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REPORT OF THE COMPTROLLER GENERAL OF THE UNITED STATES

Acreage Limitations On Mineral Leases Not Effective

Bureau of Land Management
Department of the Interior

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-118678

The Honorable Patsy T. Mink, Chairperson
Subcommittee on Mines and Mining
Committee on Interior and Insular Affairs
House of Representatives

Dear Madam Chairperson:

In response to your June 6, 1975, request and subsequent agreements with your office, we are reporting on the changes and improvements needed by the Bureau of Land Management, Department of the Interior, in administering acreage limitations on mineral leases.

As your office directed, we did not obtain formal written comments from the Department; however, we did discuss most of the matters presented in the report with Interior officials and included their views and comments as appropriate.

As agreed with your office, we will send copies of the report to the Director, Office of Management and Budget; the Secretary of the Interior; and the appropriate congressional committees.

Sincerely yours,

Elmer B. Staats

Comptroller General
of the United States

Contents

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D I G E S T

Because the Subcommittee on Mines and Mining, House Committee on Interior and Insular Affairs, is considering revising existing mining laws, GAO was asked to review the acreage limitations on onshore oil and gas, phosphate, potash, and sodium leases to determine the

--appropriateness of and basis for the limitations,

--effectiveness of the Bureau of Land Management's system for monitoring and insuring compliance with lease limitations, and

--identification of various methods of exclusion which allow lessees to hold more acreage than allowed by the specific limitations set by law and Federal regulations.

The Subcommittee also asked GAO to recommend improvements in these areas.

The primary purpose of the Mineral Lands Leasing Act, as amended, was to encourage exploration, development, and production of Federal mineral resources. The act and implementing Federal regulations place limitations on the number of acres of public domain lands that a person, association, or corporation may hold or control under a single Federal mineral lease and under all such leases. The primary purpose of acreage limitations is to prevent monopoly of any particular mineral found on Federal lands. The Mineral Leasing Act for Acquired Lands places the same limitations on acquired Federal lands.

GAO was unable to determine the basis for the specific number of acres used as the current acreage limitations on phosphate, potash, sodium, and onshore oil and gas by reviewing the act's legislative history and discussing the matter with Department officials. The Bureau

of Land Management is responsible for issuing Federal leases and monitoring them to insure compliance with acreage limitations. The Department's Geological Survey recommends lease terms and conditions to the Bureau.

Bureau officials said they had no official position on the appropriateness of the phosphate, potash, and onshore oil and gas acreage limitations but believed the maximum sodium acreage limitation of 5,120 acres was too small. (See p. 5.)

Bureau and Survey field office officials told GAO that acreage limitations were not an effective way to prevent monopoly of phosphate, potash, and sodium because the thickness and quality of mineral deposits varied greatly and because the amount of recoverable minerals (reserves) found in a specific number of acres at two locations could vary tremendously. (See p. 11.)

Acreage limitation exclusions allow an individual or corporation to legally own or control considerably more acreage than allowed by the limitation. The principal exclusions on the minerals included in GAO's review were (1) unit plan of development, (2) fractional interests of one company in other companies' holdings, (3) family holdings, and (4) mining more than one mineral on the same land. (See p. 14.)

Unlike Federal leases, the oil and gas, phosphate, potash, and sodium leases on State-owned land issued by Utah and Wyoming and leases on private land do not have acreage limitations. Therefore acreage limitations on Federal leases may be only partial deterrents to monopolization. (See p. 16.)

The Bureau does not have a system for insuring compliance with the onshore oil and gas maximum acreage limitation. Bureau officials said they were not enforcing the acreage limitation because of the huge workload and high costs involved with administering the large volume of

leases and lease assignments and the numerous exclusions which made the limitation meaningless. (See p. 18.)

Moreover, the Bureau was not effectively controlling the phosphate, potash, and sodium acreage limitations (See p. 20.)

The Subcommittee sent a letter to the Secretary of the Interior on November 6, 1975, requesting his views and comments on whether

--there was a continuing need for acreage limitations and

--acreage limitations were the most effective way of preventing monopoly of Federal mineral resources or whether another system, such as a limitation on estimated reserves, would be more appropriate, especially for solid minerals. (See p. 4.)

In its April 2, 1976, response, the Department said there were problems with the use of acreage limitations; however, it did not consider that a reserves limitations system was the most effective way of limiting Federal mineral holdings. (See pp. 6 and 12.)

The Department also said proposed diligent development and advance royalty requirements, such as those in the Department's proposed coal regulations, could obviate the need for either reserves or acreage limitations. (See p. 12.)

GAO believes that the Department's diligent development and advance royalty requirements may encourage production and perhaps may reduce speculative holdings, but they do little to prevent extensive holdings or monopoly--the primary purpose of acreage limitations. (See p. 12.)

GAO is recommending that the Secretary of the Interior require the Director, Bureau of Land Management, to make a study to help in determining whether there is a need for limitations on Federal mineral holdings based on acreage or some other measure, such as estimated mineral reserves. If so, the Director should determine the appropriate type and size of the limitation for

each mineral that the Federal Government leases and recommend to the Congress that the Mineral Lands Leasing Act and the Mineral Leasing Act for Acquired Lands be amended accordingly. (See p. 17.)

If limitations are needed, the Secretary should require the Bureau's Director to develop and implement a system to control the limitation for each mineral the Federal Government leases. (See p. 23.)

CHAPTER 1

INTRODUCTION

The Subcommittee on Mines and Mining, House Committee on Interior and Insular Affairs, in a letter dated June 6, 1975, asked us to review certain aspects of the acreage limitations for phosphate, potassium (potash), sodium, and onshore oil and gas, including the

--appropriateness of and basis for the limitations,

--effectiveness of the Bureau of Land Management's system for monitoring and insuring compliance with lease limitations, and

--identification of various methods of exclusion which allow lessees to hold more acreage than allowed by the specific limitations set by law and Federal regulations.

The Mineral Lands Leasing Act, as amended (30 U.S.C. 184), and regulations issued pursuant to the act place limitations on the number of acres of public domain lands that a person, association, or corporation may take, hold, own, or control under a single Federal mineral lease and under all such leases. Public domain lands generally are those lands which have never left Federal ownership or which were obtained by the Federal Government in exchange for lands originally owned by the Government. The Mineral Leasing Act for Acquired Lands (30 U.S.C. 352) places the same acreage limitations on acquired Federal lands. Acquired lands are those lands which the Federal Government obtained by purchase or gift or through condemnation proceedings.

The primary purpose of the acts was to encourage the exploration, development, and production of Federal mineral resources. The purpose of acreage limitations was to prevent monopoly of any particular mineral found on Federal lands and to afford all citizens an equal opportunity to share in the development of our mineral resources.

The following table shows as of June 30, 1975, the number and acreages of Federal leases on public domain and acquired lands in the entire United States and in the two States--Utah and Wyoming--where we did most of our field review work.

Mineral	United States Number of leases	United States Acres	Utah and Wyoming Number of leases	Utah and Wyoming Acres
On public domain land:				
Onshore oil and gas	102,815	80,620,625	55,203	38,527,932
Phosphate	134	91,556	19	22,819
Potash	161	237,184	25	41,722
Sodium	84	132,605	44	77,624
On acquired land:				
Onshore oil and gas	11,564	8,069,409	592	220,661
Phosphate	4	825	0	0
Potash	0	0	0	0
Sodium	0	0	0	0

In view of the limited number of leases on acquired lands, we reviewed primarily leases on public domain lands. However, our conclusions and recommendations also apply to acquired lands.

Most of the phosphate and potash produced in the United States in 1975 was used to make fertilizer. The demand for these minerals is expected to increase as the world demand for food increases with population gains.

Sodium is used principally for making glass and manufacturing pulp, paper, and various chemicals. The demand for sodium is expected to increase at an annual rate of about 2 to 3 percent a year through 1986.

The Bureau of Land Management, Department of the Interior, is responsible for issuing Federal leases and monitoring them to insure compliance with acreage limitations. The Bureau's State offices are responsible for monitoring minerals (oil and gas, potash, and sodium) which have acreage limitations for Federal land in each State. The Bureau's Idaho State Office monitors phosphate which has a total acreage limitation for the United States.

The Department's Geological Survey supervises prospecting, development, and production operations and activities. It also recommends lease terms and conditions to the Bureau.

SCOPE OF REVIEW

We reviewed the legislation, regulations, policies, procedures, and practices pertaining to acreage limitations. We interviewed Bureau officials and reviewed appropriate records at Washington headquarters; Denver Service Center; and the Wyoming, Utah, and Idaho Bureau State offices. We also interviewed Survey officials and industry representatives.

CHAPTER 2

BASIS FOR AND APPROPRIATENESS OF ACREAGE LIMITATIONS

The Subcommittee asked us to determine the basis for and appropriateness of the current acreage limitations on phosphate, potash, sodium, and onshore oil and gas and to identify the various methods of exception which allow lessees to hold more acres than allowed by the specific acreage limitations set by law and Federal regulations.

During our review, certain questions arose regarding the basis for and appropriateness of acreage limitations for which we were unable to obtain satisfactory answers. For example, we questioned:

--The appropriateness of the specific acreage limitations for each lease and for total leaseholdings currently in effect for phosphate, potash, sodium, and onshore oil and gas leases.

--Whether there was a need for acreage limitations to prevent monopoly or to accomplish the other major purposes for which acreage limitations were originally established.

--Whether the use of acreage limitations was the most effective way of avoiding monopolization of mineral deposits or whether another system, such as a limitation on estimated reserves, would be more appropriate for some minerals, especially solid minerals.

We discussed these matters with the Subcommittee staff and assisted in preparing a letter which was sent to the Secretary of the Interior on November 6, 1975, requesting his views and comments. (See app. I.) The Deputy Under Secretary of the Interior answered the letter on April 1, 1976. (See app. II.) Pertinent comments of the Deputy Under Secretary, as well as GAO's analysis of them, are incorporated in the appropriate sections of the report.

In view of the limited amount of information available about the basis for and appropriateness of acreage limitations, we believe the Secretary of the Interior should require the Bureau to study the concept of acreage limitations to help in determining whether there is a need for limitations based on acreage or some other measure, such as estimated mineral reserves. If a limitation is needed, the Bureau should determine the appropriate type and size and refer its findings to the Congress for consideration.

Throughout our review we noted that Bureau officials and employees gave a low priority to acreage limitation compliance efforts. An ineffective system of controlling acreage limitations and numerous errors in the control records were the results of the low priority.

Bureau and Survey field office officials said that acreage limitations were not an effective way to prevent monopoly of phosphate, potash, and sodium because the thickness and quality of mineral deposits varied greatly from State to State and even within a State and because the amount of recoverable minerals (reserves) found in a specific number of acres at two locations could vary tremendously.

The act and regulations allow an individual or corporation to hold leases on contiguous or adjoining lands up to the total maximum acreage allowed. Bureau officials told us the single-lease limitation on phosphate, potash, sodium, and onshore oil and gas did not prevent monopolization of any of these minerals and increased the Bureau's cost of administering the leases. Also a Bureau official said the Bureau's practice of allowing lessees to assign onshore oil and gas leases in parcels as small as 40 acres hindered development, increased the Bureau's administrative work, and served no useful purpose.

We identified the following principal exclusions which allowed lessees to hold more acreage than allowed by the specific limitations set by the act and Federal regulations (1) unit plan of developing oil and gas fields, (2) fractional interests of one company in other companies' holdings, (3) allow each family member to hold land up to the limitation, and (4) mining more than one mineral on the same land.

NEED TO DETERMINE APPROPRIATENESS OF ACREAGE LIMITATIONS

We could not determine the basis for the current maximum acreage limitations on phosphate, potash, sodium, and onshore oil and gas by reviewing the act's legislative history and discussing the matter with Department officials. Bureau officials told us that the maximum sodium acreage limitation of 5,120 acres was too small, but they took no position on the appropriateness of the phosphate, potash, and onshore oil and gas acreage limitations.

The acreage limitations for the minerals we reviewed have been increased to their present level since enactment of the act in 1920, primarily because of producer requests

for increased mineral reserves to justify the large investments necessary to develop mineral deposits and because of the increased public demand for the minerals. However, we found no studies which showed why the specific number of acres had been selected as the current acreage limitations.

In its April 2, 1976, reply, the Department said that, with the possible exception of the 5,120-acre restriction on the size of sodium leases, the current acreage limitations for these minerals did not appear to cause the mining industry many problems. However, the Department said that there were problems in attempting to avoid speculation and monopolization of mineral resources with the use of acreage limitations. According to the Department, it basically was not possible to prevent all speculative holdings of Federal mineral leases by using acreage limitations alone, because small firms whose holdings were below the established limitations could, without other restrictions, speculate within those limits.

The Department stated that the Federal Government often was only one of many owners of minerals within an area and that, since non-Federal lands were not subject to acreage limitations, it might be possible for a company to "block up" reserves of private minerals, along with a selected pattern of Federal leases, to achieve enhanced market power in some areas. The Department also stated that acreage limitations did not take quantity, quality, or cost factors into consideration and that the quality of the mineral resource offer was more important than the quantity under lease.

Onshore oil and gas acreage limitation

The act (30 U.S.C. 184(d)) and implementing Federal regulations provide that no person, association, or corporation hold, own, or control at any one time more than 246,080 acres under Federal oil and gas leases in any one State, except in Alaska which has a larger limitation.

Bureau officials were unable to provide any information on official positions on the basis for or appropriateness of the current acreage limitation; however, they said that the numerous exclusions from the limitation made it meaningless.

We discussed the appropriateness of the current oil and gas acreage limitation with leaseholders in Wyoming and Utah. Officials of regional companies (located primarily in the Rocky Mountain region) believed the current acreage limitation should remain unchanged. They feared that a large

increase in or elimination of the limitation would allow the major companies (larger companies located throughout the United States) to monopolize the industry and would, in turn, force the regional companies out of business.

On the other hand, major company officials said the current limitation should be greatly increased or be eliminated. However, these companies held large amounts of land that were not producing and Bureau officials told us that the acreage limitation did not appear to be adversely affecting the companies' operations. Major company officials also said the limitation served no useful purpose because the companies would not attempt to monopolize Federal land if the limitation were eliminated.

We also discussed the appropriateness of the current oil and gas limitation with representatives of the Petroleum Associations in Utah and Wyoming. The representatives did not have an association position on the appropriateness of the oil and gas acreage limitation.

The Department, in its April 2, 1976, reply, stated that some changes in the act relating to the onshore oil and gas acreage limitation might be desirable. One possible change would be eliminating the requirement for limiting or controlling option holdings on onshore oil and gas leases since the degree of control exercised over a lease by an optionee is minimal. Another possible change to limit speculative holdings in oil and gas leases would be reducing the term of noncompetitive leases from 10 to 5 years.

Phosphate, potash, and sodium acreage limitations

The act and Federal regulations limit the number of acres a person, association, or corporation can hold under a single phosphate, potash, or sodium lease and also limit the total number of acres which can be held in each State or in the entire United States. Pertinent information relating to the statutory or regulatory basis for the limitations and the single-lease and total-lease acreage limitations for phosphate, potash, and sodium are shown in the following table.

	Phosphate	Potash	Sodium
Source of acreage limitation:			
Cumulative	30 U.S.C. 184	43 CFR 3501.1-4	30 U.S.C. 184
Single lease	30 U.S.C. 211(a)	43 CFR 3501.1-4	30 U.S.C. 262
Area included in acreage limitation	United States	Each State	Each State
Cumulative acreage limitation	20,480 a/	76,800 b/	5,120
Single-lease acreage limitation	2,560	2,560	2,560
Acreage exemption--addition to form economic unit	-	-	10,240

a/Total for leases and permits.

b/Leases--25,600 acres; permits--51,200 acres.

On the basis of estimated production data for fiscal year 1975, mineral production on public domain land accounted for about 75 percent of total U.S. potash production, 59 percent of total sodium production, and 8 percent of total phosphate production.

Bureau officials told us that they generally considered that a 40-year supply of phosphate, potash, or sodium was necessary for an economic mining unit--one that permits the producer to recoup its investment and make a reasonable profit. GAO did not evaluate the reasonableness of the 40-year figure; however, the actual number of years needed to recoup an investment depends on many economic factors, such as the rate of return on capital and the supply, demand, and price of the mineral.

Phosphate acreage limitation

The act and Federal regulations provide that no lessee can hold, own, or control at any one time more than 20,480 acres of public domain land under Federal phosphate leases and permits in the United States. There is no individual State limitation. Bureau officials told us that they did not know the basis for the phosphate acreage limitation.

At June 30, 1975, a total of 91,556 acres of U.S. public domain land was under phosphate leases. Under the current

phosphate acreage limitation, a single lessee could control about 22 percent of all the public domain land under phosphate leases. According to Bureau records, as of November 20, 1975, the company holding the largest number of acres in Wyoming or Utah under public domain phosphate leases and permits held 12,628 acres, or 14 percent of the total.

At June 30, 1975, Idaho had 45,095 acres (49 percent) of the total 91,556 acres of public domain land under Federal phosphate leases, and at the time of our review there were pending applications for about 120,000 acres. At the time of our review, 7 firms in Idaho had filed a total of 14 mining plans with Survey covering their proposed mining operations over the next 25 years. The 14 mining plans show that a total of about 13,800 acres will be used for production during the 25-year period. On the basis of the same usage rate, we estimate that about 20,000 acres will be used in 40 years, depending on the quality of the mineral and tons per acre. As of November 1975, these seven firms held 34,337 acres of land in southeastern Idaho under Federal leases and permits.

Potash acreage limitation

The act does not specify a limitation on the total number of acres that can be held under Federal potash leases and permits; however, the Department has issued regulations limiting the total number of acres a lessee can hold in each State--25,600 lease acres, 51,200 permit acres, and 2,560 fringe area acres. Bureau officials could not provide any documentation as to how the specific acreage limitations were established nor did they give their opinion of the appropriateness of the current acreage limitations.

We noted that potash had separate limitations for leases and permits while phosphate and sodium had a combined lease and permit acreage limitation. The potash permit acreage limitation of 51,200 acres appeared to be excessively large on the basis of the number of acres large potash mining operations currently used. We discussed these matters with a Bureau official, but he was unable to tell us why there was a separate limitation for potash leases and permits and why the potash permit acreage limitation was so large in relation to those for phosphate and sodium.

A Bureau official told us that potash-mining operations currently used up to 200 acres a year. At this rate, 25,600 acres of land would be about a 128-year supply, depending on the quality of the mineral and the tons per acre. Whenever

a lessee leases more acres than it needs for its mining operations, it is tying up land that could be leased and developed by someone else.

At the time of our review, the company which held the largest total acreage under Federal potash leases and permits in Utah and Wyoming held about 24,700 acres under leases and none under permits.

Sodium acreage limitation

The act and implementing Federal regulations provide that no lessee hold, own, or control more than 5,120 acres (basic sodium limitation) of public domain land under Federal sodium leases and permits in any one State. However, the act and regulations allow the Secretary of the Interior to permit a lessee to hold up to 15,360 acres of sodium in any one State in order to form an economic mining unit. To receive the extension, the applicant must justify the increase and provide certain information on its non-Federal sodium holdings in the area.

As of July 1, 1975, six firms in Wyoming requested and received increases ranging from 1,620 to 8,503 acres over the basic sodium acreage limitation. Reasons given by the firms for requesting the extensions included:

--The need for more ore to meet expanded requirements.

--The prevention of competitors receiving key tracts.

--The need for large-scale operations,

--The large investment in plants and development.

Furthermore, two of the six firms received the extensions although they had not begun mining operations when the extensions were granted. They have now held leases for 14 and 17 years, respectively, without development. Bureau leases do not require diligent development or minimum royalties based on production, and the leases can be held for long periods at little cost.

Bureau and Survey officials and company representatives told us that, because economic mining of sodium requires sizable mineral deposits, the 5,120-acre limitation was too small and should be increased. For example, one sodium producer in Wyoming uses about 200 acres a year in its mining operations. Consequently, this firm would use 5,120 acres in its mining operations in about 25 years, and an economic mining unit is based on 40 years of operation. Bureau

officials told us they took no action to have the basic sodium limitation of 5,120 acres increased because firms could readily obtain additional Federal acres.

USE OF RESERVES SYSTEM TO LIMIT MINERAL HOLDINGS

Bureau and Survey field office officials told us that acreage limitations were not an effective way to prevent monopoly of phosphate, potash, and sodium because the thickness and quality of mineral deposits varied greatly from State to State and even within a State and because the amount of recoverable minerals (reserves) found in a specific number of acres at two locations could vary tremendously.

In explaining how the thickness of mineral deposits could vary, the Department told a congressional committee that phosphate deposits in Montana were from 3 to 12 feet thick, whereas deposits in Idaho generally were from 40 to 160 feet thick. It added that the surface area, in itself, was not a criterion for the amount of minable phosphate which is found underground.

Bureau and Survey field office officials said that a more equitable and meaningful method of limiting the total amount of a mineral an individual or corporation could lease was to base the limitation on estimated reserves. By using estimated reserves as the limitation, each individual or corporation would be entitled to lease up to the maximum number of tons of minerals that the Bureau established as the limitation. Each lessee could lease as much land as necessary to reach the maximum reserves tonnage limitation.

Bureau and Survey field office officials informed us that it would be feasible to establish a limitation system based on mineral reserves and that it would be possible to effectively enforce such a system.

However, in its April 2, 1976, letter to the Subcommittee, the Department stated that, although substituting reserves limitations for acreage limitations would be theoretically desirable, it would result in artificial distinctions and would be extremely difficult to administer. The Department said that, after an initial reserves assessment and accounting of ownership, it would, under a reserves limitation system, have to make frequent adjustments since reserves assessments were subject to major changes as exploration and development provide more accurate data. Also the Department stated that the quantity of reserves in a given parcel of land fluctuates with the price of the mineral and that reserves would be too volatile to use in

establishing limitations. For the above reasons, the Department did not consider the reserves limitation system to be the most effective way of controlling holdings in federally owned mineral resources. The Department added that the proposed diligent development and advance royalty requirements for potash, phosphate, and sodium, such as those in the Department's proposed regulations for coal, could reduce the importance of the problems and obviate the need for either reserves or acreage limitations.

We believe the Department's diligent development and advance royalty requirements may be attempts to encourage production and perhaps to reduce the opportunity for speculative holdings, but they do little to prevent extensive holdings or monopoly--the primary purpose of acreage limitations. Furthermore, we believe that the Department should have a good knowledge of the amount of reserves in a parcel of land before the Department leases the land. We believe such data is also necessary if the Department is to effectively carry out the diligent development and advance royalty requirements that it is contemplating for potash, phosphate, and sodium. Without adequate reserves data, such requirements would be highly suspect.

We agree with the Department that market demand and prices have an impact on the amount of reserves. However, we believe that the problem of fluctuating prices is not insurmountable. Consequently, we believe the Department should not rule out the use of reserves limitations in making the study on limitations that we are recommending, especially since adequate reserves data is needed to effectively carry out the diligent development and advance royalty requirements.

ACREAGE LIMITATIONS ON SINGLE LEASES

The act and regulations place a 2,560-acre maximum limitation on each phosphate, potash, sodium, and noncompetitive oil and gas lease and a 640-acre maximum limitation on each competitive oil and gas lease. Bureau officials said that the single-lease limitation on these minerals did not prevent monopolization of any of these minerals and it increased the Bureau's costs of administering the leases.

Although the act and regulations limit the maximum acreage, they do not prohibit an individual or corporation from holding leases on contiguous or adjoining lands up to the total maximum acreage allowed. For example, one firm in Utah held 13,000 contiguous acres under six phosphate permits ranging from 1,371 to 2,547 acres.

Bureau and Survey officials said that 2,560 acres was generally insufficient for economic mining of phosphate, potash, and sodium. Consequently, firms must acquire several leases in the same location to form an economic mining unit. For example, two of the three sodium producers in Wyoming each held five leases of about 2,500 acres each and the other firm held three leases of about 2,000 acres each.

In addition, a Bureau official told us that the single-lease acreage limitation was a problem when the Bureau wanted to lease lands competitively for phosphate, potash, and sodium mining, because 2,560 acres might not be large enough to form an economic mining unit.

Assignment of onshore oil and gas leases

The Bureau's practice of allowing lessees to assign oil and gas leases in parcels as small as 40 acres hinders development and increases the Bureau's administrative work. The act allows a lessee to transfer (assign) all or part of the acreage in a lease to another person or company, subject to the approval of the Secretary of the Interior.

The regulations provide that the minimum lease size for noncompetitive onshore oil and gas leases issued by the Bureau on public domain lands is 640 acres, except for small isolated parcels where the total area available for leasing is less than 640 acres. However, the Bureau allows lessees to assign such leases in parcels as small as 40 acres.

Assigning oil and gas leases in tracts of less than 640 acres increases the Bureau's administrative work. For example, one lease was issued for 2,560 acres and later was divided by the lessee into 49 leases. Instead of keeping one set of records and sending out one rental billing, the Bureau must keep 49 sets of records and send out 49 billings.

Assigning oil and gas leases in less than 640-acre tracts also hinders development, because a company planning to explore for and produce oil has to contact a large number of leaseholders to accumulate sufficient acreage. Bureau officials said that most holders of partial assignments were not oil companies but were speculators waiting for an oil company to buy them out at a profit. Company officials told us that long periods, ranging from 3 to 7 years, were required for contacting leaseholders and consolidating an exploratory unit.

A Bureau State office official stated that assigning oil and gas leases in tracts of less than 640 acres

increased the Bureau's administrative work, hindered development, and served no useful purpose to the Federal Government.

EXCLUSIONS FROM ACREAGE LIMITATIONS

The Subcommittee asked us to identify the various methods of exclusion which allowed lessees to hold more acreage than allowed by the specific limitations set by the act and Federal regulations. We directed our review of acreage limitation exclusions primarily to identifying the various methods of obtaining or managing a lease which allow for exclusion of all or part of the acreage in computing an individual's or corporation's holdings for acreage limitation purposes.

Acreage limitation exclusions allow an individual or corporation to legally own or control considerably more acreage than that allowed by the limitation. Some exclusions are provided in the law and some in the Federal regulations. The principal exclusions from the acreage limitations on the minerals included in our review were (1) unit plan of development, (2) fractional interests of one company in other companies' holdings, (3) family holdings, and (4) mining more than one mineral on the same land. These exclusions are discussed below.

1. Unit plan of development. This is an agreement outlining a common plan of development and operation by two or more oil and gas lessees for more economical operations and better conservation practices. The Mineral Lands Leasing Act (30 U.S.C. 226j) allows such agreements and provides that all acreage in a unit plan be excluded from the oil and gas acreage limitation.

In Wyoming about 3.2 million (14 percent) of 22.6 million acres of land leased for oil or gas operations were unitized; in Utah about 0.9 million (6 percent) of 13.9 million acres were unitized. The four companies we analyzed in detail had unitized acreages ranging from 10 to 30 percent of their holdings.

2. Fractional interests of one company in other companies' holdings. The act (30 U.S.C. 184 (e)(1)) and the mineral-leasing regulations provide that an individual or a corporation owning more than a 10-percent interest in a corporation be charged with its proportionate share of the corporation's acreage. As a result, an individual or corporation controlling (51 percent or more of the stock) another corporation having leases also controls the leases but would be charged with only acreage proportionate to its stock ownership.

For example, one parent company owned 52.7 percent of the stock of company A and 100 percent of the stock of company B. For acreage limitation purposes the parent company would be charged with only 52.7 percent (111,298 acres) of the total 211,191 acres held by company A under oil and gas leases and with 100 percent of the 56,500 acres held by company B even though the parent company controlled the two subsidiaries and, in effect, controlled their entire lease acreage. If the total acreage (267,691 acres) held by the two subsidiaries in Utah were charged against the parent company's acreage limitation, the parent company would have exceeded the limitation by 21,614 acres.

In its April 2, 1976 letter, the Department stated that, with the complexities of vertical, horizontal, and conglomerate ownerships--which are common in the mineral industry--establishing ownership for the accounting of acreage holdings could be a difficult task. In this regard, we noted the Bureau does not consistently obtain the exact percentage ownership of one corporation in another and therefore usually cannot make the determination of fractional interest that is required by the regulations.

3. Family holdings. The act (30 U.S.C. 184) and the mineral-leasing regulations permit each member of a family to own, hold, or control up to the maximum number of acres allowed by the limitation. Consequently, a family of five individuals could hold five times the number of acres held by one large corporation which has a single limitation.

For example, the Bureau's billing list indicates that a husband, wife, son, and a corporation wholly owned by the husband had interest in 818 Wyoming oil and gas leases covering about 503,000 acres. The billing list indicates that each family member was within the 246,080-acre limitation. However, the billing list shows only who is billed for the rental on the lease. (See p. 19.) We did not determine the actual number of acres each family member held, because we would have had to review about 40,000 individual leases to make such a determination.

4. Mining more than one mineral on the same land. The act (30 U.S.C. 262) permits sodium to be mined under potash leases and potash to be mined under sodium leases. This provision adds 25,600 acres to the sodium limitation and 5,120 acres to the potash limitation. We noted one firm in Utah that mined sodium under its potash leases.

Leases on State-owned and private lands

Unlike Federal leases, the oil and gas, phosphate, potash, and sodium leases on State-owned land issued by Utah and Wyoming and leases on private land do not have acreage limitations. Consequently holders of Federal leases could be controlling considerably more acres of State-owned and private lands than the acres held under Federal leases. Therefore acreage limitations on Federal leases may be only partial deterrents to monopolization.

CONCLUSIONS

We were unable to find any basis for the specific number of acres used as the current acreage limitations on phosphate, potash, sodium, and onshore oil and gas leases in the act and regulations or to determine their appropriateness.

Although the Department's April 2, 1976, letter stated that there were problems in attempting to avoid speculation and monopolization of mineral resources by using acreage limitations and that acreage limitations did not consider quantity, quality, or cost factors, the Department did not indicate it planned to take any action to change the current acreage limitation system. The Department also stated it did not consider a reserves limitation system as the most effective way of limiting Federal mineral holdings and that proposed diligent development and advance royalty requirements could obviate the need for either reserves or acreage limitations. We believe that the Department's diligent development and advance royalty requirements may be attempts to encourage production and perhaps to reduce speculative holdings, but they do little to prevent extensive holdings or monopoly--the primary purpose of acreage limitations.

In view of the limited amount of information available on the basis for and appropriateness of acreage limitations, we believe the Secretary of the Interior should require the Bureau to study the entire concept of acreage limitations to help in determining whether there is a need for limitations based on acreage or some other measure, such as estimated mineral reserves. The conclusions should be fully and specifically supported and justified. Also if limitations are needed, the Bureau should determine the appropriate type and size.

The Bureau's practice of allowing lessees to assign onshore oil and gas leases in parcels as small as 40 acres hinders development, and increases the Bureau's administrative

work, and serves no useful purpose. We believe the Bureau should determine an appropriate minimum limitation and revise its regulations accordingly.

RECOMMENDATIONS

We recommend that the Secretary of the Interior require the Director, Bureau of Land Management, to:

--Study the concept of acreage limitations to help in determining whether there is a need for limitations based on acreage or some other measure, such as estimated mineral reserves. If so, the Director should determine the appropriate type and size of the limitation for each mineral that the Federal Government leases and recommend to the Congress that the Mineral Lands Leasing Act and the Mineral Leasing Act for Acquired Lands be amended accordingly.

--Determine an appropriate limitation on the minimum size of an oil and gas lease assignment and revise the Bureau's regulations accordingly.

CHAPTER 3

MONITORING COMPLIANCE WITH ACREAGE LIMITATIONS

The Subcommittee asked us to determine the effectiveness of the Bureau's systems for monitoring and insuring compliance with acreage limitations on phosphate, potash, sodium, and onshore oil and gas leases.

The Bureau does not have a system for insuring compliance with the onshore oil and gas acreage limitation and consequently is unable to determine whether individuals and corporations have leaseholdings in excess of the maximum acreage set by law. Bureau officials said they were not enforcing the acreage limitation because of the huge workload and high costs involved with administering the large volume of leases (about 15,000 in Utah and 40,000 in Wyoming) and lease assignments (about 3,600 in Utah and 18,000 in Wyoming) and because of the numerous exclusions which make the limitation meaningless.

The Bureau's Idaho State Office, which is responsible for controlling the nationwide acreage limitation on phosphate leases, was not effectively controlling the phosphate limitation because it was not receiving pertinent data on lease status, such as relinquishments and assignments, from other Bureau State offices.

The Bureau's State offices in Utah and Wyoming were using listings of individual leases--no total shown for each lessee--to control the acreage limitations on potash and sodium leases. The Utah State Office listing did not show the name of the lessees; the only identification was the lease numbers.

ONSHORE OIL AND GAS ACREAGE LIMITATION NOT ENFORCED

The Mineral Lands Leasing Act and implementing Federal regulations limit public landholdings. However, the Bureau is not enforcing the statutory and regulatory provisions. Although the Bureau's oil and gas lease files contain the basic information necessary to control acreage limitations, the Bureau does not have a system which shows the total acreage held by each lessee and consequently is unable to determine whether the lessees have leaseholdings in excess of the maximum permitted by the act and regulations.

In 1968 the Bureau established an automated billing system for all recurring bills, including lease rental payments, in the Bureau's Wyoming State Office and later

extended the system to the other State offices. This system resulted in eliminating the preparation and maintenance of oil and gas acreage control cards and was to be used to control oil and gas acreage limitations, even though Bureau officials recognized at the time the system was established that it was not adequate because it would not accurately show the total acreage held by each lessee. However, they believed that the system gave a close approximation of the acreage held and that it was the best system available, considering the workload and cost involved in controlling the acreage limitation.

We believe the billing system is inadequate for controlling the acreage limitation because it lists only the company or person who is billed for the lease rental payment and does not show other companies or persons who have partial interest in the lease. For example, our analysis disclosed that two companies each had 25 percent interests in a 1,544-acre lease for which a third company was billed. The entire 1,544 acres were charged to the billed company with no disclosure of the other interests. The system also does not (1) show the total amount of acreage owned or controlled by each company or individual, (2) identify companies which are wholly owned or partially owned by other companies, or (3) identify the acreage that is not subject to acreage limitations.

The July 1, 1975, billing list showed that at least 10 companies in Wyoming and 7 companies in Utah were being billed for rental on more than the maximum acreage limitation. However, the Bureau officials in the Utah and Wyoming State offices did not verify whether these companies were, in fact, exceeding the acreage limitation because the Bureau did not have procedures for identifying potential acreage limitation violations. The officials told us that they had not checked for compliance with oil and gas acreage limitations since 1968 in Wyoming and 1965 in Utah because they thought that no lessee was over the limitation.

One reason Bureau officials gave for not controlling the oil and gas acreage limitation was the huge workload and high costs involved with administering the large volume of leases and lease assignments. We noted that the number of leases and lease assignments and related administrative workload could be reduced by increasing the minimum size of a lease assignment. (See ch. 2.)

Overriding royalties not controlled

The Bureau is not controlling overriding royalties relating to onshore oil and gas leases even though the

mineral-leasing regulations (43 CFR 3101.1-5(d) and 3106.4) provide that royalty or other interest payable out of production are chargeable interests for acreage limitation purposes. An overriding royalty is an interest in a lease, stated as a percentage of production value, that is retained when a lease is assigned to another individual or corporation.

The regulations provide that parties owning a royalty or other interest determined by or payable out of a percentage of production from a lease should be charged with a similar percentage of the total lease acreage for acreage limitation purposes. Bureau officials told us they were not enforcing these regulations because very few companies filed the information as the regulations did not require it. For companies submitting the information, the Bureau offices in Utah and Wyoming did not keep the data so that acreage chargeable to each party for acreage limitation purposes could be readily determined.

We reviewed a sample of 45 lease files in Wyoming and Utah and found that 24 leases provided for overriding royalties. The average overriding royalty for each lease was 4 percent in Utah and 5.5 percent in Wyoming. Bureau officials told us that overriding royalties were standard in the oil and gas business and that most leases include them. If overriding royalties were charged to a firm's holdings, its total acreage to be applied against the limitation would increase.

PHOSPHATE, POTASH, AND SODIUM ACREAGE LIMITATIONS NOT EFFECTIVELY ENFORCED

The Bureau was not effectively monitoring the acreage limitations for phosphate, potash, and sodium. The Bureau's Idaho State Office, which is responsible for controlling the nationwide acreage limitation for phosphate leases, was not receiving all the data on changes in lease status, such as relinquishments and assignments from other Bureau State offices, and consequently was not effectively controlling the phosphate limitation. Each Bureau State office is responsible for monitoring the acreage limitations for potash and sodium leases and permits. The Bureau's State offices in Utah and Wyoming were using listings of individual leases--no total shown for each lessee--to control potash and sodium leases. Although it is possible to determine the total acreage held by a lessee by adding the acreage of each lease it holds, we believe this is not an effective system to control potash and sodium acreage limitations, especially if the number of leases increases greatly.

Phosphate acreage control system

The Bureau's Idaho State Office was not effectively monitoring the acreage limitations on phosphate applications, permits, and leases because the acreage control system did not correctly identify the current status of phosphate leaseholdings. Other Bureau State offices were not sending the Idaho State Office current information on applications, permits, and leases because they thought that the billing system was controlling the limitations and that they no longer needed to file changes with the Idaho State Office. The Idaho State Office employee responsible for the control records said she thought there were no changes since nobody had notified her of any. Therefore there were many differences between the total acreage holdings shown for lessees on the Idaho State Office records and their actual holdings.

In September 1975 we reviewed the Idaho State Office's phosphate acreage control records which identified 83 firms with phosphate applications, leases, or permits on public domain land. On the basis of our review at the Bureau's Utah and Wyoming State offices, we knew that the total acreage holdings shown for certain firms were incorrect. We advised the Idaho State Office officials and they contacted the other Bureau State offices in September 1975 and requested information on the current status of phosphate holdings and on future changes in the status of phosphate applications, permits, and leases. In November 1975 we returned to the Idaho State Office to review the updated phosphate control records and related lease files. We found that

--22 firms had been dropped from the control records because they no longer had active holdings,

--24 firms had been added to the control records that had not previously been reported,

--26 firms had had changes in the acreages they held, and

--35 firms had had no changes.

After the Bureau employees updated the records, they discovered that one firm had applied for phosphate permits which, if approved, would have placed it over the 20,480-acre limitation. The Bureau initiated action to correct the situation by informing the applicant that it had applied for more permits than permitted by law. The applicant then rescinded all of its phosphate permit applications in Montana and thus fell within the acreage limitation.

Potash and sodium acreage control system

Officials at the Bureau's Utah and Wyoming State offices said they were using listings of individual leases and permits--no total shown for each lessee--to monitor the State-wide acreage limitations for potash and sodium. Furthermore, the control listing the Utah State Office used did not show the name of the lessees; the only identification was the lease numbers.

To determine the accuracy of the information on the potash and sodium lease listings, we traced all the information shown on the listings to the original lease files. The Utah State Office control listing agreed with the information shown on the individual leases. However, there were many discrepancies between the data shown on the Wyoming State Office control listing and the individual leases. For example, data on 9 of the 44 sodium leases or permits shown on the control listing did not correctly identify the current status of the lease because several lease assignments had not been recorded on the control listing. The Bureau employee responsible for keeping the records said the records were not kept up to date because they were given low priority and because she thought the official acreage control records were being kept by the Denver Service Center. After we brought these discrepancies to the attention of the Bureau employee, she corrected the control listing to show the current status of the leases.

After the Wyoming and Utah State offices' control listings were corrected, we reviewed them to determine whether any lessees held potash and sodium holdings in excess of the acreage limitations and found that none did.

Although such listings can be used to control acreage limitations whenever there is a small number of leases, we told Bureau officials, and they agreed, that a system which readily shows the total acreage held by each lessee would be needed if there were a large increase in the number of leases. Such a system would eliminate the need to total the acres held by a lessee each time it applied for a lease and, for the Utah State Office, it would eliminate the need to go to the individual lease files to determine the owner of each lease.

Because of the energy crisis, the Bureau devoted its attention to energy mineals, causing a large backlog of phosphate, potash, and sodium lease and permit applications in the past few years. For example, in Utah and Idaho there are pending lease or permit applications for about 300,000 acres. Bureau officials stated that these would be acted upon this

year. Bureau officials also told us that any large increase in activity for these minerals in the future would make the present control system inadequate and that they would have to revise the system so that the total acreage held by each lessee would be readily available.

CONCLUSIONS

The Bureau does not have a system for insuring compliance with the onshore oil and gas acreage limitation and consequently does not know whether individuals or corporations have leaseholdings in excess of the maximum acreage limitation set by law. Bureau officials said they did not control the onshore oil and gas acreage limitation because of the huge workload and high costs of administering a large volume of leases and lease assignments.

Although the regulations provide that overriding royalties are chargeable against acreage limitations, the Bureau does not require companies to file overriding-royalty data and does not systematically record data that is filed.

The Bureau's Idaho State Office was not effectively controlling the phosphate acreage limitation because it was not receiving pertinent data on lease status from other Bureau State offices. However, it recently requested the other State offices to submit the necessary data.

The Bureau's Utah and Wyoming State offices were using listings of individual leases to control acreage limitations on potash and sodium leases. Although such listings can be used to control acreage limitations when there is a small number of leases, we believe that a system which shows total acreage held by each individual or company will be needed if there is a large increase in the number of applications, permits, and leases.

RECOMMENDATIONS

We recommend that, if limitations based on acreage or some other measure, such as reserves, are needed and appropriate limitations are established, the Secretary of the Interior require the Director, Bureau of Land Management, to:

--Develop and implement a system to control the limitation for each mineral the Federal Government leases.

--Determine whether it is appropriate to charge overriding royalties against the oil and gas limitation and, if so, take the necessary action to control the overriding royalties.

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COMMITTEE ON INTERIOR AND INSULAR AFFAIRS

U.S. HOUSE OF REPRESENTATIVES

WASHINGTON, D.C. 20515

November 6, 1975

Honorable Thomas S. Kleppe
Secretary
Department of the Interior
Interior Building
Washington, D.C. 20240

Dear Mr. Secretary:

This Subcommittee is presently preparing to make a broad-ranging examination of the entire system of mineral leasing. One of the specific areas we will be examining is that of acreage limitations on lease holdings. To assist us in our examination, we would like your views and comments on the matters presented below.

Under the existing mineral leasing system, acreage limitations are established restricting the amount of Federal land which may be held by any person, association, or corporation. There are specific acreage limitations for individual leases and for total lease holdings allowed in a State or the entire United States. One of the principal purposes of acreage limitations was to prevent speculation in or monopolization of any particular mineral found in publicly-owned lands of the United States.

Some have suggested that surface area, in itself, may not be an adequate criterion for gauging the amount of minable minerals which may be found underground. The amount of mineral deposits can vary greatly from state to state or within a particular state; total mineral reserves in a specific number of acres at two locations can vary tremendously. Therefore, the acreage limitation may have relatively little effect in limiting the amount of minerals controlled by the lessee.

We, therefore, would like your views and comments as to:

- the appropriateness and adequacy of the specific acreage limitations for each lease and for total lease holdings currently in effect for phosphate, potassium, sodium, and onshore oil and gas leases.

- whether there is a continuing need for acreage limitations to prevent monopoly or to accomplish the other significant purposes for which acreage limitations were originally established.

- whether the use of acreage limitations is the most effective way of avoiding speculation in or monopolization of mineral deposits or whether another system, such as a limitation on estimated reserves would be more appropriate for some minerals, especially solid minerals.

In order that we can fully evaluate your comments before upcoming hearings, we would appreciate your views and comments as soon as possible.

Very truly yours,

(sgd) Patsy T. Mink

PATSY T. MINK
Chairperson, House Subcommittee
on Mines and Mining

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UNITED STATES DEPARTMENT OF THE INTERIOR

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

April 2, 1976

Dear Madam Chairman:

This will reply to your letter of November 6 concerning maximum acreage limitations set by the Mineral Leasing Act of 1920.

Present Limitations

Maximum acreage limitations were originally proposed in the Mineral Leasing Act of 1920 to prevent speculation in and to foster competition for Federal leases. Since their initial enactment Congress has regularly changed these limitations to meet new and increasing demands for energy and resources and to take into account advances and improvements in technology.

Federal phosphate holdings are currently limited to a maximum of 20,480 acres within the United States established pursuant to 1964 amendments to the Mineral Leasing Act of 1920. These limitations have changed five times since 1920. Under the original Act, phosphate holdings were limited to one lease per State; revised subsequently, by amendment to the 1920 Act, in 1946 to a maximum of 2,560 acres per State; in 1948 to a maximum of 5,120 acres per State and a maximum of 10,240 acres within the United States; in 1960 to a maximum of 10,240 acres within the United States, and changed in 1964 to the current figure.

No statutory maximum acreage limitation has ever been imposed on Federal potassium holdings. However, Departmental regulations in 43 CFR 3501. 1-4, prescribe a 51,200 maximum acre limitation within the United States, with the additional requirement that no more than 25,600 acres can be aggregated into one or more mining units.

Federal sodium holdings are currently limited to a maximum of 5,120 acres per State, with additional grants of up to 15,360 acres available if needed for the economic mining of the mineral. These figures were re-established

in the Mineral Leasing Act Revision of September 2, 1960. Since 1920 the acreage limitations for sodium holdings have changed three times. Under the original 1920 Act, sodium holdings were limited to one lease per State; revised subsequently, by amendments to the 1920 Act, in 1946 to a maximum of 2,560 acres per State; and changed in 1948 to the current figures.

Federal oil and gas holdings are currently limited to a maximum of 246,080 acres per State except in Alaska where a maximum of 300,000 acres for each of the two leasing districts is permitted. Of this acreage not more than 200,000 in any State, except Alaska where the maximum is 200,000 in each leasing district, may be held under option. The acreage limitation for oil and gas leases has been increased on several occasions. The original limitation in 1920 was three leases in a State and not more than one lease within the known geologic structure of a producing oil or gas field. In 1926 this was changed to 7,680 acres in a State and not more than 2,560 acres in the same known geologic structure. In 1946 the limitation was set at 15,360 acres under lease and 100,000 acres under option in each State. In 1954 the limitation was again changed, and was set at 46,080 acres under lease in any State (or 100,000 acres in the Territory of Alaska) and 200,000 acres under option in any State. The present figures were set in 1960.

With the possible exception of the 5,120 acre restriction on the size of sodium leases, the present acreage limitations for these minerals do not appear to cause the mining industry many problems. Several companies have found it necessary to request increases in their sodium reserve holdings beyond 5,120 acres, but all firms are apparently able to operate within the 15,360-acre limit on additional fringe reserve holdings.

Assessment of the Present Limitations

The specific effect which the acreage limitations for the minerals you mention have had in preventing speculation by limiting individual reserve holdings is difficult to assess.

Maximum acreage limitations may have some effect in placing constraints on the size of individual firms and in some cases on the size of individual mines. Constraining the reserve holdings of the major firms may be partially responsible for the entry of some smaller mining firms into

the market since the reserves necessary to support such mining operations have generally been available. This is difficult to verify, however, and may ultimately have more to do with specific market conditions (e.g., demand, risk, financing).

Regardless of this relative merit, however, there are problems in attempting to avoid speculation and monopolization of mineral resources using this approach, especially where sheer size of the leased area or quantity of minerals mined is irrelevant or where, because of the nature of the enterprise, these limitations are ineffective.

Preventing all speculative holdings of Federal mineral leases by use of acreage limitations alone is basically not possible. The smaller firms whose holdings are below the established limitations could, without other restrictions, speculate within those limits. With acreage limitations large enough to allow large scale efficient mining, which is a characteristic of the mining methods used for many of the minerals under the Mineral Leasing Act, the ability, again without other restrictions, to hold reserves for reasons other than production increases. Many mining companies try to hold leases on the reserves necessary to support potential expansion of their operations. Prudent business practice often dictates holding these reserves since market conditions for many minerals are sufficiently volatile and firms who have such reserves can bring them into production quickly. As a result, many Federal leases have in the past been held for a substantial number of years before they were produced and some leases even reached their 20-year renewal dates before their production began.

Limitations may also distort the pattern of minerals development. If acreage limitations are too low, they needlessly constrain the activities of the larger and more efficient mining operations. To the extent that these larger firms could produce the necessary supply of minerals at a lower cost than the smaller firms, (which due to the acreage limitations actually do the production) the total costs of supplying these minerals are increased.

Acreage limitations, also, do not take quantity, quality or cost factors into consideration. The quality of the mineral resource is often more important than the quantity under lease. Also, the nature of the operation and the cost of production will often determine how much of the mineral resources can be held and developed irrespective of quantity or size limitations.

Likewise a company need not control an entire mineral deposit in order to influence its development. Modern scale mining activities generally require large and contiguous reserves. It may be possible, therefore, for a company to acquire relatively small tracts of land strategically located so as to preclude the mining of surrounding larger areas. In this regard, the Federal Government is often only one of many owners of minerals within an area; and, minerals in non-Federal lands are not subject to the statutory limitations. Thus, it may be possible for a company to "block up" reserves of private minerals, along with a selected pattern of Federal leases, to achieve enhanced market power in some areas.

We would also point out that administration of the Mineral Leasing Act's restrictions on the acreage any individual may hold has been difficult. The restrictions on association or stockholder interests (30 U.S.C. § 184) make it clear that the Congress intended that the acreage limitations should not be circumvented by formation of subsidiaries to hold and develop a large company's Federal mineral leases. Thus, it is necessary to examine the corporate "blood lines" of all lease applicants and all parties involved in assignments of Federal minerals leases to discover the actual ownership. Partial owners having more than a 10 per centum beneficial interest are charged for their proportionate share of the acreage. With the complexities of vertical, horizontal and conglomerate ownership which are common in the minerals industry, establishing corporate ownership for the accounting of acreage holdings can be a difficult task. Additionally, some lessees negotiate with mining companies to operate their leases rather than assigning their leases. Many of these contracts for operation of leases, especially oil and gas leases, are operating interests only and the size of these operating interests can be very small. It has not been possible to keep track of these transactions because of the frequency with which such transactions are made. Thus, through operating agreements with Federal lessees it is possible for large firms to have at least partial control over Federal minerals leases in excess of the acreage limitations.

Reserve Limitations

While substituting reserve limitations for acreage limitations, as suggested in your letter, would be theoretically desirable, it would, as a practical matter, result in artificial distinctions and be extremely difficult to administer.

After an initial reserve assessment and accounting of ownership, the Department would, under a reserve limitations system, have to make frequent adjustments since reserve assessments are subject to major changes as exploration and development provide more accurate information. Generally the initial level of detailed geologic information is insufficient to adequately assess the recoverable reserves in any given tract; and, as more detailed geologic information becomes available such information still would be subject to varying interpretations by geologists and engineers.

Also, the reserve estimates is a dynamic concept, closely tied to market economics. For example, as all ore bodies are not of uniform quality and as mining costs vary according to the quality of the ore body, market demand and price often determine what is or is not reserve (i.e., waste at one price might be reserves at another). Thus, the quantity of reserves is affected by market conditions, especially fluctuations of commodity prices, and would be too volatile to use in establishing limitations.

For these reasons, we do not, at this point, consider the reserve limitations system as the most effective way of controlling holdings in federally owned mineral resources.

Alternatives to acreage or tonnage limitations

The diligence and advance royalty requirements, such as those in the Department's proposed regulations for coal, could reduce the importance of these problems and obviate the need for either reserves or acreage limitations. The Department of the Interior recently published for comment regulations which provide explicit criteria for judging whether coal lessees have met the statutory requirements (30 U.S.C. § 207) for diligent development and continuous operation. If these regulations are finalized in the form they were published for comment, they would require holders of Federal coal leases, as evidence of diligent development, to have produced at least 2 1/2 per centum of the reserves contained in their logical mining unit before the tenth anniversary of their lease or the date of the regulations whichever is later. The criterion for continuous operations is equally as explicit, i.e., production of at least one per centum of the logical mining unit reserves each year. To provide an alternate incentive for prompt and orderly development of Federal coal leases, the Department will place in all new coal leases and all renewed leases, in lieu of the requirement for continuous

operations, provisions for the payment of advance royalties according to a production schedule which would exhaust the Federal coal reserves in a logical mining unit within 40 years. With these advance royalties, the costs of holding non-producing coal leases will increase substantially.

Section 30 of the Mineral Leasing Act (30 U.S.C. § 187) provides that all Federal minerals leases shall "contain provisions for the purpose of insuring the exercise of reasonable diligence, skill, and care in the operation of said property . . .". Additionally, the Mineral Leasing Act (30 U.S.C. § 212 and § 283) requires that leases for phosphate and potash be conditioned upon a minimum annual production or the payment of a minimum royalty in lieu thereof. By regulation (43 CFR 3503.3-2(b)(2)) the Department has applied this concept of minimum annual production or payment of a minimum royalty in lieu thereof to leases for sodium and sulphur. Thus, even though the statutory language is slightly different from that used for coal, it should be possible to develop diligence and "advance royalty" provisions for the other Mineral Leasing Act minerals. The Department, through the Geological Survey, is now conducting a study of the need for diligence and advance royalty provisions for minerals other than coal. This study, which will likely be completed before the end of 1976, should enable the Department to evaluate the efficiency of applying definite diligence and minimum royalty provisions to these minerals. Regulations to require diligent development and payment of minimum royalties in lieu of minimum production, if warranted, would provide a means of constraining speculative holding of leases for these other minerals by increasing the cost of holding undeveloped Federal leases so that companies will not tie up Federal lands for speculative purposes.

Useful Changes

However, some changes in the law prescribing what acreage is chargeable against the current acreage limitations prescribed for onshore oil and gas leases may be desirable. For example, section 27(d)(1) of the 1920 Act (30 U.S.C. 184) presently includes option holdings in the aggregate limitation for onshore oil and gas. One possible change would be the elimination of the requirement for limiting or controlling option holdings since the degree of control exercised over a lease by an optionee is minimal. Another possible change to limit speculative holdings in oil and gas leases would be to reduce the term of the non-competitive leases from 10 years to five. These leases have no

mandatory requirements for development and may be held for their full term merely by payment of annual rentals. Such leases may be extended only by drilling on the last day of the lease term, by production in paying quantities from the leasehold, or by commitment to a unit plan of operation.

We hope this information is helpful.

Sincerely yours,

(sgd) William W. Lyons

Deputy Under
Secretary of the Interior

Honorable Patsy T. Mink
Chairman, Subcommittee on
Mines and Mining
Interior and Insular Affairs Committee
House of Representatives
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