
gaps in knowledge are on a very specific basis.

From the citizen's point of view, offshore operators are able to develop hydrocarbon resources more expeditiously and inexpensively for the public's use, government regulators are able to coordinate their efforts to better enforce the laws of the land, and in the end, hydrocarbons are produced under reliable environmental safeguards that are understandable to the general public.

The State of Texas does not have a perfect leasing and regulatory program for its offshore oil and gas resources. Among other problems there is very little baseline environmental data being prepared or research going on as concerns oil and gas in the coastal zone; the State is almost entirely dependent on the Corps of Engineers for enforcement of environmental stipulations in its waters; and minimum bid requirements would still appear to be too low relative to revenues received by offshore leasing programs in other jurisdictions. The Texas program is, however, basically a very good one and one from which other States and the Federal government might learn a great deal.
CHAPTER III NOTES

1/ Texas Mid-Continent Oil and Gas Association, "Facts About Texas Oil and Gas" (August, 1984) (typewritten). Reference is for data throughout the paragraph.


4/ I Laws, Republic of Texas, 133 (1836).

5/ S. Stat. 797 (1845).


12/ Miller and Rinkel, Oil and Gas Leasing in Florida, p. TX-1.

13/ Chris Macomb, Texas General Land Office, Austin, Texas, interview held August 1985.


16/ Ibid.
17/ Miller and Rinkel, *Oil and Gas Leasing in Florida*, p. TX-14.

18/ M. Rumsey, Texas General Land Office, Austin, Texas, interview held August 1985.

19/ Texas, General Land Office, "Oil and Gas Notice for Bids" (Austin, January 1985) (typewritten), pp. 31-36.

20/ Miller and Rinkel, *Oil and Gas Leasing in Florida*, p. TX-16.


25/ Entire discussion of municipal offshore annexation from:
   (1) Ross Wilhite, Director of City Planning, Port Arthur, Texas, interview held March 1984;

26/ Miller and Rinkel, *Oil and Gas Leasing in Florida*, p. TX-19.

28/ Entire discussion of the Texas Environmental Code from:
   (1) Sally Davenport, Environmental Specialist, Texas General Land Office, Austin, Texas, interview held July 1985;
   (2) Texas, General Land Office, "Resource Management Code Project" (Austin, October 1984) (typewritten); and
   (3) Miller and Rinkel, Oil and Gas Leasing in Florida, p. TX-21.


30/ Texas, Railroad Commission, Oil and Gas Division, Texas Oil and Gas Conservation Laws (Austin, June 1983).

31/ Erwin Glasser, Offshore Operations, Exxon USA, Houston, Texas, interview held June 1985.


33/ Miller and Rinkel, Oil and Gas Leasing in Florida, pp. TX-31-32.

34/ Glasser, interview June 1985.
CHAPTER IV
THE FEDERAL PROGRAM

With passage of the Submerged Lands Act of 1953 and the Outer Continental Shelf Lands Act of the same year, the Federal government established its authority over OCS resources. From that time through 1984, DOI conducted eighty-six lease sales for offshore oil and gas minerals. In the course of those offerings, 333 million acres were put up for lease; 21,073 bids were received for land rights; more than 38 million acres were leased; and in excess of $51 billion was raised in bonus bid revenues for the Federal treasury. The cumulative total for oil and gas condensate production at the close of 1983 was more than 6.3 billion barrels; for natural gas the total stood at over 62 billion MCF (thousand cubic feet). Bonus bids, royalties, rentals, shut-in payments, and other miscellaneous revenues brought total collected revenues from the OCS oil and gas program to over $68 billion as of 31 December 1983.

A more ominous facet of the OCS oil and gas program, which has grown in importance during recent years as the nation's need for OCS resources as increased, has been a record of unmet expectations and growing frustration. This study focuses on the political and legal problems that have contributed to the program's poor record, rather than the resource, technological, or economic limitations that to
varying extents may also be involved. Further discussion of the problematic history of the program is included in the Introduction to this study; the current status and processes of the Federal government's OCS leasing and regulatory program are the subject of this chapter.

Federal Jurisdiction

On September 28, 1945, President Truman issued Presidential Proclamation Number 2667, unilaterally declaring that "... the Government of the United States regards the natural resources of the subsoil and seabed of the continental shelf beneath the high seas, but contiguous to the coasts of the United States ... subject to its jurisdiction and control."4/ The 1958 Geneva Convention on the Continental Shelf later clarified the continental shelf doctrine and established international definitions, but it was the Truman Proclamation that first established U.S. interest and jurisdiction over the submerged resources of the shelf.5/

continental shelf. The U.S. in 1945 brought the first legal action to establish Federal rather than State control offshore; the suit against California charged that the State had no authority to grant leases for oil and gas development beyond the limits of its inland waters. The Court found, as concerned the three mile marginal sea off the U.S. coast, that "National interests, national responsibilities, and national concerns are involved. The problems of commerce, national defense, relations with other powers, war and peace focus there. National rights must therefore be paramount in that area."6/ With the Supreme Court's decisions in the Submerged Lands cases, the coastal States turned from the legal process to political actions in their efforts to establish dominion over the waters off their shores.

As early as 1937, Congressional legislation had been sought to establish coastal State sovereignty over the marginal seas. On May 22, 1953, when President Eisenhower signed the Submerged Lands Act (Public Law 83-31), he granted such powers to the coastal States. The title of the act reads:

To confirm and establish the titles of the States to lands beneath navigable waters within State boundaries and to the natural resources within such lands and waters, to provide for the use and control of said lands and resources, and to confirm the jurisdiction and control of the United States over the natural resource of the seabed of the Continental Shelf seaward of State boundaries.7/

The Act went beyond simply granting States title to

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submerged lands and settling the "Tidelands Controversy" that had grown into a significant national issue; it gave statutory confirmation to the jurisdiction and control of the U.S. over the resources of the continental shelf subsoil and seabed seaward of state boundaries, as asserted in the 1945 Truman Proclamation.8/

Subsequent to passage of the Submerged Lands Act, the Supreme Court on two occasions has rendered decisions regarding States' offshore sovereignty. On March 15, 1954, the Court upheld the constitutionality of the Submerged Lands Act, ruling that Congress had the right to dispose of lands belonging to the United States without limitation. The State of Alabama originally brought the suit arguing that (1) the submerged lands and natural resources held as public lands were in trust for all States, and thus could not be given to just a few, and (2) that the Act violated the equal footing clause guaranteeing equal rights to all States. The second argument was based on the facts that (1) resources offshore some States were known to be much greater than those off others and (2) that some States had boundaries of three marine leagues offshore while others only had three miles. Thus the Act, it was argued, did not treat States equally. Rhode Island brought a similar suit, which the Court settled in the same decision. The Justices stated in their ruling that under Article IV, Section 3, clause 2 of the U.S. Constitution, Congress could dispose of public
lands at its own determination and that it was not up to the Courts to judge how that trust was to be administered.9/

The second significant case regarding the Submerged Lands Act was U.S. v. Louisiana, Texas, Mississippi, Alabama, and Florida (363 U.S. 1, 121 (1960)). The U.S. brought this suit originally against the State of Louisiana in 1955 to establish the Federal government's jurisdiction over submerged lands and minerals from beyond the three mile line out to the edge of the continental shelf. The U.S. also sought an accounting of Louisiana's revenues from those lands from June 5, 1950 forward (the June 5, 1950 date marked the Supreme Court's ruling in the Louisiana and Texas cases establishing Federal authority beyond States' inland waters (as discussed previously)). The Court, after preliminary proceedings, moved to include all the Gulf coast States in the case, as it believed the interests of each were involved.

The Court's decision, handed down on May 31, 1960, held that Texas and Florida rightfully had claims to submerged lands out to a three marine league boundary, based on the territorial limits they claimed at the time of their admission into the Union.

The Court went on to establish the seaward boundaries of Louisiana, Mississippi, and Alabama at three miles and ruled that the States were accountable to the Federal government for revenues earned from lands beyond these established
boundaries subsequent to the 1950 decision. The Justices in coming to their decision held a variety of views, as evidenced by the six opinions written.101

The most recent action pertaining to the definition of U.S. jurisdiction over submerged lands and minerals was the March 10, 1983 Presidential Proclamation declaring a 200 nautical mile EEZ for the U.S. Within that zone, the President proclaimed that the U.S. had, inter alia, "... sovereign rights for the purpose of exploring, exploiting, conserving, and managing natural resources, both living and non-living, of the seabed and subsoil and the superjacent waters. ..."11/ The proclamation of a 200 mile EEZ is in keeping with the articles of the Third United Nations Convention on the Law of the Sea and would seem to be in line with customary law regarding nations' offshore boundaries.

So at this time, U.S. jurisdiction over submerged lands and minerals is established as extending from the seaward boundaries of the coastal States to the edge of the 200 nautical mile EEZ (as measured from coastal baselines) or to the outer edge of the continental shelf, whichever boundary is furthest.

Leasing Authority

As a corollary to the Submerged Lands Act, Congress passed in the same session the Outer Continental Shelf Lands
Act of 1953 (OCSLA). The OCSLA gave the Federal government authority to lease OCS lands for oil and gas development. The Act granted broad authority and responsibilities to the Secretary of Interior and focused primarily on the need to develop OCS resources.\textsuperscript{12}

For twenty-five years the Submerged Lands Act and OCSLA remained intact, unamended, as development on the OCS was limited in scope, involved significant levels of activity only in the Gulf of Mexico and off Southern California, and aroused little attention. The 1969 Union Oil blowout in the Santa Barbara Channel off California and the 1973 OPEC oil embargo led to radical changes in the static OCS program. In the early 1970s, two vital national concerns—environmental protection and energy independence—put national priorities in turmoil and left the OCS development program in a political limbo. The same dialectic also revealed itself early on through significant conflicts in purposes within the statutory and regulatory framework through which increasing OCS leasing activity would proceed.\textsuperscript{13}

In 1974, the U.S. Senate passed the first legislation to amend the OCSLA; it was not until 1978, however, that both houses of Congress enacted bills providing new guidelines for OCS activity. Congress, through the OCSLA Amendments of 1978 (OCSLAA), attempted to balance competing national concerns—concerns that continue to plague the program today. Numerous Congressional committees were involved in the
legislation's development, many on-site investigations and hearings were held, other nations' offshore management policies were reviewed, and the amendments were the subject of extensive floor debate.\textsuperscript{14/} The legislation developed out of this activity had ten basic purposes:

1. Declare a national policy for OCS development.
2. Improve provisions for lease administration.
3. Require the submission by the lessee of an exploration plan, and a development and production plan.
4. Revise the bidding system.
5. Provide coastal states with an increased role in Federal OCS decisions.
6. Provide for an OCS information program.
7. Provide for safety standards and enforcement mechanisms.
8. Establish an Offshore Oil Spill Pollution Fund.
9. Establish a Fisherman's Contingency Fund.
10. Amend the Coastal Zone Management Act of 1972 to include a coastal energy impact program.\textsuperscript{15/}

While other laws and regulations are applicable to the OCS leasing and regulatory program, the OCSLAA provides the fundamental framework and guidelines through which the Secretary of Interior governs offshore oil and gas activity today. The rest of this chapter will outline how the Minerals Management Service, within the Interior Department,
currently carries out the Secretary's responsibilities under the OCSLAA for implementing the OCS leasing system and offshore operating regulations.

Lease Schedule

Pursuant to Section 18 of the OCSLAA, the Interior Department published in 1978 regulations establishing procedures for the preparation, maintenance, and periodic review of a five-year OCS oil and gas leasing program. The preparation and approval process for a five-year plan proceeds over a two-year period. Since enactment of the 1978 Amendments, there have been two five-year programs, and a third is now in preparation for the period of late-1986 through late-1991. The tentative schedule for the program's development is shown in Figure 4.

The Interior Department, in the past, has used the five-year program development process as an opportunity to restructure and make other lesser adjustments to its leasing system. It was through the July 1982 five-year OCS leasing schedule that the areawide leasing process and other streamlining procedures were introduced—the areawide process sought to offer all unleased and unencumbered tracts in every sale held in each planning area, rather than offering only selected or nominated tracts.

The first step in the lease schedule preparation process
**NEW 5 - YEAR OCS PROGRAM TIMELINE**

Schedule for Development of Program

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<th>1984</th>
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<tr>
<td>Solicit Comments and Prepare and Distribute Draft Proposed Program</td>
<td>Comment Period</td>
<td>Prepare and Distribute Proposed Program</td>
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</tbody>
</table>

**E I S Schedule**

| Preliminary EIS Data Gathering | Scoping Comments | Prepare and Distribute Draft EIS | Comment Period | Complete Final EIS |

is a public request for suggestions and information, as published in the Federal Register. Letters to the coastal State Governors and interested agencies are also sent. Comments are called for regarding the geographical, geological, and ecological characteristics of the broad areas under consideration; other uses of the resources and space of the OCS; identification of areas of environmental sensitivity and marine productivity; the technological feasibility of, time periods required for, and interest in OCS exploration and development; and applicable portions of the States' CZM programs to OCS oil and gas activity. The comment period is open for forty-five days; in preparation for the third five-year program, over 60 comments were received by MMS.

While at numerous stages throughout the OCS leasing and regulatory process the MMS makes special requests for information and comments from States and the public, it is important to remember that anyone may comment to MMS at any time on the agency's activities. Though the Service specifically requests information at required or convenient points within the framework of its programs, it remains responsible to the people and States at all times and must always respond to comments about its program.

Following the receipt of comments and information from its initial request, the MMS conducts analyses as required by Section 18 of the OCSLAA and prepares a draft proposed
program for review and approval by the Interior Secretary. The draft proposal is submitted for comments to coastal State Governors and a notice of availability of copies is published in the Federal Register. The comment period is open for sixty days, and all comments submitted within the proper period by Governors must be responded to by the Secretary in writing.

With comments on the draft proposal in hand, a proposed program is prepared. When completed, it is sent to coastal State Governors, Congress, and the U.S. Attorney General; a notice of public availability is also published in the Federal Register. The proposed program has a ninety-day comment period.

Concurrent with preparation of the five-year program, an EIS for the schedule is readied. As part of public participation in the EIS process, comments are called for and public hearings are held. The draft EIS is published at the same time as the proposed program.

Based on consideration of all comments received, the analyses performed by MMS, and the EIS, the Secretary defines the proposed final program. Once completed the program is submitted to the President and Congress. The submission must also include reasons why specific comments of the Attorney General, or State and local governments, were not accepted. Sixty days following Presidential and Congressional notification, the Secretary may approve the
Lease Sales

For the purpose of leasing, in the June 1982 final five-year OCS oil and gas leasing program, the waters off the continental U.S. and Alaska were divided into twenty-four planning areas and over the course of the five-year period, forty standard sales were to be held. The Gulf of Mexico OCS region was divided into three planning areas with annual areawide sales to be held in the Central and Western Planning Areas and biennial sales scheduled for the Eastern Gulf—a frontier area that has seen little OCS activity.

Each of the sales off the continental U.S. had a set preparation schedule proceeding over a twenty-three month period. For sales off Alaska pre-sale activities took an additional three months, as more time was allowed for EIS preparation and comments. The sale schedule, as published in June 1982, has been altered throughout the five-year period to a significant extent. For various reasons, the majority of sales in the original schedule have been delayed; examples of causes include further consultation with affected coastal States, litigation, reassessment of industry interest, and necessary additions or alterations to EISs. In addition to the delays, five scheduled sales have been canceled. Changes to the five-year schedule are noted
on the tentative milestones schedule for future sales published periodically by MMS.

There are essentially ten major steps in the Federal OCS pre-lease process; the normal schedule for these steps is shown in Table 5. A flow diagram of the process is presented in Figure 5. The first step in the preparation of an OCS lease sale is the identification of areas of hydrocarbon potential in the given planning area. The identification is based on data found in a sale specific geology report prepared over a six-month period prior to the area identification. The geology report includes the locations of areas of hydrocarbon potential and a description of the environmental geology on an areawide basis; it is a generalized, scientific document.20/

At least two months following the identification of areas of hydrocarbon potential, MMS publishes in the Federal Register a call for information and notice of intent to prepare an EIS. The call for information is the first formal step in the pre-lease process as identified in 30 CFR 256, 23-25 subpart D. The call is issued for a very broad area, usually several million acres. Over a 45-day comment period, potential bidders are asked to identify their areas of interest; while States and other concerned parties may identify areas they believe should be excluded or only leased under special conditions. Conflicts or concerns related to affected States' CZM programs are also to be
### Steps in Offshore Leasing

<table>
<thead>
<tr>
<th>Step Description</th>
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<th>Alaska</th>
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<tr>
<td>Identify Area of Hydrocarbon Potential</td>
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<td>Call for Information</td>
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<tr>
<td>Publish Notice of Intent</td>
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<td>To Prepare an EIS</td>
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<td>Area Identification</td>
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<td>Draft Environmental Impact Statement</td>
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<td>Public Comment Period</td>
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<td>Final Environmental Impact Statement</td>
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<td>Governors Comments</td>
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<tr>
<td>Bid Review</td>
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<td>27</td>
</tr>
<tr>
<td>Lease Issued</td>
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</table>

Figure 5. Preparatory Process for an OCS Lease Sale. (U.S., Department of the Interior, Minerals Management Service, "State Consultation Under the OCS Lands Act Sections 18, 19, and 25," December 1984.)
identified.

The notice of intent to prepare an EIS initiates the "scoping" process and public assistance is invited in identifying significant issues and alternatives to be considered in the EIS. Under the National Environmental Policy Act of 1969 (NEPA) (Public Law 91-190), EISs must be prepared for all OCS lease sales.

While the call for information occurs nearly two years prior to a sale and covers millions of acres and many thousands of tracts, it is to industry's benefit to respond as specifically as possible with its interests in given tracts. If industry does not make its interests known at this very early stage, but State or other parties concerns over specific tracts are strong, MMS may decide to defer those areas where concerns are high from further consideration for leasing. This situation puts an onerous responsibility on offshore operators to be well prepared with their research and to have identified areas where they are interested in bidding more than two years prior to the sale. This also creates a situation where small independent operators often cannot afford the upfront investment necessary to participate in the process until some areas have already been deferred from the sale; thus the major oil companies are the "voices of industry interest" heard in the significant early stages of pre-lease activity.

Approximately four months after the call for information
is published, the MMS issues the area identification for the sale. The area identification announces the parts of the planning area on which the EIS process will focus and that will be considered for leasing. Areas are deleted from further analysis at this point if significant multiple use conflicts are apparent and the potential for hydrocarbon discovery is low. The review leading to these early deletions includes evaluation of the comments received from the call, the past leasing history of the area, environmental resources, multiple use conflicts, and resource estimates. During this analysis period, MMS also consults with the Fish and Wildlife Service and the National Marine Fisheries Service, as regards biological resources; the U.S. Coast Guard, concerning navigational safety conflicts; and one of the six committees set up by MMS to advise the Service on regional issues and concerns--the Regional Technical Working Groups (each OCS region has a Group except for the Atlantic region which has three).

In addition, negotiations are conducted with the Department of Defense and the National Aeronautics and Space Administration, and areas of joint-use or exclusive-use are defined offshore. In certain OCS regions, the military has sought to severely restrict oil and gas development where it might limit naval or other operations. Currently, exploration work in nearly the entire Eastern Gulf of Mexico OCS Planning Area has been restricted to allow for Navy aircraft
coming year. In the 1980s, the size of each of these publications has varied between 474 and 752 pages; also included are a dozen or more full color plates. With so many of these documents produced, each covering the same basic subject, the EISs vary little from draft to final copy or from year to year.

There are a great number of problems with the EIS process as structured by Congress and the courts; very few of which have to do specifically with the OCS oil and gas leasing program. The large resources the MMS invests in publishing two of these documents each year to cover area-wide sales in the Gulf of Mexico make clear the problem, however. These huge documents assess the environment of a vast region in general terms that are often repeated over and over each year. It is questionable how much information the documents provide to industry operators planning projects on specific tracts, State or local planners trying to judge impacts in their localities, concerned citizens anxious about projects off their coveted shoreline, or, worst of all, Federal policy makers dealing with controversial issues related to lease sales for whom they are prepared.

Testimony before the House of Representatives Subcommittee on Oceanography on April 2, 1985 by Donna Black, representing the American Petroleum Institute, made clear what little use EISs are to industry. Ms. Black, speaking
for industry interests in the Federal/State consistency debate, argued that Federal OCS sales should not be required to agree with State coastal zone management plans because too little environmental information is available prior to lease sales. Ms. Black stated that only after the industry had studied certain tracts specifically could environmental data be provided as to the effects of exploration or development on the planning area. While EISs are prepared for government policy makers rather than offshore operators, if the documents were effectively providing information on specific environmental impacts to policy makers, that information should be available to others through the public documents. The impact statements fulfill legal and bureaucratic requirements at a high cost; Ms. Black's statements make clear that they are not of great use to industry and that candor brings into question their utility to the Federal policy makers they are prepared to serve.

Scheduled for issue approximately one month after publication of the final EIS, the proposed notice of sale informs the public of areas that are proposed for sale, procedures and methods of bidding, proposed lease stipulations, and measures to mitigate potential adverse impacts. Along with publication of the notice of sale in the Federal Register, the Governors of affected States are sent copies. The Governors have sixty days to comment on the size, timing, or location of the sale. If specific comments are
delivered to the Secretary of the Interior within the com-
ment period and they represent a reasonable balance between
national and State interests, the comments are to be ac-
cepted. Rationales as to the Secretary's determination of
national versus State interests are to be forwarded to the
responding Governors in writing.

Thirty days before the sale is to be held, and after the
Governors' comments have been considered, the Secretary of
Interior issues a notice of sale. The notice is published
in the Federal Register and includes the date, timing, loca-
tion, blocks to be offered, terms, and conditions of the
sale.

On the day of the sale, the sealed bids submitted are
opened publicly and read. Following the sale, high bids on
tracts are assessed by the MMS Regional Office conducting
the sale to assure receipt of what MMS determines to be fair
market value. Within ninety days, bids are accepted or
rejected and leases are awarded. Leases on the OCS are let
in most cases for five-year primary terms. In certain
cases, leases have longer terms, but include additional
stipulations; examples are leases awarded for tracts in 400
to 900 meter water depths where the primary term is eight
years, or in depths greater than 900 meters, where leases
are awarded for ten years.
Cost Structure

As set out in the OCSLAA, the Secretary of Interior is authorized to grant to the highest responsible qualified bidder or bidders, oil and gas leases for any unleased and unencumbered OCS lands. Also set forth in the OCSLAA:

The bidding shall be by sealed bid and, at the discretion of the Secretary, on the basis of--

(A) cash bonus bid with a royalty at not less than 12 1/2 per centum fixed by the Secretary in amount or value of the production saved, removed, or sold;

(B) variable royalty bid based on a per centum in amount or value of the production saved, removed, or sold with either a fixed work commitment based on dollar amount for exploration or a fixed cash bonus as determined by the Secretary, or both;

(C) cash bonus bid, or work commitment bid based on a dollar amount for exploration with a fixed cash bonus, and a diminishing or sliding royalty based on such formulae as the Secretary shall determine as equitable to encourage continued production from the lease areas as resources diminish, but not less than 12 1/2 per centum at the beginning of the lease period in amount or value of the production saved, removed, or sold;

(D) cash bonus bid with a fixed share of the net profits of no less than 30 per centum to be derived from the production of oil and gas from the lease area;

(E) fixed cash bonus with the net profit share reserved as the bid variable;

(F) cash bonus bid with a royalty at no less than 12 1/2 per centum fixed by the Secretary in amount or value of the production saved, removed, or sold and a fixed per centum share of net profits of no less than 30 per centum to be derived from the production of oil and gas from the lease area;

(G) work commitment bid based on a dollar amount for exploration with a fixed cash bonus and a fixed royalty in amount or
value of the production saved, removed, or sold; or
(H) subject to the requirements of paragraph (4) of this subsection, any modification of bidding systems authorized in subparagraphs (A) through (G), or any other systems of bid variables, terms, and conditions which the Secretary determines to be useful to accomplish the purposes and policies of this Act, except that no such bidding system or modification shall have more than one bid variable.21/

Paragraph (H) opens the bidding process to a wide variety of possible systems; such new systems must, however, be implemented in consultation with the Secretary of Energy and submitted to Congress for thirty days review prior to use. In the actual operation of the OCS leasing program, on an experimental basis, a small number of leases have been awarded with 12 1/2 or 33 1/3 percent royalty rates and some others let under profit share payment plans or sliding scale royalties, but the vast majority of leases have been awarded using 16 2/3 percent fixed royalties with variable bonus bids determining lease award.

In May 1983, the U.S. General Accounting Office (GAO) published a report, at the request of the U.S. House of Representatives' Government Operations Committee, on use of alternative bidding systems as required under OCSLAA. Approximately forty percent of the leases offered by MMS between 1978 and 1983 utilized alternative bidding systems. One percent of the leases awarded during this period had a fixed royalty rate of 33 1/3 percent with bonus bid. The
GAO found that among the ten alternatives tested, three initially "had a clear edge over the traditional cash bonus bid, fixed 16 2/3 percent royalty rate system in increasing both company participation and competition in OCS lease sales."22/ The use of a 33 1/3 percent fixed royalty rate was one of the three alternatives found to have positive results, with increased participation and competition, and similar bonus bids received.

The GAO report went on to recommend that Congress amend the OCSLAA "to provide for continued use of alternatives . . . for another 5-year period.23/ The GAO determined that additional time and testing were needed to get a complete picture of results from alternative systems, especially as to how the varying alternatives impacted later exploration and development on the OCS.

The Interior Department replied to the GAO report in September 1983, objecting to many of the report's conclusions and recommendations. Questions raised by DOI included those related to differing definitions of alternative leasing systems, faulty methodology, conclusions based on simple, short-term trends, and varying approaches to determining effects on exploration and/or development offshore. Specifically, DOI felt there was no need for Congress to mandate the continued testing of alternative bidding systems as the Department planned to consider alternative systems for each sale in any case.24/
Assessing the advantages and disadvantages of bonus bid based leasing systems in economic terms, their virtues are that (1) production is kept in alignment with socially optimal levels, (2) the most efficient firms are selected, and (3) the program is relatively easy to administer. Problems include (1) if competition in bidding is not effective (as has been argued by critics of the areawide leasing system) the lessor may not capture full economic rents and (2) risk-adverse bidders may lower their bid levels to allow for a risk premium.25/

In considering how this emphasis on bonus bids has affected the OCS leasing program to date, the most revealing fact is that sixty-nine percent of lease revenues (other than taxes) are bonus bid monies.26/ As Federal revenue from the OCS program in any given year is so closely tied to bonus bid revenues, pressures to raise revenues immediately translate into pressures to lease more lands. One study completed by DOI predicted that doubling royalty rates from 16 2/3 to 33 percent would reduce bonus bids by 25 percent.27/ There are numerous arguments for and against increasing royalty rates for oil and gas production. To this date, however, the Interior Department has taken little action towards significantly raising revenues through higher royalties; rather, ever increasing amounts of OCS acreage are offered to raise revenues through bonus bids.

Dependent on bonus bid monies, the program's revenue is
also highly dependent on the Gulf of Mexico OCS. In the Gulf region, mainly offshore Louisiana, over 99 percent of natural gas production and 96 percent of all oil production on the national OCS has occurred. Thus the Gulf of Mexico region has accounted for 77 percent of bonus revenues, 97 percent of royalties, and 79 percent of all rents received by the Federal government from all the OCS. 28/

In addition to bonus bid and royalty revenues, the Federal government charges annual rental fees for OCS lands of $3 per acre; there are also fees from shut-in reserves, minimum royalty payments and other minor miscellaneous sources. The Federal government has no production or severance taxes on OCS resources.

Revenue Distribution

During fiscal years 1971 through 1983, a total of $57.315 billion has been distributed from OCS revenues. Of this total, $49,808 billion has gone into the U.S. Treasury's general funds; $6.683 billion has been deposited into the Land and Water Conservation Fund, and $.824 billion has gone into the Historic Preservation Fund. The Land and Water Conservation Fund is used by the Federal government to buy park and recreation land and to assist States in planning, acquiring, and developing land and water areas for recreational use. The Historic Preservation Fund provides
matching grants to States (and through the States to local
governments), and to the National Trust for Historic Pre-
servation for the study, identification, purchase, and
reconstruction of historic properties.29/

Section 8(g), the 1978 OCSLAA, provides the single
method for the direct sharing of OCS oil and gas revenues
with affected coastal States. Section 8(g) is applicable to
OCS blocks within three miles of States' seaward boundaries
that may contain one or more oil or gas pools or fields
underlying both OCS and State lands. The revenues from the
lease of such OCS lands are to be distributed in a "fair and
equitable" manner agreed to by the Secretary of Interior and
affected coastal State Governors. Between 1979 and 1985,
more than $5.5 billion was collected from 8(g) tracts and
held in escrow by DOI as no agreement could be reached as to
the revenue split.

The Interior Department has argued that Congress simply
meant to compensate States for the drainage of oil and gas
from their lands adjacent to the OCS. Federal District
Court rulings in 1984, however, sided with States' inter-
estis, in part, finding that 8(g) revenue distribution should
reflect the fact that Federal bonus receipts may have been
enhanced by information obtained through prior leasing of
adjacent State-owned areas. While the cases were appealed
by DOI, one judge in Texas ruled that the escrowed funds
should be split equally between the State and Federal

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Between 1979 and 1985, the States became increasingly concerned with the slow progress of 8(g) negotiations. In 1984, both Louisiana and Texas, long staunch supporters of offshore development, filed suits to block OCS lease sales off their coasts; their two major reasons for bringing the legal actions were to (1) protest the slow resolution of 8(g) negotiations with DOI, and (2) prevent DOI from leasing 8(g) lands under the areawide system, which States felt did not guarantee fair return on the resource in which they were to share. Combined with the District Court ruling, these actions led to heightened tensions concerning the 8(g) fund distribution issue late in 1984 and early in 1985.

The Secretary of Interior, in an effort to "... prevent further controversy and avoid future protracted litigations ..." offered States 16.67 percent of bonus and rental revenues in August 1984; this offer was rejected by the States. In June 1985, the Administration agreed to terms for distribution included in a House of Representatives Budget Conference Committee Resolution. The escrowed funds under the proposal would be split 27/73 percent between State and Federal governments, respectively. Estimates of the amounts States would receive under the formula are:

- Alabama: $64 million
- Alaska: $56 million
- California $374 million
- Florida $.03 million
- Louisiana $492 million
- Mississippi $15 million
- Texas $377 million

This formula has become the standard for disbursements of 8(g) monies. Certain lesser issues related to Section 8(g) remain unsolved, however, such as the split of Federal tax revenues from 8(g) tracts. The States have argued they are entitled to a share of tax revenues under the OCSLAA, as the taxes are a part of OCS revenues from 8(g) tracts.

Post-lease Regulation

Once an offshore operator has been awarded the lease for a given OCS tract, the most significant, and difficult, requirement prior to initiating exploratory drilling is, in most cases, gaining approval for a plan of exploration (POE) from the appropriate MMS regional office (see Figures 6 and 7). Each exploration plan for a given lease includes (1) the proposed type and sequence of exploration activities; (2) a description of drilling vessels, platforms, and other structures that could come into contact with the seabed, including safety and pollution control devices; (3) the types of geophysical equipment to be used; (4) the approximate location of each exploratory well; (5) a detailed oil
Figure 7. Flow Diagram of the Approval Process for an OCS Plan of Exploration.
spill contingency plan; (6) other relevant geological and geophysical information; (7) an air-quality analysis; and (8) any other data the Director of MMS may require.32/

In addition to the POE document, a plan, to be complete, must include an environmental report and an explanation of the plan's consistency with adjacent coastal States' CZM programs. Environmental reports include (1) a description of onshore support facilities to be utilized; (2) the number of persons to be employed; (3) projected quantities and compositions of solid, liquid, and gaseous wastes; (4) support boat and aircraft transit patterns; (5) major supply, service, energy, and water requirements for implementing the project; (6) identification of environmentally sensitive areas; and (7) an assessment of the effects of the exploration work on the coastal and marine environments.33/ Much of the information contained in the environmental report is used by affected coastal States' CZM staffs to assess consistency with their management programs.

Industry operators may conduct preliminary geological, geophysical, and other surveys of the OCS in order to gain the information necessary to prepare their POE. Approval of a relatively simple permit is required prior to initiating survey work on the OCS. Critics of MMS have raised concerns as to the ease of gaining survey permits and the Service's lack of any enforcement mechanisms in regions where permit stipulations are applicable. This has been an especially
controversial issue in the Alaskan Arctic OCS where the effects of sonic blasts used in seismic surveys are believed to impact bowhead whales and other marine life.

Upon submission to MMS, the complicated POEs are reviewed for completeness and conformity with rules, regulations, and MMS policy. Once a POE has been deemed complete, MMS has thirty days to judge the document. Copies of the complete POE, including the environmental report and CZM consistency statement, are forwarded for review to other interested Federal agencies, adjacent States' Governors, and related State agencies. Copies are also made available to the public, with any proprietary data deleted.

As MMS initiates its consideration of the POE, engineers and other technical personnel prepare comments; the POE is also reviewed to assess environmental impacts. In the well-developed regions of the Gulf of Mexico OCS, it has been determined that exploration projects do not create impacts that are individually or cumulatively significant as defined under NEPA. In these mature OCS areas, a categorical exclusion review (CER) is conducted for each POE; if it is determined that no significant impacts are expected, no further environmental study is required under NEPA. Where significant impacts are possible, or there has been little previous oil and gas activity, MMS conducts and documents its own environmental assessment (EA) as stipulated in NEPA. If through the EA the Director of MMS concludes that
there will be no significant impact on the quality of the marine, coastal, or human environments, a formal "finding of no significant impact" is prepared; if significant impacts are seen as a possibility, the MMS prepares an EIS. The Service, in recent times however, has never prepared an EIS as part of the approval process for a POE in well developed areas of the Gulf of Mexico region. While, at present, CER exemptions are only used in the Gulf of Mexico OCS region, if other OCS regions are developed to a similar point in the future, where exploration projects are found to have no individual or cumulative impacts on the environment, CERs would be utilized in those areas also.

Following MMS review of the POE and analysis of comments from other agencies, the Service approves, disapproves, or recommends modifications to the plan. If approved, MMS may still not permit offshore activity on the project until State CZM concurrence is received from each affected State. State CZM agencies have three months to concur with, object to, or notify MMS that more time for analysis is required. If more time is requested, a three-month extension is granted; if the State CZM program takes no action within the first three months, consistency concurrence is assumed. Following its review, if a State CZM program denies consistency to a POE, an appeal may be made to the Secretary of Commerce; this but is a long and highly political process with only a limited chance for success.
Offshore operators are also required to have an approved Application for Permit to Drill (APD) prior to commencement of operations. The APD is submitted to MMS either with or subsequent to submission of the POE. The APD specifies in detail the drilling program to be followed, including descriptions of the blowout prevention system, the casing, cementing, and drilling-mud programs, and the results of the site specific shallow hazards survey. The MMS technical staff reviews the APD in detail; later the document will serve as the basis for inspections of the operator's operations. Additional APDs must be filed and approved each time a well is deepened, reworked, redrilled, or plugged back; sundry notices are also required for operations conducted that are not directly related to drilling, such as fracture treatment, perforating, or acidizing.35/

In 1976, the Secretary of the Army was given authority to prevent obstructions to navigation on the OCS, extending the jurisdiction of the River and Harbor Act of 1899.36/ Thus, prior to initiation exploratory work on the OCS, permits are also required from the Army Corps of Engineers.37/ In addition, other permits are required for aids to navigation from the U.S. Coast Guard, and under the National Pollution Discharge Elimination System from the EPA. These permits are, in most cases, routinely approved in less time than is required to review POEs.
In addition to the environmental work the MMS pursues through EISs, the Service also conducts the Environmental Studies Program (ESP). The ESP is the largest, single-agency, mission-oriented oceanographic program in the Federal government. Between 1973, the first year of the program, and 1984, MMS spent approximately $370 million on ESP (see Figure 8). Program expenditures increased ten-fold in 1975 and doubled again in 1976, as a result of the decision to lease off Alaska where little oceanographic data was available to policy makers.

Since 1973, nearly one-half of ESP funds have gone to Alaska, the remainder have been divided between the Atlantic, Gulf of Mexico, and Pacific regional offices, and the headquarters in Washington, D.C. that funds national studies. The overall goal of the program is to provide DOI with the necessary scientific information to assess the environmental impacts of proposed offshore development, to delineate sensitive coastal and marine zones, and to identify environmental hazards in order to ensure that the Department has the data necessary to fulfill its responsibilities under NEPA and OCSLAA.

Research under ESP is conducted by universities, State and Federal agencies, private firms, and research institutes. Except in Alaska, ESP is managed by MMS with input
Figure 8. Environmental Studies Program Expenditures 1973-1984. (U.S., Office of Technology Assessment, Oil and Gas Technologies, p.168.).
from the Regional Technical Working Groups and the OCS Advisory Board Scientific Committee. In some cases, members of these advisory boards may make significant, useful contributions to the ESP planning process; in other instances "management by committee" problems arise and little substantive advice is provided to MMS. Studies are ranked to receive funding priority by (1) the importance of the research to decision makers; (2) the date of the decision for which the study results are to be used; (3) the generic applicability of results from the study; (4) the availability and completeness of existing information; and (5) the applicability of the information to issues of regional or programmatic concern.

The Studies Program in Alaska, owing to a lack of technical expertise or experience in the region on DOI's part when the ESP was initiated, was contracted out to be managed by the National Oceanic and Atmospheric Administration's OCS Environmental Assessment Program. As MMS has increased its own experience with ESP and in Alaska it has taken over more of the program's management responsibilities in the state and its role will, in all likelihood, continue to grow.

Studies funded through ESP may be divided into seven general categories, though studies often do not fit into one or another category neatly: (1) biological studies; (2) hazards studies; (3) effects studies; (4) socioeconomic studies; (5) containment distribution baseline studies; (6)
transport mechanisms; and (7) ecosystem processes. While ESP has produced a tremendous amount of scientific data on this Nation's OCS, there remain important concerns as to the program's management and utilization of the data produced.

The question of management centers on the issue of whether the agency that is mandated and has the regulatory responsibility to develop the oil and gas resources of the OCS, which by definition involves impacting the environment, should then also manage the program monitoring those impacts. The analogy to the fox guarding the henhouse, and then also being employed to keep an accounting of the chickens and eggs inside, if not entirely fair, is a good one.

The second area of concern related to the ESP involves the utilization of the data produced in the leasing or regulatory policy making processes. In the past, prior to development of the first EIS for leasing in a new planning area, an ESP synthesis meeting was held to (1) assess scientific data from the region; (2) identify data gaps; and (3) attempt to apply the knowledge to leasing questions; smaller meetings were also held prior to the second and third sales in given areas. As the majority of active planning areas have already passed through this synthesis process, the MMS has introduced annual information transfer meetings (ITM) in each of the four OCS regions to disseminate ESP results. Held over a two or three day period,
these ITMs not only allow for the reporting of ESP contractors' findings, they seek to be a forum for wide-ranging discussion of regional scientific inquiry and debate.

While the ITMs are clearly a positive step, questions remain as to how well ESP data are assimilated into the body of scientific knowledge or into DOI decision making processes. Many ESP studies are never published or reviewed by the scientific community; while MMS has recently tried to index the information available, much of the data is lost to the world once the contract is completed. From earlier discussions in this chapter concerning problems with the utilization of EISs, it may be concluded that including ESP data in the EIS process is, at present, a questionable way of ensuring its integration into the decision making process. At nearly every decision point in the OCS leasing and development process, specific predictive scientific information regarding the environmental outcomes of management alternatives under consideration would have tremendous value. Currently, however, there appear to be only indirect routes for the application of ESP knowledge to leasing or regulatory decisions; thus the nature of the results themselves or the researchers trying to disseminate the data are often the determining factors in its use.

The potential of ESP is tremendous, and the program speaks well for the Federal government and DOI in particular when compared to State leasing programs where no scientific
study is funded; but the problems are real. In 1978 the National Research Council of the National Academy of Sciences published a critical report on ESP and many problems were corrected. In September 1986, the MMS commissioned a second review of the Environmental Studies Program to be conducted by the National Academy of Sciences. This multi-year, independent review of the ESP should guide the MMS towards increasing the utility of its scientific program in the future.

Summary

The Federal government exercises jurisdiction over the submerged lands and subseabed minerals seaward of State boundaries to the edge of the continental shelf, or out two hundred nautical miles from the coastal baseline, whichever is furthest. Within this territory, the Minerals Management Service of the Department of Interior is charged under the Outer Continental Shelf Lands Act Amendments of 1978 with:

- making offshore oil and gas resources available to meet the Nation's energy needs as rapidly as possible;
- balancing orderly energy resource development with protection of the human, marine, and coastal environments;
- ensuring the public a fair and equitable return on
the resources of the OCS; and

- preserving and maintaining free enterprise competition.

The MMS, operating under close scrutiny from environmentalists and pro-development interests, pursues their goals with mixed success. Many of the problems and frustrations have been more the result of political rather than technological limitations, however; factors that MMS has only limited control over. This chapter has set out the long, arduous, and complicated leasing and regulatory process for the OCS as simply as possible and highlighted some problem areas. Other controversial facets of the program have just been touched on, such as criticisms of the area-wide leasing system as opposed to tract selection offerings of lands.

The schedules and processes for conducting OCS lease sales are set out in five-year oil and gas leasing programs developed by DOI. Five-year programs govern the when, where, and how of lease sales and are produced through a two-year preparation process. Over these two years, three drafts are completed, an environmental impact statement is finalized, concurrence from other Federal and State agencies, coastal State Governors, Congress, and the President is sought, and the program is the subject of wide-ranging public comment. The schedule that is produced at the end of this two-year process, however, is likely to
be the subject of significant and regular changes, costly court battles, and public acrimony from both development and conservation interests.

Individual lease sales proceed through a similar development process with a series of proposals defining areas to be leased, production of an EIS, review by other Federal and State agencies, Governors, and the public. The results, for sales proposed in frontier leasing areas, are most often the same also: delays, court cases, and public acrimony. The approval process for the permits necessary to initiate exploration drilling is also often the subject of controversy in frontier areas. A complete plan of exploration is a thorough and often complicated document and while MMS review is limited to thirty days, adjacent States' coastal zone management programs may review the document for up to six months, then deny consistency and send the plan into a lengthy appeals process.

The MMS, in addition to many EIS projects, conducts the largest, single-agency oceanographic program in the Federal government—the Environmental Studies Program. This program has been responsible for gathering a great deal of scientific data on the OCS since its inception in 1973. Questions exist, however, concerning the MMS' role in directing ESP, as the agency acts as both impactor and assessor of the OCS environment. Other concerns have been raised as to the role of MMS as a scientific organization, the assimilation of ESP
data into the body of working scientific knowledge, and the use of ESP results in DOI leasing and regulatory policy making processes.

There are a good number of valid criticisms of the program MMS has developed to manage OCS resources—among others, nearly seventy percent of revenues are derived from bonus bids putting great pressure on MMS to lease large numbers of blocks; the EIS process provides little information useful to industry, the public, or government decision makers; it is incumbent upon offshore operators to become actively involved in the leasing process, with a good deal of expensive information already researched, years prior to any lease offering and with little assurance that specific tracts in the end will be leased or then cleared for exploratory drilling.

On the other hand, the OCS development program has offered more than 333 million acres of submerged lands for lease in a wide variety of areas on the continental shelf, more than 6.3 billion barrels of oil and 62 billion MCF of gas have been produced from the OCS, over $68 billion in revenues to the Federal government have been earned, a tremendous amount of scientific data has been gathered, and since 1969, the regulatory system has permitted operations that have proven safe and gone on without serious incident. It must also be considered whether the OCS program, caught in the nexus of interests balancing policy between environ-
mental protection and rapidly developing domestic energy resources, could ever be conducted without turmoil.
CHAPTER IV NOTES


4/ 10 Federal Register 12,303 (1945).


9/ Ibid., pp. 127-128.


14/ Ibid., p. 11.


20/ Entire discussion of lease sale steps from:
   (2) U.S., Department of the Interior, Minerals Management Service, Gulf of Mexico Index August 1983-October 1984, pp. 21-29; and


23/ Ibid., p. 58.


28/ U.S., Office of Technology Assessment, Oil and Gas Technologies, p. 211.


33/ Ibid., p. 32.

34/ Frank Pausina, Gulf of Mexico OCS Regional Office, Minerals Management Service, Metairie, Louisiana, interview held June 1985.


39/ U.S., Office of Technology Assessment, Oil and Gas Technologies, pp. 165-167.


CHAPTER V
CONCLUSIONS

This study has set out to assess the offshore oil and gas leasing and regulatory systems of Alabama, Texas, and the Federal government and then, through that assessment, identify facets of the States' programs that might, if implemented by the Federal government, better effect the goals of the OCS Lands Act Amendments of 1978. There has been little criticism of the Alabama and Texas systems in the course of this project, as the purpose has been to identify the positive aspects of their programs. On the other hand, numerous flaws within the Federal program have been made clear. In this analysis and comparison process, means, through the positive aspects of the State programs, have been drawn to needs, as pointed out through problems in the Federal program.

The Federal OCS oil and gas leasing and regulatory system has been and continues to be the subject of much study, controversy, and debate. In recent years the most pressing areas of concern have been the use of areawide versus tract selection lease offering systems; the sharing of OCS revenues with coastal States; the right of States to make pre-lease consistency determinations; the "fair and equitable" sharing of revenues from Section 8(g) tracts, the restrictions placed on offshore development in certain OCS
regions by Congress, the Department of Defense, and the National Aeronautics and Space Administration; and the concentration of leasing and exploratory work in limited areas of the OCS, among others. This study has attempted to step outside the debate that has surrounded these issues and instead focus on the fundamental problems in the structure and practice of OCS leasing and regulation. The broad and general nature of any study considering such fundamental issues has been made more manageable by looking at the basic issues through comparisons to the Alabama and Texas programs. This final chapter of the study sets forth a number of findings, areas identified for further consideration, and recommendations for action.

The goals of the Federal OCS management program, as set out in the OCSLAA, provide a logical framework and a clear set of purposes against which the results of the program can be tested. Congress, in expressing its interests, gave DOI direction that the Alabama and Texas programs lack. Without clear legislative guidelines, the State programs work under assumed goals that are very similar to the Federal ones, if not so clearly stated. It can be concluded that all the offshore management programs in the U.S. have the same general responsibilities. They work to preserve, protect, and develop oil and gas resources in a manner consistent with the need to (1) make resources available to meet needs
as rapidly as possible; (2) balance orderly offshore development with protection of the environment; (3) ensure returns from the public resources developed; and (4) preserve and maintain free market competition.

Certain limited exemptions to the pursuit or guarantee of these goals, or to the manner in which they are "balanced" by government policy makers must be allowed in judging various programs, but overall a consensus could be drawn that each program attempts to effect these goals. A good example of an exception would be the 1982 offering of submerged lands off Alabama, following the very successful 1981 State lease sale that brought in nearly a half billion dollars in bonus bids. The 1982 sale was pushed through the preparation process in only sixty days as political pressure to raise additional "windfall" revenues was high. The results of the 1982 sale were disappointing as the few bids received were extremely low and only one was accepted.

Given that the goals set out are ones to which almost all can agree, the question becomes how to best implement them. This is difficult as each of the goals is important and each, to a great extent, may also be mutually exclusive to another. The most apparent dialectic contained within the OCSLAA and the nation as a whole is between the necessity of protecting the environment and the need to maximize development of domestic energy resources.

The costs of continuing conflict over the OCS management
program are tremendous and growing. None of the OCSLAA goals are being served well through the turmoil that has embroiled the program since the early 1970s. Considered in a more positive light the costs could be interpreted as the potential value of planning and developing a less contentious system. The study by the OCS Revenue Sharing Working Group of the President's Cabinet Council on National Resources and Environment that estimated the costs to the nation of delays in leasing, deletions of tracts from offerings, legal expenses, and other forms of opposition to the OCS program at over $1 billion per year was probably conservative. The study did not take into account many very real costs, such as the effects of "discounts" industry would logically subtract from bids on controversial acreage where opposition to development was expected, the costs of deletions made prior to the proposed notice of lease sale stage, the costs of implementing various stipulations or studies, or various other possible but inestimable costs. It would be impossible to derive a real number to reflect the true losses to the nation of conflicts over the OCS as so many varying and interrelated costs are involved. The costs are as real as the conflicts, however, and what is most tragic is that such a great portion of the costs are not related to technological or economic limitations, but to political ones that in the end produce little but waste.

Three central issues are to be focused upon in consi-
dering alternatives to current Federal OCS management practices and the conclusions from comparisons drawn in the text. The first considers environmental regulation, the second return on rights and resources, and the third distribution of exploration and development rights. Each alternative put forth must be analyzed and tested on the basis of its utility in lessening conflicts in the leasing and regulatory process and better effecting the goals of the OCSLAA.

Environmental Regulation

The Environmental Studies Program, environmental impact statements, and consultations with affected coastal States and interested parties are the most significant means by which DOI currently seeks to gather and assess data on the environmental effects of OCS development. Concerns that these means and the regulations developed from them do not ensure protection of the environment, a goal of the OCSLAA, are justified. The ESP is good in and of itself, and that is just about as far as it often goes. There are only indirect means for assimilating ESP research results into the OCS policy decision making process and little data is reviewed in professional journals or enters the working "body of scientific knowledge." The EIS process produces huge, standardized, and generalized documents that are
expensive, but of little use to offshore operators, the public, or even the decision makers they are prepared for prior to each sale. Consultations between State and Federal officials most often take place in a political and confrontational situation, rather than as meetings between scientists, planners, and other mid-level, knowledgeable professionals. The goals of each side entering negotiations to resolve the concerns are often opposed and the results poorly serve the public.

The environmental coding system as employed by the State of Texas in its coastal waters has proven to be an effective tool for gathering and disseminating environmental data. There are few significant costs associated with the coding of offshore tracts; the codes, rather than being a major new program on their own, are a framework through which information and concerns can be organized and made useful. In such a framework much of the information about the OCS already collected could be made more accessible to offshore operators, the public, and Federal, State, and local officials. Drawn up by representatives from interested Federal, State, and possibly even local agencies, the OCS codes would indicate specific concerns of knowledgeable professionals as regards sensitive environments on a tract by tract basis. While the influence of politics could not be ignored, the task of developing detailed coding recommendations would appear to hold little allure to those outside the marine or
coastal zone management fields. Serving as recommendations only, decisions on using individual codes as federal lease stipulations could be later made by higher level policy makers—though it would be assumed that the advice of scientists and other "experts" would be fully considered. The codes, developed by these specialists, might serve as a useful foil to opposition as higher level decision makers, facing political pressures, try to implement costly restrictions in sensitive areas.

The use of environmental codes would benefit those on each side of continuing OCS development debates. For offshore operators, the codes would provide an easy source of information on specific OCS tracts and associated problems before any investment was made in surveying a tract. The operator would also know up front what all parties' concerns were, what likely stipulations would require, and who was voicing what concerns. This would alleviate much of the risk offshore operators now undertake in bidding on OCS tracts and lessen the "discounting" that currently takes place as operators assume those risks.

For DOI, the coding system would provide a readily accessible framework for ESP results and provide guidance as to where further studies were required. The system would also serve as a basis for the EIS process; detailed, up-to-date knowledge of the concerns of all parties' parts would allow for better analysis of potential impacts on the larger
planning area basis described in EISs. The codes, by providing information as to which agency put which concerns forth, would facilitate negotiations of mitigating measures or specific operating procedures between the parties immediately interested. Areas of concern and responsibility between agencies would be clarified, as each would know exactly what the others were doing. As mentioned earlier, the codes, as drawn up by the "experts", could also serve as a foil for decision makers placing controversial environmental restrictions on sensitive tracts.

For State and local officials, the codes would allow a means of making their environmental concerns heard outside heated, political forums. While not addressing all of the coastal States' concerns regarding OCS development, especially revenue-related questions, the coding system as it was reviewed and updated would allow for effective and regular State input into the OCS management process.

For the public, the coding system would provide an accessible means of judging how specific environmental concerns were being handled; the EIS process addresses this need to some extent, but is often too generalized or too imposing a volume to be of great use to the average citizen. Indirect benefits to the public would be realized through higher revenues, as "discounting" for risks was lessened; more effective use of the environmental studies funded by the government; and less waste in the OCS manage-
ment process.

The value of the coding system is limited, however. It is simply a means for gathering and disseminating information. It cannot, on its own, lessen the substantive disputes that have led on many occasions to the courts or decrease the impacts of oil and gas activities on sensitive environments. Its value is in ensuring that all parties have ready access to the same information, but from that point the onus is again on the parties involved to negotiate the best possible solutions to very real conflicts.

The OCS is a vast area and original development of codes for each tract would be an arduous and time-consuming task. All tracts need not be coded at once, however, and there are many persons involved in OCS research and management on a regional basis, so that the work could proceed in pieces. Once codes have been developed for a region, the process of regularly reviewing and updating the recommendations should be a more manageable task. There are a great many areas of the OCS where little detailed data is available; this fact should not be an argument against the use of the tract specific coding system, however, but rather a reason for further study and survey of the OCS and its resources. While the work involved in developing meaningful codes for each tract on the OCS would be great, so too could be the reward in terms of greater knowledge and better management. The experiences gained by Texas in implementing and using
its system could also prove to be an invaluable asset.

From the review of Alabama's offshore environmental regulatory system, the general conclusion might be drawn that industry can operate competitively under environmental stipulations far more stringent than those imposed currently throughout much of the OCS.

The State of Alabama allows no discharges of any kind into its coastal waters by offshore operators. A study by Exxon of the costs related to this restriction during the drilling of three exploratory wells revealed additional expenses ranging from 13.7 to 22.1 percent of total well costs. The increasing levels of oil and gas activity in Alabama waters make clear that operators believe they can produce gas profitably even with these added costs and royalty rates as high as twenty-eight percent along with eight percent severance and production taxes. It is probable that given more experience with work under the zero discharge clause and the wider availability of drilling platforms and rigs equipped to catch all wastes, costs associated with the restrictions could be lowered, but additional manpower would still be needed and the associated costs would remain substantial.

These added costs must be weighed against the environmental benefits and the value of less conflict and opposition to work offshore as environmentalists' and
States' concerns were allayed. This is not to argue that all work on the OCS be carried out with no discharges whatsoever, for obviously environmental effects two hundred miles offshore would be much different than those in the shallow Mobile Bay. However, empirical evidence from Alabama does suggest that offshore operators can work competitively under much more stringent environmental restrictions than are currently applicable throughout most of the OCS. Depending on the restrictions it may be a net benefit for the operator to work under stricter regulations if opposition to their activity, as a result, is reduced. In many cases, in nearly every OCS region, the MMS has already implemented specific restrictions which have effectively protected certain ecosystems and lessened opposition to offshore oil and gas activity; there are, however, a good deal more opportunities for such specific actions.

The utility of the environmental coding system in implementing stricter regulations on the OCS is clear. With the knowledge available through the codes as to tract specific concerns and recommended compensating operating procedures, stricter environmental regulations could be employed with maximum utility. Through the code system the efforts made by industry to better protect the marine and coastal environs would be more obvious to State and local officials, and citizens concerned about the risks of offshore development.
Return on Rights and Resources

Approximately seventy percent of Federal revenues from the OCS are currently derived from bonus bids; in part this is due to the fact that the royalty rate on nearly all OCS leases is 16.67 percent. The Federal government also levies no additional severance or production taxes, as is the case in Alabama and Texas waters. However, the OCS, in addition to being a very important domestic energy supply, is a major source of income for the Federal treasury—second only to taxes.

Given the importance of income from the OCS and the fact that Federal budget deficits have been, and will continue to be in the near term an overriding policy concern for Congress and the President, pressures to keep OCS revenues stable and high cannot help but be strong. With the largest portion of those revenues derived from bonus bids, pressures to keep income from the OCS stable and high translate immediately into pressure to lease large numbers of tracts each year. While numerous other factors shape OCS leasing policy too, it would be difficult to argue that these revenue considerations were not part of the reasoning behind the Reagan Administration's decision to try and open the entire OCS to areawide leasing. The areawide leasing program, though limited by ongoing opposition in various coastal regions of the nation, has resulted in relatively high and stable OCS
revenues since its introduction.

There has been a great deal of criticism of the areawide leasing program, much of it centering on the argument that limited public resources are being given away for less than fair market value. Looking at national budget realities, however, domestic social welfare programs; national planning and research programs, such as coastal zone management; and other very valuable Federal programs are being cut to reduce deficit spending. In this situation, it might be argued that leasing vast areas of the OCS, which results in high current revenues but the sale of resources for less than their maximum value, might not be a bad policy decision relative to other efforts to cut deficits. The questions presented here are much more complicated than just set out—deficit reduction is not a simple choice between aid to mothers with dependent children or areawide leasing, opening vast areas of the OCS to exploration has benefits in and of itself, and a myriad of other related arguments can be entered into the political debate. But simply stated, as long as OCS revenues are so directly related to rates of offshore leasing, budget induced pressures will exist to keep leasing rates high.

The State of Texas has royalty rates generally set at 25 percent with severance taxes of 7.5 percent on gas and 4.6 percent on oil. Since discovery of the Mary Ann gas field, the State of Alabama has let leases with royalty rates
generally set at 25 percent, but ranging up to 28 percent. Alabama also has set severance and production taxes totaling 8 percent for offshore leases. Royalty rates for OCS oil and gas production on future leases could be substantially increased and still be less than or equal to the effective royalties collected by States, such as Texas and Alabama, in their coastal waters.

An increase in royalty rates would lead to a decrease in the portion of OCS revenues derived from bonus bids. Budget induced pressures to lease large numbers of tracts each year would decrease as income from the OCS came to be founded more on stable returns from higher royalty rates, and the percentage of revenues dependent on bonus bids decreased. Thus leasing policy decisions could be based more on resource and environmental considerations than budgetary questions. This shift in emphasis would not necessarily be immediately perceptible, as higher leasing rates will always yield higher immediate returns while any bonus bids are collected. With seventy percent of current OCS revenues based on bonuses, however, shifts in leasing rates cause direct and radical shifts in income. While higher royalty rates would not directly bring lower leasing rates, a lessening of the wide swings in income due to leasing rate variations would allow policy makers greater freedom in adjusting those rates.

The second significant consideration in raising royalty
rates would be the possibility of increasing the return on resources developed. An Interior Department study predicted that doubling the OCS royalty rate would result in a twenty-five percent decrease in average bonus bids. It is logical that raising royalty rates would result in some decrease in bonus bids offered for tracts, but empirical evidence from Alabama and Texas leasing results does not support such a direct correlation. The two States have royalty rates, and production and severance taxes that total nearly twice the amount earned from OCS production, yet the average bonus bids received by Alabama are much higher than those on the OCS, while the average bonus in Texas is much lower. Thus, while it cannot be denied that higher royalties would in some cases lead to lower bonuses, royalty rates would not appear to be the critical factor in determining bonus bid levels in many cases.

Higher royalty rates might also lead to fewer conflicts in the OCS management program as the implied budgetary pressure to lease large numbers of tracts was eased. As the importance of leasing the greatest possible acreage decreased, other factors in policy decisions, such as environmental impacts or competition, could be considered in a more balanced fashion. The receipt of greater revenues from the OCS resources could lead to decreased opposition to further development in the long run.
A second conclusion related to return on rights and resources that might be drawn from comparisons of the Alabama, Texas, and Federal offshore oil and gas programs regards the effect of competition on bonus bid returns. Again, a most complicated matrix of factors determines bonus bids and no one result can be tied to only one factor; variations in geology must be highlighted as a reason for bid differentials. The evidence, however, does suggest areas for further consideration.

In its August 1984 offering of State submerged lands, Alabama's average bonus bid totaled $3,470 per acre. Texas held two offshore sales during 1984, and the average bonus bid received for both totaled $240 per acre, a bonus return nearly twice that received in previous years. The Federal government held one sale in the Central Gulf of Mexico off Louisiana, Mississippi, and Alabama in 1984 and received an average bonus bid of $581 per acre. In a 1984 sale in the Western Gulf Planning Area off Texas, the bonus received averaged $433 per acre.

In comparing the States' results in bonus bidding and the level of competition for leases in those States, relationships are found. Alabama has only 133 submerged tracts within its jurisdiction. Discoveries in Mobile Bay have led to estimates of significant reserves of natural gas in the area and interest in offshore development has been high. The State has kept its offerings small, rejected many bids
as insufficient, and effectively kept competition for leases very strong. The State, as evidenced by the 1984 sale results, has also received relatively high bonus bids for leases.

Texas offshore waters are also known to hold significant gas reserves, but development in those waters has gone on for years. The energy industry and State have a long and close relationship. For years the State practice was to offer all unleased and unencumbered offshore tracts in which industry voiced any interest; the State also accepted every high bid received for tracts. Thus competition for tracts was low and many were leased time and time again over the years. In 1983, after a review of State leasing results in comparison with bonuses received on adjacent Federal OCS tracts, some measures to increase bonuses were implemented. In the October 1983 lease sale, twenty-two high bids were rejected as insufficient and, for 1984 sales, minimum bid requirements and nomination fees were imposed. These actions, at least in part, resulted in the doubling of average bonuses received, but the measures were limited. As a rule, all tracts nominated are still offered for sale and minimum bid levels are not extremely high, so competition has remained low and, as evidenced in 1984 sale results, average bonus bids have remained relatively small. This simple comparison of competition levels and average bonus bids between Alabama and Texas would seem to suggest a rela-
tionship; an argument could be made that the same sort of relationship between competition and bonus bid rates would also exist on the OCS.

Distribution of Exploration and Development Rights

The current Federal system for scheduling and conducting OCS lease sales is a tremendously long and uncertain process. An offshore operator could express interest in a given offshore region early in the five-year program development process, when such input from industry is requested, have that advice accepted by DOI, and not find tracts in that specified area offered for up to seven years, even with no opposition or unscheduled delays. While DOI only has limited control over the delays or deletions of tracts caused by opposition to offshore development, the Department has a great deal of control over the scheduling and conduct of sales. The length of time currently built into the system between an operator's expression of interest and the actual offering of leases is extremely long, at the very least nearly two years. This situation forces industry to make decisions as to leasing interests, an expensive research process, years before the investment can possibly pay off through a discovery. The up-front investment required often shuts independent oil and gas companies out of the selection process as the costs of expensive OCS research
at least two years prior to leasing has proven prohibitive.

To an extent the areawide leasing system has overcome much of this problem as the goal of the leasing system is to offer all available OCS lands in a region in each sale. With areawide leasing independent operators have begun to bid on OCS tracts, especially in the Gulf of Mexico region. But continuing opposition to offshore development has led to deletions of significant numbers of tracts in various regions. In this situation, even with "areawide" leasing, it is incumbent upon operators to make their specific interests known to DOI so that deletions of tracts in high interest areas are avoided where possible.

In Texas the lease sale process is almost constantly in motion. Tracts are offered every six months and there is little history of litigation in State waters delaying sales. Thus, at most, if an operator nominated a tract for sale the day after consideration of tracts for offering in the next sale was closed, the wait until the nominated tract was offered would not be more than ten months. At least, the wait would be four months and the regular schedule is well known so that operators can easily pace their research investments for maximum return. Under the Texas system, an operator is also almost certain to have nominated tracts put up for sale in the next available offering.

In Alabama, there is no schedule for lease sales owing to the fact that there are only 133 submerged State tracts.
With heightened interest in offshore lands in the Mobile Bay area, however, the State has held a number of sales in recent years. Under the lease sale preparation schedule used for the August 1984 sale, which State officials have decided to use as the basic framework for future lease sale preparations, tract nominations were accepted up until four and a half months prior to the offering.

The Federal leasing system must meet a number of regulatory requirements, such as completion of an EIS, from which the State systems are exempt. There is no reason, however, why these regulations require industry to make its specific interests known at least two years prior to an offering.

Allowing industry to submit nominations or voice its interests in specific regions at points in time closer to sale dates would allow operators to participate in the lease sale preparation process without requiring unduly long periods of capital investment prior to any chance of return. This would create a situation where more small, independent operators could afford to participate in the sale preparation process. And while not necessarily true, this might also encourage higher levels of competition for OCS resources and increased development of domestic oil and gas resources offshore as more operators began to participate in the process. So through adjustments in the sale preparation process, that could in themselves save the
fying such work could be based simply on the value of MMS' increased ability to judge the value of the rights and resources it was releasing.

As considerations such as those presented in this study are pursued, an ever increasing number of concerns and questions are raised. At some point a line must be drawn, however, and discussion concluded, for on difficult policy issues such as these the questions will not be simply answered nor concerns easily allayed.

Recommendations

On the basis of the comparative analysis pursued between the offshore resource management programs of Alabama, Texas, and the Federal government, the following recommendations are made:

(1) The Federal government should implement a resource management recommendation code system similar to that utilized in Texas, as a framework for the assessment of the OCS environment.

(2) Further consideration should be given to stricter environmental protection stipulations on OCS operations, as a means of minimizing environmental impacts.

(3) Royalty rates for OCS production should be raised to a level comparative to levies on production in
Alabama and Texas waters, allowing for increased returns on public resources and less pressure to maintain high leasing rates.

(4) Consideration should be given to increasing competition for OCS leases in order to better assure high rates of return for public resources.

(5) The OCS lease sale preparation process should be adjusted to allow for industry input as to specific areas of interest at a point closer to the actual sale date, allowing more operators to participate in the process.

Each of these recommendations would also serve, in different ways, to lessen the conflicts and turmoil that currently embroil the OCS leasing and regulatory program. The benefits of a less confrontational program go beyond those gained simply through the conduct of a more rational and efficient resource management process; they touch each of the goals set forth in the OCSLAA.

Lessened conflicts and turmoil would naturally reduce the risks taken by industry, encourage more operators to work offshore, and allow for more effective environmental protection. The results would be safer operations offshore with less environmental impacts and a less fearful public; increased competition and higher levels of development as more operators ventured offshore; and higher revenues for the Federal government as bids were discounted less for
risks, more information was made available to operators in making their leasing decisions, and activity offshore increased.

There are many steps that could be taken to lessen the turmoil surrounding OCS development and each, individually, would benefit the nation. The recommendations made in this study are certainly not the only, or necessarily the best, actions that could be taken; they are simply a basis for further consideration and discussion. The resources of the OCS are of vital national interest and the political confrontations that currently mark each step in the development process are tragic wastes when effective, proven alternatives are available that might serve the interests of all.
ANNOUNCEMENT

CALL FOR NOMINATIONS
SUBMERGED LANDS
STATE OF ALABAMA

The State of Alabama, Department of Conservation and Natural Resources has tentatively set August 14, 1984, as the date for its next major oil and gas lease sale pertaining to state-owned submerged lands in Alabama's coastal waters.

The purpose of this announcement is to solicit written nominations by numbered tracts in accordance with the enclosed map entitled "State of Alabama, Oil and Gas Lease Tracts, Coastal Area Submerged Lands".

The enclosed official tract nomination form must be used in making all nominations. The completed form and check in the non-refundable amount of $25.00 for each tract nominated should be mailed to the Department of Conservation and Natural Resources on or before March 30, 1984.

For additional information, contact the State Lands Division, Department of Conservation and Natural Resources, 64 North Union Street, Montgomery, Alabama 36130, telephone number (205) 832-6354.

TENTATIVE SCHEDULE

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<tr>
<td>September 1, 1983</td>
<td>Issue Call for Nominations</td>
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<td>March 30, 1984</td>
<td>Deadline for Nominations</td>
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<td>April 30, 1984</td>
<td>Preliminary Tract Selection</td>
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<td>May 17, 1984</td>
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<td>June 8, 1984</td>
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<td>June 15, 1984</td>
<td>Legal Notice of Lease Sale</td>
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APPENDIX 1. Call for Nominations and Tentative Schedule, Alabama State Offering of Submerged Lands 14 August 1984. (Department of Conservation and Natural Resources, Call for Nominations.)
Pursuant to Chapter 32 and Subchapters A-E, C & F of Chapter 52 of the Natural Resources Code, and subject to all rules and regulations promulgated by the Commissioner of the General Land Office and/or the School Land Board pursuant thereto, and all other applicable statutes and amendments to said Natural Resources Code, providing for the leasing of certain areas belonging to the State, the School Land Board of the State of Texas will receive competitive sealed bids until 10:00 A.M., April 2, 1985, at the General Land Office in Austin, Texas, and will lease such areas to the highest bidder (subject to the right to reject any and all bids) for the production of oil and/or gas.

All bids shall be sealed and addressed to the COMMISSIONER OF THE GENERAL LAND OFFICE, STEPHEN F. AUSTIN BUILDING, 1700 NORTH CONGRESS AVENUE, AUSTIN, TEXAS 78701. The envelope shall be endorsed, "SEAL ED BID FOR MINERAL LEASE, APRIL 2, 1985". Bids received not later than 10:00 A.M., APRIL 2, 1985, will be opened at the first meeting of the School Land Board subsequent to 10:00 A.M., APRIL 2, 1985, such meeting to be held in the General Land Office, Austin, Texas. Bids received after the above specified time will not receive consideration by the Board. For the purpose of bidding, the description given in the attached list shall be followed.

Separate bids must be filed for each area identified by a separate Plg. No., and the cash offered must accompany each bid in some form payable at par (Time Drafts not acceptable) to the Commissioner of the General Land Office in Austin, Texas. Section 52.019 of the Natural Resources Code provides that if the highest bid for the same area is made by more than one applicant, all such applications shall be rejected.

Some of the tracts listed herein for oil and gas leases are situated within one thousand feet of production of oil and/or gas on privately owned land. Section 52.034 of the Natural Resources Code provides:

(a) If oil or gas is produced in commercial quantities from a well located on a privately owned area and the well is located within 1,000 feet of an area leased under this subchapter B of Chapter 52 of the Natural Resources Code, the lessee of the state area shall begin in good faith and prosecute diligently the drilling of an offset well or wells on the area leased from the state within 60 days after the initial production of privately owned area.

(b) An offset well shall be drilled to a depth and the means shall be employed which may be necessary to prevent undue drainage of oil or gas from beneath the state area.

(c) Within 30 days after an offset well has been completed or abandoned, a log of each well shall be filed in the land office.

For additional information or bid forms, write to the Commissioner of the General Land Office, Stephen F. Austin Building, 1700 North Congress Avenue, Austin, Texas 78701.

NOTE: PURSUANT TO SECTION 32.110 OF THE NATURAL RESOURCES CODE, EACH BIDDER ON A MINERAL LEASE SHALL REMIT BY SEPARATE CHECK AN AMOUNT EQUAL TO ONE AND ONE-HALF PERCENT OF EACH BID, PAYABLE TO THE COMMISSIONER OF THE GENERAL LAND OFFICE, AS A SPECIAL SALE FEE. THE SPECIAL SALE FEE ON HIGH BIDS ACCEPTED BY THE BOARD WILL BE DEPOSITED BY THE COMMISSIONER OF THE GENERAL LAND OFFICE IN THE STATE TREASURY. ALL SPECIAL FEES REMITTED BY UNSUCCESSFUL BIDDERS WILL BE RETURNED TO THOSE BIDDERS WITH THEIR BID CHECKS. PLEASE REMIT SEPARATE CHECKS WITH EACH BID.

By order of the School Land Board in regular meeting of said Board, January 15, 1985.

Linda S. Eicker
Secretary
Commissioner of the General Land Office and Chairman of the School Land Board

APPENDIX 2. Terms of a Texas Lease Offering of State Lands. (Texas, General Land Office, "Oil and Gas Notice for Bids," (Austin, January 1985), (Typewritten)).
DEFINITION AND EXPLANATION
OF RESOURCE MANAGEMENT CODES

The Habitat Management Implementation Codes are intended to prevent serious alterations or impact to certain habitats. Their development can generally proceed unaided, if the applicant can show that the impact will not seriously affect the state issued plans. Some unavoidable impacts may be allowed, subject to negotiation for mitigation.

THE CODES ARE SHOWN BELOW AS ABSOLUTE RESTRICTIONS.

A list of factors considered to be essential for certain management includes but is not limited to the following:

Algal Lists

Archeological Sites

Bay bottoms (off high biological productivity)

Clay Banks (Aquatic)

Hydrology

Nests

Nursery Habitat

Oyster Beds

Recreational Values

Reefed Grounds

\[\text{Appendix 3. Texas State Resource Management Codes (1) Definitions and Explanations, (2) Codes Assigned to Gulf of Mexico Submerged State Tracts, and (3) Key to Agencies Assigning Specific Codes to Tracts. (Texas, General Land Office, "Oil and Gas Notice for Bids," (Austin, January 1985), (Typewritten)).} \]
APPENDIX 3. Continued.
Avoid orchard grasslands, marshes, and other sensitive vegetation areas; avoid drilling (in situ) on these areas. Record sightings of sensitive areas and contact the nearest local office of the Texas General Land Office and federal and state natural resource agencies.

Sensitive native habitat areas exist within the subject tracts, but oil and gas exploration and other activities may be permissible. If sensitive areas are located in fault block, the Texas General Land Office (TGLO) should be contacted immediately. The TGLO staff will review the data with the county and state wildlife agencies. The County of Cameron and the Texas General Land Office should be consulted for site-specific information concerning protection of sensitive habitats in the tract.

No shallow water bodies or brooks should be disturbed. This includes streams and rills that are present on the property. Disturbance of shallow water bodies or brooks should be minimized to avoid disturbing sensitive habitats and alteration of fish habitat.

State archaeological sites and other cultural resources should not be disturbed. The Antiquities Committee and State Historic Preservation Office should be contacted.

Protect valuable historical shipwrecks and other internationally recognized artifacts. Anyone should contact the State Underwater Archaeologist at Texas General Land Office for information.

Work within this tract should be coordinated with private property owners; contact the Texas Parks and Wildlife Department for information.

Issues protection of private property boundaries that exist in this tract by requiring identification of activities.

Safety is the primary concern of the pipeline installation on the subject tract. A review of the pipeline installation on the subject tract allows agency review of the sources and installation methods used for pipeline construction to ensure protection of sensitive habitats in the tract.

No shallow water bodies or brooks should be disturbed. This includes streams and rills that are present on the property. Disturbance of shallow water bodies or brooks should be minimized to avoid disturbing sensitive habitats and alteration of fish habitat.

The low-profile structure for all pipeline facilities to minimize visual impact.

Work on the subject in Section 7 evaluation under the Endangered Species Act.

Ensure compliance with federal law concerning protection of endangered species. Contact the U.S. Fish and Wildlife Service.

Work on the subject in Section 9 recommendations or restrictions by federal, state, or local government; contact the Texas General Land Office for assistance.

A city or other governmental body with jurisdiction over a stream, lake, or property boundary should be consulted. Contact the Texas General Land Office for information.

APPENDIX 3. Continued.
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APPENDIX 3. Continued.


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