121359

BY THE COMPTROLLER GENERAL

Report To The Congress

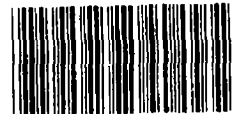
OF THE UNITED STATES

Analysis Of The Powder River Basin Federal Coal Lease Sale: Economic Valuation Improvements And Legislative Changes Needed

At sales in April and October 1982, the Department of the Interior sold Powder River Basin coal leases in Wyoming and Montana for $67 million. Although these prices were only $3.5 million less than Interior's original estimates of their value, they were roughly $100 million less than GAO's revised estimates of fair market value. GAO made these revisions using Interior's estimating approach and correcting for several inappropriate adjustments.

The Secretary of the Interior may wish to reconsider Departmental determinations and cancel leases for which fair market value was not received. GAO recommends that the Secretary postpone scheduled regional coal sales until the Department strengthens its procedures for determining the fair market value of Federal coal.

Prevailing statutes assume all leases are competitive and do not recognize that much of the coal is essentially captive to existing producers. In trying to sell such leases competitively, the Government realizes a less-than-reasonable return for Federal coal. To remedy this situation, GAO recommends that the Congress amend the Mineral Lands Leasing Act of 1920 to authorize Interior to negotiate the sale of leases in appropriate cases.



GAO/RCED-83-119

MAY 11, 1983

025778

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

B-208410

To the President of the Senate and the
Speaker of the House of Representatives

Overseeing the management of our Nation's wealth of natural resources--including huge western coal deposits--is a high priority concern to the Congress. This report evaluates many sensitive and controversial issues surrounding the April 28, 1982, sale of coal leases in the Powder River Basin Federal Coal Region and its implications for the overall success of the Federal Coal Management Program. It was requested by Edward Markey, Chairman, Subcommittee on Oversight and Investigations, House Committee on Interior and Insular Affairs, and Senator Max Baucus.

We did not obtain written Department of Interior comments on a draft of our report. However, Interior officials were briefed on the issues covered in the report and their views have been included as appropriate.

Copies of the report are being sent to the Director, Office of Management and Budget, and to the Secretary of the Interior.

Charles A. Bowsher
Comptroller General
of the United States

COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

ANALYSIS OF THE POWDER RIVER BASIN FEDERAL COAL LEASE SALE: ECONOMIC VALUATION IMPROVEMENTS AND LEGISLATIVE CHANGES NEEDED

D I G E S T

On April 28, 1982, the Department of the Interior held the largest Federal coal lease sale in America's history. It offered 13 coal tracts for competitive leasing, about 1.6 billion tons of coal reserves in the Powder River Basin of Wyoming and Montana--receiving bids for 11 tracts totaling $54.7 million, but accepting bids for only 10 tracts totaling $43.5 million. The $11.2 million bid for the Rocky Butte tract was rejected because it was less than fair market value. Although the Department considered the sale a success, both its preparations and outcome have been seriously questioned by Members of Congress, industry, environmentalists, and the media. Two lawsuits have been filed--and are pending--challenging the legality of the sale.

In May 1982, Chairman Edward J. Markey, Subcommittee on Oversight and Investigations, House Committee on Interior and Insular Affairs, asked GAO to review the sale to (1) check for violations of law or standards of conduct stemming from allegations of an unauthorized disclosure of proprietary coal data by Interior employees, (2) examine the basis for a last-minute Departmental decision to change the bidding system for selling the leases, and (3) determine whether or not the public received fair market value for its coal.

In June 1982, Senator Max Baucus joined Chairman Markey as a co-requestor. They later expanded their request to include detailed evaluations of (1) the lease valuation methods used by Interior's economic evaluation team, (2) new Interior coal leasing regulations published on July 30, 1982, and (3) an October 15, 1982, followup Powder River coal sale at which two leases, including the one on which a bid was rejected at the April sale, were sold for $23.7 million.

GAO/RCED-83-119
MAY 11, 1983

INTERIOR'S ALLEGED DISCLOSURE OF ITS PROPRIETARY COAL PRICE DATA

In May 1982, just after the sale, coal trade publications and major newspapers reported allegations of an unauthorized disclosure--by unknown parties within the Department of the Interior--of proprietary coal lease valuation data. The alleged disclosure reportedly occurred before the sale. The published articles linked the disclosure to (1) possible attempts by coal companies to pressure Interior into lowering its estimates of the value of the coal leases and (2) an eleventh hour change of bidding systems, resulting in a more than $46 million reduction in Interior estimates of lease values for the 19 tracts originally planned for inclusion in the sale. (For the 11 tracts for which bids were actually received at the sale, the reduction was about $17.5 million.)

GAO found a March 26, 1982, Interior internal memo asserting the possibility that such a disclosure occurred and evidence that proprietary data was not properly safeguarded by Interior field offices. In addition, Interior did not investigate the possible improper handling of the data and its potential impact on the forthcoming sale. As a result, sale controversy arose when the alleged disclosure was publicized.

GAO was unable to verify details related to the alleged disclosure or to confirm that it had an impact on preparations for the April sale. (See ch. 2.)

INTERIOR'S BASIS FOR CHANGING LEASE SALE BIDDING SYSTEMS

In 1982, Interior made two major changes in its coal lease sale bidding systems, both consistent with the Department's desire to lease in a manner permitting fair market value to be determined after, rather than before, a sale. For the April Powder River sale, the change to an experimental "entry level" bidding system required participants to submit sealed bids. Bidding generally began at levels set well below the estimated value of individual tracts. When two or more sealed bids were received for an

individual tract, oral bidding followed and the highest bidder was awarded the lease. This process replaced the previous system of publishing presale estimates of coal value, or "minimum acceptable bids." The change to the entry level bidding system was prompted by Departmental concerns over a possible reluctance by industry to bid if Interior set minimum acceptable bid values as under the previous system. Interior believed these values would have been too high--under existing market conditions--to encourage the level of industry participation desired.

The October followup sale featured yet a different approach whereby a participating coal company would be allowed only one bid. Referred to as sealed "minimum" bidding, this system was based on another premise--that coal companies, if allowed only a single sealed bid, would offer their highest bid to gain the lease.

For the April sale, Interior had no records documenting, and could provide no written quantitative basis supporting the need to change the system, just 6 weeks prior to the sale. In addition, GAO found that the entry level system used did not work as envisioned. Bidder participation was minimal--8 of the 11 tracts bid on received only one bid, the other 3 tracts each 2 bids. Moreover, the value of tracts was not "bid up" as expected. Bids for the 11 tracts exceeded the entry level bid minimum by only $2 million, falling $15 million short of Interior's original estimated value of $70 million.

In addition, the October followup sale offered little indication of the worth of Interior's "minimum" bidding concept, since only two tracts were offered and each attracted, as expected, only one bidder. As with entry level bidding, minimum bidding theory requires an active bidding interest in tracts to ensure honest "best" bids.

Notwithstanding the problems associated with the change to the entry level bidding system, accepted bids at the April and October sales, combined, totaled $67.2 million for 12 tracts, compared to Interior's original minimum acceptable bid estimates of $70.7 million. (See ch. 3.)

INTERIOR CRITICISMS OF THE COAL LEASE VALUATION METHODS OF THE REGIONAL ECONOMIC EVALUATION TEAM

As noted above, Interior changed its bidding system for the April sale, scrapping the original estimates of lease value calculated by the Department's regional economic evaluation team, on the basis these estimates were too high. Interior officials told GAO they believed deficiencies in the valuation methodology employed by the team were the cause of the high values. GAO found, however, that the criticisms of Interior officials were not based on analysis or otherwise justified.

Estimating the value of a Federal coal lease is at best a difficult process. Substantial amounts of comparative sales data are normally required before sound estimates can be developed. The most reliable data come from past competitive Federal coal sales in the same region, but data from State or private sales can also provide good indicators of lease value. In addition, recent arm's length transactions between unaffiliated parties in the private assignment market where Federal, State and private leases change hands are also reliable data sources.

In this case, data from competitive Federal sales in the Powder River Region were lacking because of a Federal coal leasing moratorium dating from 1971. In addition, no data on State leases could be obtained, although the regional team did obtain data on a Federal lease tract sold in the assignment market in July 1980. But more data were needed.

Without sufficient sales data, Interior's regional economic evaluation team resorted to modeling a hypothetical Powder River mining operation, simulating the effect differences in physical mine characteristics and coal quality would have on lease values, thus simulating sales data. Differences in coal heat values (Btu ratings), sulfur content, reclamation and surface purchase costs, stripping ratios, production rates, small business tax effects, etc., were simulated. The team then developed equations describing how differences in the various

characteristics would affect lease value. These equations were used to compare the Powder River Basin lease sold privately in 1980 to the Federal leases being offered in 1982.

GAO believes the approach used by the evaluation team, although imperfect and in need of some adjustment, was reasonable under the circumstances and provided a technically sound basis for estimating the fair market value of Powder River tracts. GAO revised the evaluation team's calculations to eliminate the effect of inappropriate factors--designed to reflect economies of scale associated with different-size mining operations, small business tax effects--and an improper policy of reducing the value for certain small tracts.

GAO revised the calculations because the evaluation team (1) could not demonstrate that an adjustment to reflect varying economies of scale was needed, (2) agreed that the small business tax effect adjustment should not have been made except in one case involving a small business set-aside tract, and (3) agreed that its policy of reducing the value of certain small tracts was inappropriate. Interior subsequently discarded this policy. Interior officials themselves had earlier identified the first two adjustments as speculative, thinking they were the reason why the regional team's original lease value estimates were so high. GAO found, however, that instead of making the estimates too high, the inappropriate adjustments and the other reduction made the estimates too low--undervaluing the 11 tracts in the April sale by $95 million.

INTERIOR'S DETERMINATION OF FAIR MARKET VALUE

In addition to the presale weaknesses discussed above, GAO found weaknesses in the fair market value determination procedures used after the April sale and similar weaknesses in the procedures used after the October sale. Both sets of procedures were unclear and overly dependent on data derived from the sale itself, which--absent competition--is not an appropriate measure of fair market value.

Under the Mineral Lands Leasing Act of 1920, as amended by the Federal Coal Leasing Amendments Act of 1976 [30 U.S.C. 201(a)(1)], the Secretary

of the Interior must award coal leases by competitive bidding (except incident to certain right-of-way permits under a 1978 amendment) and cannot accept any bid which he determines to be less than fair market value. He has substantial discretion in this matter because determining lease value is inherently imprecise.

The "fair" element of the term "fair market value" applies to the method for determining market value. In the case of coal leases, it need only reflect the tract's value at the time and place of the sale--fairly determined. Thus, the method utilized by the Secretary of the Interior to determine the market value of the lease must be suitable for this purpose--and reasonably assure fair market value was obtained.

GAO, however, found substantial weaknesses in Interior's method (procedures) for determining market value. Interior's method relied heavily on using data from the sale itself--anticipating genuine competition. Conceptually this approach might have worked if enough tracts had brought competition. Unfortunately, this was not the case. Of the 11 tracts receiving bids in April, 8 received only 1 bid each, and the other 3 only 2 bids.

Absent genuine competition, Interior's procedures offered little assurance that fair market value was attained. GAO therefore used the regional economic evaluation team's estimates of tract value--revised to eliminate the effect of the two inappropriate adjustments and the other reduction discussed above--as a yardstick for measuring whether or not the bids should have been accepted as fair market value. Comparing bids offered at the two sales against these revised estimates, GAO found that only 1 of 13 bids for the two sales was clearly acceptable, while two others--though questionable--may have been acceptable under the circumstances. In summary, Powder River coal sold at roughly $100 million less than GAO's revised estimates of fair market value at the April and October sales. (See ch. 5.)

NEED FOR LEGISLATIVE CHANGE

GAO believes many of Interior's problems stem from the leasing dilemma it faces rather than

from its adminstrative practices. The manner in which the Government leases coal does not always match the way industry develops the resource. The Government attempts to sell every lease by competitive bidding, even when it knows that much of the coal is situated in areas that can only be mined by one company. Production maintenance leases, for example, are designed to sustain operations at ongoing mines and are not intended to be part of a new mining operation.

For all intents and purposes production maintenance leases are noncompetitive, but because prevailing statutes require competitive lease sales and receipt of fair market value, Interior cannot legally recognize the role these leases play in actual coal development patterns. As a result such leases are underpriced in competitive sales because they are worth little to companies other than the one whose mining operation they are designed to sustain. Not suprisingly they generally do not attract competition--usually receiving only one bid. More importantly, however, unless priced and/or sold differently, it is unlikely that the bids for these leases will represent fair market value which could be otherwise obtained, or a reasonable return. (See ch. 6.)

Of the 11 tracts receiving bids at the April sale, 6 were maintenance tracts. In addition, one of the two tracts sold at the October sale was a maintenance tract. Of these seven maintenance tracts, six attracted one bidder, and one attracted two bidders. Based on an analysis of the bids for these tracts against GAO's estimates of their value, none of the tracts sold at fair market value.

RECOMMENDATIONS TO THE CONGRESS

To remedy conflicts between the manner in which the Government leases and industry develops Federal coal, GAO recommends that the Congress amend the Mineral Lands Leasing Act of 1920, as amended by the Federal Coal Leasing Amendments Act of 1976, to authorize Interior to negotiate noncompetitive--maintenance--leases as a means of assuring a reasonable return to the Government for leased coal. Appropriate controls over the negotiation process are also being recommended to assure protection of public and industry interests.

RECOMMENDATIONS TO THE SECRETARY OF THE INTERIOR

GAO believes that Interior received less than fair market value for the Powder River leases sold. The issue of whether Interior obtained fair market value for Powder River coal leases ultimately may be resolved in the courts as a result of lawsuits challenging the sale's legality. During the interim, however, the Secretary of the Interior may wish to reconsider the Departmental methods and determinations--in light of GAO's findings--and cancel those leases for which fair market value was not obtained.

To ensure that fair market value is received for competitively sold leases and--if authorized--a reasonable return is negotiated for noncompetitive leases, GAO recommends that the Secretary not resume coal leasing until Interior corrects deficiencies in its valuation, leasing, and fair market value determination procedures. The Secretary should direct the Bureau of Land Management to establish Bureau-wide procedures for safeguarding proprietary information, including lease valuation data.

No agency comments were obtained on this report. However, the technical results of our evaluation were discussed in detail with senior Department of the Interior officials.

Contents

		Page
DIGEST		i
CHAPTER		
1	INTRODUCTION	1
	Background	1
	Controversy related to sale	3
	Objectives, scope, and methodology	5
2	ALLEGATIONS THAT A DISCLOSURE OF PROPRIETARY DATA COMPROMISED THE APRIL SALE COULD NOT BE SUBSTANTIATED	8
	Minimum acceptable bids not safeguarded prior to April sale	8
	Circumstances relating to the alleged disclosure difficult to document	10
	Disclosure not investigated before sale	11
3	CHANGE TO ENTRY LEVEL BIDDING UNTIMELY AND INEFFECTIVE	13
	Bidding systems used in Federal Coal Management Program prior to March 1982	14
	Major changes in bidding systems implemented in only 6 weeks	17
	Minimum bidding used at October 1982 followup sale	23
4	INTERIOR'S CRITICISMS OF COMPARABLE SALES ANALYSIS UNWARRANTED, BUT IMPROVEMENTS ARE NEEDED	26
	Criticisms of regional team's comparable sales methodology unwarranted	27
	Improvements needed to better account for production rate differences and tax effects	33
	Questionable policies cut tract values and set lease prices too low	37
5	DID POWDER RIVER COAL TRACTS SELL AT FAIR MARKET VALUE?	44
	The Secretary's responsibility	44
	The Secretary's discretion	45
	Postsale procedures did not provide a sound basis for determining fair market value	46
	Analysis of experimental and interim postsale fair market value determination procedures	46
	Most Powder River tracts sold for less than fair market value	56

CHAPTER Page

6 HOW REASONABLE ARE THE COMPETITION AND FAIR MARKET VALUE REQUIREMENTS OF CURRENT LEASING LAW? 64
Summary of the Federal Coal Management Program 64
Disparities between coal leasing and development 67
Coal development patterns reflect demand for coal production 69
Analysis of coal leasing options 71
Strong controls--key to successful lease negotiation program 74

7 CONCLUSIONS AND RECOMMENDATIONS 77
Recommendations to the Congress 78
Recommendations to the Secretary of the Interior 78

APPENDIX

I May 10, 1982, letter from Representative Edward J. Markey 80

II June 23, 1982, letter from Senator Max S. Baucus 81

III Analysis of actual selling price versus $0.01 and $0.02 per ton selling price--Powder River tracts offered at $25 per acre 83

IV Revisions to the regional economic evaluation team's comparable sales analysis 84

V Public and internal comments on new Minerals Management Service coal lease sale procedures 89

VI Status of lawsuits related to the Powder River Federal Sale 91

VII Glossary 92

ABBREVIATIONS

Btu	British thermal unit
DCF	discounted cash flow
EIS	Environmental Impact Statement
FCLAA	Federal Coal Leasing Amendments Act of 1976
GAO	General Accounting Office
MAB	minimum acceptable bid

CHAPTER 1

INTRODUCTION

The Powder River Basin Federal coal lease sale of April 28, 1982, was the largest in history. At the sale the Department of the Interior offered about 1.6 billion tons of recoverable Federal coal reserves for competitive leasing in southeastern Montana and northeastern Wyoming, received bids totaling a record $54.7 million, and accepted bids of $43.5 million. Although the Department considered the result a success, both the preparations for the sale and its outcome were controversial. Interior's leasing of so much coal in the apparent "soft" coal market and whether a fair return was received for the coal leases have been questioned. A last minute change in sale procedures and allegations of an unauthorized disclosure of proprietary data that may have compromised the bidding process, among other things, have added to the controversy. In addition, two lawsuits were filed--and remain pending--challenging the legality of the sale.

BACKGROUND

The Powder River Basin contains coal reserves estimated at about 142.5 billion tons, occurring in thick, closely spaced beds generally along the course of the Tongue and Powder Rivers. The concentration of coal in the region is greater than that of any other area of comparable size in the United States. Powder River coal accounts for about two-thirds of total western coal reserves. About 80 percent of the coal in the region is federally owned and it lies under surface lands that are about 73 percent privately owned.

The thickness of the Powder River Basin coal beds--in some places over 100 feet--is unsurpassed anywhere in the country. About 40 percent of the coal lies at depths suitable for large surface mining operations. The coal is sub-bituminous, low in sulfur content, and rated at 8,000 to 9,000 British thermal units (Btus) per pound.[1] Produced coal is marketed by rail to utilities and other customers in the West, Midwest, and Southwest.

An April 1982 Powder River Basin regional coal lease sale was planned as part of the Federal Coal Management Program established in June 1979. Under the program, Interior set a goal of 1.5 billion tons of Federal coal to be leased in three western regions in 1981 and 1982. Powder River Basin tracts to be offered were determined by a long process of land use planning--and then specific sale or "activity" planning--dating from the 1970s. This

---

[1]Btu--a measurement of the heat-producing potential of coal; one such unit equals the amount of heat required to raise the temperature of one pound of water one degree Fahrenheit.

process was designed to include several interests--Federal, State, local, and private sector--in leasing decisionmaking. (See ch. 6.) The Bureau of Land Management, Department of the Interior, screened the region for areas of high development potential, environmental stability, preferred mining use by the surface owner, and higher value for mining use than for other uses. Activity planning occurred in 1980 and 1981, undertaken by a Regional Coal Team made up of Bureau field staff and Wyoming and Montana State officials. This planning included tract delineation (determination of exact location and size of new leases), ranking, and selection.

On February 22, 1982, culminating land use and activity planning, the Secretary of the Interior made the final decision to offer about 2.5 billion tons of coal in the basin at the sale. To be included were 19 coal tracts, 8 in Wyoming and 11 in Montana. Of the 19 tracts offered, 9 were classified as production maintenance or bypass tracts and 10 were considered opportunities for new production to occur.[2] Although only the new production tracts could be considered competitive tracts, Interior was required to offer all 19 by means of competitive bidding, in accordance with the Federal Coal Leasing Amendments Act of 1976.

One of the 10 new production tracts offered, adjacent to an existing small mine, was offered as a small business set-aside.[3] Four others were involved in an intertract bidding procedure whereby the two tracts receiving the highest bids among the four would be leased. Before the sale was held, however, 6 of the 19 tracts were withdrawn--5 new production tracts because surface owner consents (permission to mine) had not been filed and 1 maintenance tract because of an error in published resource data. Because three of the tracts entered under intertract bidding were removed, that procedure was eliminated for the sale. On the date of the sale, five new production and eight production maintenance tracts were offered.

On April 28, 13 tracts totaling 1.6 billion tons of reserves were offered. As shown in table 1-1, bids of $54.7 million were received on 11 of 13 tracts. The $11.2 million bid for the Rocky Butte tract was rejected, however, because it did not meet Interior's fair market value criteria (discussed in ch. 5). Thus, the total accepted bids were $43.5 million.

---

[2]Maintenance coal is needed by an existing mining operation to maintain production and employment levels. A bypass tract is one which can be economically mined around if no lease is awarded. Once bypassed, it is highly unlikely the Federal coal will ever be recovered.

[3]Under the Federal Coal Management Program, Interior may restrict competition for certain leases to bidders who qualify as small businesses as determined by the Small Business Administration.

Table 1-1

Powder River Sale Results
April 1982

Tract	High bids Total (millions)	$/Acre	Cents/ ton
Wyoming:			
*South Duck Nest Creek	$ 3.61	$ 3,125	2.5
Keeline	1.62	500	0.9
*Little Rawhide Creek	7.42	14,000	8.2
Rocky Butte (note a)	11.17	2,300	2.5
Spring Draw	25.90	7,025	8.0
Montana:			
Coal Creek	.35	340	0.6
*Colstrip A&B	.04	26	0.1
*Colstrip C	.02	26	0.1
*Colstrip D	.06	26	0.1
Cook Mountain	4.45	2,123	2.5
*West Decker	.02	500	0.4
*North Decker	-	-	-
*Spring Creek	-	-	-
Total bids	$54.66	b/$2,553	b/3.6
Total bids accepted	$43.49		

*Maintenance tract.

a/Bid not accepted by Interior.

b/Average.

On October 15, 1982, a followup sale was held to offer tracts that were withdrawn from the April sale due to resource data errors or as a consequence of unfiled surface owner consents. In addition, the Rocky Butte tract was reoffered. Though five tracts were originally scheduled to be offered at the followup sale, only two tracts--Rocky Butte and Fortin Draw, both in Wyoming--were put up for sale. They brought total accepted bids of $23.7 million. From both sales, in addition to 12 accepted bids totaling $67.2 million, the Government will collect an annual rental on issued leases of $3 per acre and a royalty of 12.5 percent of the value of coal produced.

CONTROVERSY RELATED TO SALE

Many issues surround the preparation for, conduct of, and outcome of the Powder River sale in April and the small followup

sale in October. The most immediately apparent of these are: Why did Interior change bidding systems just before the April sale? Did an unauthorized disclosure of Interior's proprietary coal data occur before the sale, and if so, what is its significance? Did the sale outcomes in April and October represent a fair dollar return to the Government?

Events related to these issues are summarized as follows: On March 19, 1982, Interior decided to institute a new bidding system for the April sale. This system was new for coal leasing, though it was related to procedures used in conducting Alaskan National Petroleum Reserve oil and gas lease sales. Under the new system, Interior eliminated the practice of publicly announcing Departmental estimates of coal tracts' values--values used as official "minimum acceptable bids"--prior to a sale. Instead, "entry level bids" not necessarily representing fair market value were to be announced, on the premise that fair market value would be determined after the sale outcome when actual competitive value could be better judged. The switch to entry level bids lowered the amounts required to open bidding on 19 tracts by about $46.8 million, from $117.4 million in minimum acceptable bids to $70.6 million.[4] The switch was widely interpreted--or misinterpreted in the view of the Department--as a substantial devaluation of the coal.

The reduction came under public scrutiny in May, just after the first sale, when Members of Congress voiced concerns about the sale and the national print media reported that lowering the values might have been related to an unauthorized disclosure in March 1982 of the minimum acceptable bid estimates of Interior's Minerals Management Service. Under the change of bidding systems, these estimates were not published by the Department. Although the particulars of the reported disclosure were unclear, the alleged release of data raised the question of whether coal industry officials gained access to this data and then pressured Interior to devalue the Powder River coal just before the sale. Interior received letters of inquiry from Members of Congress related to the sale, and in July 1982 congressional hearings on the sale were held.

Litigation challenging the sale was filed in April 1982 and is pending in the United States District Court in Montana. In one of two cases consolidated for trial, the National Wildlife Federation, the Northern Plains Resource Council, the Montana Wildlife Federation, and the Powder River Basin Resource Council allege that fair market value was not obtained for 8 of the 11 tracts bid on. If successful, the suit may result in cancellation of leases awarded for these tracts. See appendix VI for a summary of the status of lawsuits relating to the Powder River sale.

---

[4]Figures corrected for resource data errors, as discussed on p. 17.

For the followup sale of two Powder River tracts in October 1982, bidding procedures again changed, in line with new Bureau of Land Management coal regulations published on July 30, 1982. These regulations were the result of Departmental streamlining aimed at simplifying the administration of the process of exploring for and developing Federal coal. Postsale fair market value determination was retained under the new regulations, but oral and entry level bidding were replaced by single sealed bidding based on "minimum bids" set according to the nature of the tracts offered--new production or maintenance. This second change of bidding systems within a few months led to continuing questions among coal industry observers and others about Interior's rationale for its new procedures for offering coal for competitive leasing.

OBJECTIVES, SCOPE, AND METHODOLOGY

On May 10, 1982, Edward J. Markey, Chairman, Subcommittee on Oversight and Investigations, House Committee on Interior and Insular Affairs, requested that we review the major issues surrounding the April 1982 Powder River sale. He specifically requested that we look at:

--Possible violations of law or standards of conduct associated with allegations of an unauthorized disclosure of proprietary coal price data.

--The basis for the Departmental decision to change bidding systems.

--The question of whether or not "the public will receive fair market value for its coal in the Powder River Basin * * *."

Subsequently, Senator Max S. Baucus joined in the Chairman's request. (See apps. I and II, respectively.)

On August 26, 1982, as requested by the Chairman's office, we expanded the scope of our review to (1) evaluate the outcome of the Powder River sale on October 15, 1982, (2) account for new streamlined Bureau of Land Management coal leasing regulations issued on July 30, 1982, and interim Minerals Management Service sale procedures implementing the regulations, issued for public comment on September 13, 1982, and (3) monitor the progress of pending lawsuits. We also agreed to perform a detailed technical verification of the original coal value estimates developed for the April sale by Minerals Management Service field staff, in order to assess the validity of these estimates.

We conducted our review at Interior, Bureau of Land Management, Minerals Management Service, and Office of Policy Analysis headquarters offices in Washington, D.C., and Reston, Virginia. We also visited the Service's North Central Regional Office in Casper, Wyoming, and Bureau of Land Management State Offices in

Cheyenne, Wyoming, and Billings, Montana. We interviewed agency officials in these offices and reviewed agency documents, correspondence, and files related to the Powder River sale. We also obtained the views of coal industry spokesmen related to the sale. In addition, we contacted representatives of coal companies that either bid on or expressed interest in bidding on tracts offered at the sale.

Our review methodology, encompassing the expanded review scope, was as follows. Regarding possible unauthorized disclosure of proprietary information, we (1) reviewed available headquarters and regional office program correspondence files and (2) contacted officials within the Department, media representatives, and coal company representatives, seeking their views and any pertinent documentation regarding how and when the disclosure may have occurred, who may have been involved, and the impact on the April sale. Our analysis was limited by a lack of written documentation related to the alleged disclosure.

Our methodology regarding the changes in bidding systems included an attempt to understand the context of these changes--Interior's recent experience with coal valuation and bidding systems, its theoretical bases for these systems, and its streamlining efforts. We analyzed the system eliminated just before the April sale, as well as the new systems used at the April and October 1982 sales, and drew conclusions about the strengths and weaknesses of these systems and about Interior's rationale for changing systems.

Regarding the fair market value question, we examined the legal and economic factors included in Interior's leasing policies and procedures. We focused on the comparable sales analysis methodology used for both the April and October sales by the Service to (1) develop presale estimates of coal tracts' value for pricing purposes and--after the sale--(2) determine whether bids should be accepted as representing fair market value. As part of this work, we performed a detailed technical verification of the coal lease valuation methodology employed by the Service's regional evaluation team. With technical assistance from our Institute for Program Evaluation, we evaluated the team's methods in light of the specific criticisms voiced by Interior headquarters and identified needed improvements. Revised estimates of value for the tracts offered in April and October 1982 were developed by eliminating the effects of technically questionable features of the regional team's methods. We also evaluated whether or not the postsale fair market value determination procedures instituted for the Powder River sale were adequate to permit a reasonable assessment of fair market value.

Our findings related to a possible violation of standards of conduct related to the alleged disclosure of proprietary data are presented in chapter 2. Chapter 3 analyzes the rationale for the changes of bidding systems by Interior. Chapters 4 and 5 analyze

the issue of fair market value. Chapter 4 discusses the reasonableness of minimum bids set for the April and October sales; chapter 5 presents our analysis of whether or not fair market value was received for the coal leased at the two sales. In chapter 6, we examine whether the competition and fair market value requirements of current leasing law should be modified to bring the manner in which the Government leases coal in line with the way industry is developing the resource. Our evaluation includes an analysis of the advantages and disadvantages of possible leasing options which may remedy current problems as well as provide increased revenue to the Government for leased coal. Our conclusions and recommendations are presented in chapter 7.

The many issues surrounding this sale are technically complex, interrelated, and cannot be examined in isolation. The fair market value issue, for example, is perhaps the most complex. This issue has been studied extensively by Interior, but the many legal and economic factors which come to bear on it are still not fully understood within the context of coal leasing. To foster a better understanding of these issues and how they interrelate, this report examines the issues in the sequence in which events related to them occurred at the Powder River sale. As succeeding issues are analyzed, they require an understanding of those which were analyzed before them. Thus, understanding the analysis in chapter 5 of whether fair market value was received requires an understanding of the methods for estimating lease values discussed in chapter 4. By examining each issue as it builds on the others, we believe, the larger picture of what transpired at the Powder River sale can be brought into clearer focus.

No agency comments were obtained on this report. However, the technical results of our evaluation were discussed in detail with senior Department of the Interior officials.

Our review was conducted in accordance with generally accepted Government auditing standards.

CHAPTER 2

ALLEGATIONS THAT A DISCLOSURE OF PROPRIETARY DATA COMPROMISED THE APRIL SALE COULD NOT BE SUBSTANTIATED

Early in May 1982, just after the April 28 Powder River sale, coal industry publications and major newspapers reported that the quick change of bidding systems undertaken by the Department of the Interior immediately prior to the sale might have been related to an unauthorized, premature disclosure of proprietary information in March. The disclosure allegedly involved estimated presale values, or minimum acceptable bids (MABs), calculated by the Minerals Management Service for individual Powder River Basin coal tracts scheduled to be offered for leasing at the sale. In changing bidding systems, Interior substantially lowered these estimates, or MABs, so that the amounts required for opening bids on 19 tracts were reduced by about $46.8 million, from $117.4 million to $70.6 million. (See ch. 3.) Although particulars of the unauthorized disclosure as reported were unclear, this reported occurrence raised the question of whether the sale was compromised by coal industry officials gaining access to the the MABs and then pressuring Interior to lower them before the sale.

In reviewing whether an unauthorized disclosure occurred and whether it was related to the change of bidding systems, we found one piece of written documentation of the alleged disclosure, and encountered considerable opinion within Interior that it occurred at some time in March 1982. In addition, we found procedural flaws in handling the MABS at both the Bureau and the Service field offices. However, we could not document whether or not coal industry officials gained premature access to the MABs and thereafter pressured Interior to lower them. Interior denies that its change of bidding systems for the sale resulted from coal industry "lobbying."

A discussion follows of details related to the reported disclosure and its possible influence on the April 1982 Powder River Basin sale, including (1) how the MABs were safeguarded before the sale, (2) whether the disclosure could be substantiated, and (3) how Interior responded to evidence of the disclosure. (In ch. 3, we present further discussion of why Interior changed bidding systems.)

MINIMUM ACCEPTABLE BIDS NOT SAFEGUARDED PRIOR TO APRIL SALE

Under then-existing coal program procedures, the Minerals Management Service was responsible for calculating MABs for individual tracts offered at the Powder River sale. Its North

Central Regional Office in Casper, Wyoming, calculated the MABs in February 1982 and transmitted them to the Bureau of Land Management's Wyoming and Montana State Offices on March 2 and March 8, respectively, so that they could be published--as minimum selling prices--in a notice of offering at least 1 month prior to the sale. At the same time, the regional office transmitted the MABs to Service headquarters in Reston, Virginia.

We found Service and Bureau control over the MABs in March to be inadequate. The MABs represented Interior's estimate of fair market value, and under Departmental regulations (43 C.F.R. 2.20) they were considered proprietary data to be protected from the time of their calculation until their publication by the Bureau. When it was created, the Service inherited the Conservation Division of the U.S. Geological Survey, which had detailed written standards for handling such data. The Bureau, however, did not have similar agency-wide guidelines. Bureau officials told us that since they generated little or no proprietary coal data, such guidelines were not needed. They explained that proprietary data generated by other agencies and handled by the Bureau was protected according to the stipulations of those agencies.[1] We found, however, that the MABs transmitted to the Bureau by the Service in early March did not contain markings to indicate their sensitivity, in violation of the Service's (Survey's) written standards. This oversight and the lack of Bureau guidelines contributed to the opinion of some Bureau field staff that the MABs were not highly sensitive data prior to the change of bidding systems. The staff also assumed that upon receipt of the MABs from the Service, they would be published in the Federal Register within a few days--the usual past practice. As a result of these several factors, the MABs were not closely safeguarded in the Bureau field offices in March.

The MABs were not published, however. At a March 19 meeting, Interior decided to eliminate them in favor of a new bidding system. (See p. 17.) A notice of offering incorporating the new bidding system--featuring "entry level bids" which were lower than the MABs--was published by the Bureau on March 25. Changing bidding systems so close to the sale had the effect of increasing the sensitivity of the MABs. The change meant that the MABs would remain proprietary, and not be released to the public either before or after the sale.

---

[1]As of Dec. 3, 1982, the Bureau acquired minerals resource evaluation functions which had been transferred from the Conservation Division of the Survey to the Service in Jan. 1982.

CIRCUMSTANCES RELATING TO THE ALLEGED DISCLOSURE DIFFICULT TO DOCUMENT

Though there is some evidence that a disclosure occurred, we were unable to verify details related to it, or to confirm that the disclosure--if it occurred--had an impact on preparations for the April sale.

We attempted to verify the disclosure's occurrence through both (1) written documentation and (2) interviews with numerous people, including Interior employees in field offices and at headquarters, representatives of coal companies, and media representatives. Although we found only one document related to the alleged disclosure, many Interior officials, including the Deputy Director of the Minerals Management Service at congressional oversight hearings held on July 15, 1982, acknowledged that an unauthorized release of data had occurred. In addition, numerous Service and Bureau field officials told us that the disclosure occurred, though they could not describe details of it.

Written documentation indicating that a disclosure did occur consists solely of a March 26, 1982, memo from the Service's North Central Regional Manager to Service headquarters:

> "It has been confirmed to members of our staff that our MAB values have been distributed by unknown parties (not within the Service) and are in the hands of some industry, State, and private individuals. We can also safely presume that many Federal employees have these figures without a real 'Need to Know.' Our fear is, since not all persons or groups have access to those figures, the sale procedures may be compromised."

We talked to the Service's regional manager and his staff, but they could not further document the alleged disclosure nor state exactly how or when it happened.[2] We also talked to Bureau State Office employees in Wyoming and Montana, several of whom said that a disclosure occurred, but did not know how or when. Both Bureau and Service field staff members mentioned individuals who may have received the MABs, but we could not

---

[2]One Service official said a coal company representative contacted him on Mar. 25, and knew two MABs "down to three decimal points." The official told us that when contacted by the company representative he realized that a disclosure of the MABs had occurred, and reported it to the North Central Regional Manager, who subsequently wrote the memo to headquarters. The Service official declined to give us the name of the coal company representative. This matter has been referred by GAO to Interior's Office of the Inspector General.

document these staff members' statements. The individuals mentioned denied or declined to confirm or did not remember having access to the MABs.

In addition, we could not document an impact of the alleged unauthorized disclosure on sale preparations, or the allegation that the disclosure caused coal industry lobbying to lower the MABs. Numerous industry officials whose companies expressed interest in participating at the sale either declined to comment on the alleged disclosure or told us that they knew nothing of it, and denied having lobbied to lower the MABs. Interior officials also denied that such lobbying occurred. According to Interior, its change of bidding systems preceded its knowledge of the disclosure. It based its view on the fact that its new bidding system was introduced in a notice of offering on March 25, one day before the memo from the North Central Regional Manager informed Service headquarters of the disclosure.

Another possibility--that disclosed minimum acceptable bids could have aided individual companies in bidding--is also discounted by Interior. Officials said the presale publication of entry level bids effectively eliminated any advantage to a coal company that might have possessed one or more MABs. It is not clear under the circumstances that having the MABs a few weeks before another company would have been a substantial bidding advantage to any company.

DISCLOSURE NOT INVESTIGATED BEFORE SALE

Although our review of the reported disclosure is inconclusive, we found Interior's response to indications that a disclosure had occurred to be inadequate. Interior did not investigate the matter between March 26, when Service headquarters received the memo describing the disclosure, and the April sale date. In addition, the matter was not referred to Interior's Inspector General after receipt of the March 26 memo by Service headquarters, though such referral was appropriate under Departmental procedures (Departmental Manual, 355.2.1). Instead, a judgment was made that the matter did not compromise the upcoming sale, and sale preparations continued.

We believe Service headquarters officials in the Office of Onshore Minerals Operations should have immediately referred the matter to the Inspector General before the sale. They apparently underestimated the disclosure's potential impact on the upcoming sale. They considered the disclosure's implications for bidding advantage, but did not pursue the possibility that the disclosure could have been related to "lobbying" to change bidding systems. The fact that Interior introduced its new bidding system on March 25--one day before the memo was written asserting an unauthorized disclosure had occurred--does not in itself preclude the possibility of such a lobbying factor because the potential problem dates back at least to when the MABs

were first transmitted within Interior (Mar. 2), not to when the memo was written. Because the disclosure was not investigated before the sale, controversy arose in May when the disclosure was widely reported in the news media. Correctly or incorrectly, the alleged disclosure was linked in the public eye with the new bidding system instituted by Interior.

The Department's rationale for changing bidding systems for the April sale is the subject of chapter 3.

CHAPTER 3

CHANGE TO ENTRY LEVEL BIDDING

UNTIMELY AND INEFFECTIVE

In 1982, the Department of the Interior made two changes in bidding systems used to conduct competitive coal lease sales under the Federal Coal Management Program. In March 1982, the Department adopted an experimental entry level bidding system for the April 28 Powder River Basin regional coal lease sale. Under the system, bidding began at "entry" levels instead of at levels considered under the previous system to be the coal tracts' fair market value. For a followup sale of two Powder River tracts on October 15, 1982, procedures changed further, under new Federal coal regulations issued on July 30, 1982. Interior eliminated oral and entry level bidding for the followup sale, in favor of single sealed bidding and "minimum" bids set differently for different kinds of tracts--new production or maintenance. Coal industry observers, the print media, Members of Congress, and others questioned why Interior made major procedural changes in March, so close to the date of such a large coal lease offering. They also questioned the procedural changes instituted for the October followup sale.

Both sets of changes were related to Interior's efforts to streamline its procedures for leasing coal, and its historical problems with coal valuation. Coal valuation is inherently difficult because of uncertain market factors, costs, and prices related to the long-term investment potential of a given coal lease.

The immediate concern prior to the April sale was that the Minerals Management Service's original presale estimates of the coal tracts' value--called "minimum acceptable bids"--were too high, were based on faulty tract appraisal methods, and might scare away bidders. Interior quickly changed systems in order to enhance bidding participation for tracts and to achieve what it thought would be more accurate tract valuation through postsale fair market value determination based on actual sale results. (See ch. 5 for detailed discussion of postsale fair market value determination.)

We found the change in systems to be an untimely and ineffective step which raised questions about the Department's ability to do reliable and accurate coal lease valuations. In replacing its previous coal valuation and bidding system--which had recognized limitations--Interior chose not to use its original estimates of the fair market value of the coal tracts offered at the April sale. (See ch. 4.) It replaced these estimates with entry level bids. This move lowered the amounts required for opening bids on the 19 tracts originally planned to be offered at the sale by $46.8 million, from $117.4 million to $70.6 million. (As shown in table 3-3, for the 11 tracts

actually receiving bids at the sale, the reduction was $17.5 million.) The new system was instituted in 6 weeks, and it did not work as envisioned at the sale. Accepted bids for 10 tracts totaled $43.5 million, but bidder participation on April 28 was not high for either new production or maintenance tracts and the value of tracts was not "bid up" as expected.

Further changed bidding procedures were used at the follow-up sale in October, in accordance with the new coal regulations. The premise was that new production tracts should be offered at a minimum bid of $100 per acre (rather than the previous $25 per acre) and that competitive sealed bidding would encourage a bidder to offer its one "best bid" in order to gain the lease. Maintenance or bypass tracts were to be offered at the presale estimate of their actual value--$100 per acre or higher. Two tracts were sold in October for a total of $23.7 million, at an average of about $4,500 per acre; one bidder appeared for each tract. The October sale did not represent a clear indication of the worth of the new bidding system because the two tracts offered sold to single bidders, and the system's effect of encouraging bidders to offer a single "best bid" could not be readily observed.

Nothwithstanding the problems associated with the change to entry level bidding, accepted bids for the April and October sales combined totaled $67.2 million for 12 tracts compared to MABs of $70.7 million as adjusted by Interior economists. (See footnote, p. 25.)

Following are discussions of (1) the role of previous bidding systems in coal leasing, (2) the basis for and results of entry level bidding at the April sale, and (3) the basis for and results of minimum bidding at the October sale.

BIDDING SYSTEMS USED IN FEDERAL COAL MANAGEMENT PROGRAM PRIOR TO MARCH 1982

When the Federal Coal Management Program began in 1979, the Department of Energy Organization Act transferred from Interior to Energy the authority to implement alternative bidding systems for coal lease sales. The Energy Department established a cash bonus bidding, fixed royalty system for coal leasing.[1] This system, as used at recent competitive regional sales prior to the Powder River sale, worked as follows. After tract selection by the regional coal team and publication of the final Environmental Impact Statement (EIS), Interior field experts in the sale region calculated minimum acceptable bid values for each tract to be offered. These values were also official Government estimates of the fair market value of the tracts. Following the

---

[1]On Dec. 23 1981, the Energy Department's authority to implement bidding systems was repealed, and this authority reverted to Interior. Under regulations issued on July 30, 1982, Interior retained the cash bonus, fixed royalty system.

final decision by the Secretary of the Interior to hold a lease sale, the values were transmitted to the Bureau of Land Management field offices in the States where the tracts were located. Then the Bureau published a sale notice which announced the sale, explained bidding procedures, and described tracts to be offered, including minimum bids. Sealed bids were to be received by the sale date, at which time any further oral bidding could proceed. After the sale, high bids were evaluated briefly at a joint sale panel meeting of Interior field officials. Then followed official Bureau acceptance or rejection of bids, Justice Department antitrust review of accepted bids, and lease issuance.

Until a few weeks before the Powder River sale in April 1982, sale procedures were as outlined above. On February 22, 1982, the Secretary of the Interior made the final decision on which coal tracts would be offered at the April 28 sale. Included were 8 tracts in Wyoming and 11 in Montana. (See table 3-1.) The minimum acceptable bids, or MABs, for these 19 tracts were calculated by the Minerals Management Service's North Central Regional Office in Casper, Wyoming.

The regional office staff used comparable sales analysis in its calculations. The comparable sales method involves analyses of the physical or geological characteristics of a previously sold tract against those of the tract being offered for sale. Adjustments to account for differences are made to arrive at a comparable value. Because of limited actual sales data, the regional economic evaluation team adopted a novel approach--using its analysis of a hypothetical Powder River mining operation--as the basis for making tract value adjustments. Its methodology is analyzed in detail in chapter 4.

The MAB calculations by the field staff for 19 tracts offered ranged from the regulatory minimum of $25 per acre[2] to $22,753 per acre, and from less than 1 cent per ton of mineable reserves to over 19 cents per ton, as shown in table 3-1. These MABs were generally accepted as Interior's calculation of fair market value.

---

[2]Increased to $100 per acre under regulations issued July 30, 1982, and effective on Aug. 30, 1982.

Table 3-1

Minimum Acceptable Bids for April 1982 Sale

	Acreage (note a)	Mineable reserves (MM tons)	$/ Acre	Cents/ ton
Wyoming:				
Spring Draw	3,687	323	b/7,446	b/8.5
Rocky Butte	4,856	445	5,471	6
*Little Rawhide Creek	530	90	22,753	13.4
*South Duck Nest Creek	1,153	143	3,110	2.5
*Fortin Draw	320	c/ 26.6	c/2,132	c/2.6
Kintz Creek	3,200	193	511	0.8
Timber Creek	3,669	167	25	0.06
Keeline	3,238	170	25	0.05
Montana:				
*Spring Creek	658	35	10,373	19.5
*North Decker	1,431	66	4,496	9.7
*Colstrip D	2,250	43.2	25	0.14
*Colstrip C	893	18.9	25	0.12
*Colstrip A&B	1,632	58.5	25	0.07
Coal Creek	1,033	60	25	0.04
*West Decker	40	5	25	0.02
Ashland (Decker-Birney)	1,949	119	6,307	10.3
Northwest Otter Creek	1,350	139	8,758	8.5
Southwest Otter Creek	1,821	130	4,216	5.9
Cook Mountain	2,096	178	25	0.03

*Maintenance tract.

a/Rounded to nearest acre.

b/Based on the regional economic evaluation team's correction of stripping ratio and Btu rating errors discovered after the sale. The original MAB was about $14,162 per acre, or 16.2 cents per ton.

c/Based on the economic evaluation team's correction of a tonnage error discovered on Apr. 6, 1982. The original MAB was $7,798 per acre, or 5.5 cents per ton. Because it was too close to the sale date to publicize the revised value, the tract was dropped from the sale and offered on Oct. 15.

The Service's regional office transmitted its results to Bureau of Land Management State offices in Wyoming and Montana on March 2 and March 8, 1982, respectively. At the same time, the recommended MABs were transmitted to Service headquarters in Reston, Virginia.

MAJOR CHANGES IN BIDDING SYSTEMS IMPLEMENTED IN ONLY 6 WEEKS

When Service officials received the MABs in early March, they judged them to be too high and believed they might "chill" bidder participation and competition at the upcoming sale. Within a 6 week period prior to the sale, Service and other Interior officials made a major change in bidding systems, but without adequate analysis.

At a meeting during the week of March 8, 1982, the Assistant Secretary for Land and Water and the Service's Deputy Chief of Onshore Operations discussed the possibility of changing to an entry level bidding system. At a March 19 meeting called by the Assistant and Deputy Assistant Secretary for Energy and Minerals and the Deputy Assistant Secretary for Land and Water, the decision to change systems was made. Service headquarters staff worked out the details of the change over the weekend. A sale notice incorporating the new bidding system was published on March 25. On April 27, the Undersecretary of the Interior officially approved the new entry level bid procedures.

The following sections discuss (1) the nature of the entry level bidding system and how it affected Powder River coal offering prices and (2) whether entry level bidding worked as envisioned.

New Bidding System Used For April Sale--Coal Offering Prices Lowered

In connection with a move toward greater reliance on post-sale fair market value determination, Interior replaced the former minimum acceptable bidding system with an entry level bidding system. The entry level bids, designed to spur bidding competition, reduced the minimum offering price of the 19 coal tracts by about $46.8 million.[3] Interior had no records documenting, and could provide no written quantitative basis supporting the need for these reductions.

---

[3]The original MABs for all 19 tracts totaled $144 million. Entry level bids totaled $70.6 million. The apparent reduction was $73.4 million, but this figure was adjusted to $46.8 million because faulty resource data had been included for two tracts--Spring Draw and Fortin Draw. (See note a, table 3-2, p. 20.)

Interior's rationale for the new bidding system was that fair market value could best be determined after an actual sale because presale coal valuations--comparable sales analysis and discounted cash flow analysis--had proved to be historically difficult, particularly in regions such as the Powder River Basin where few leases had been sold over several years.[4] In addition, the Department was concerned about the changing coal market in the region, and a recent sale experience--a February 1982 coal lease sale in Utah where three of the four tracts offered by Interior received no bids. (See ch. 4 for analysis of these issues.)

For the Powder River sale, Interior combined the concept of postsale valuation with the theory that competitive coal lease sale procedures should follow the standard bidding principles used at auctions. Auction procedures call for bidding to start at a "floor" level well below estimated fair market value. According to Interior, the floor price, below which auction houses will not sell an item, is normally 40 to 50 percent of the house's low estimate of the item's true value. This "floor" or entry level is meant to assure that bidding will not be discouraged.

On March 25, with no written quantitative basis, the Bureau published entry bid levels grouping the 19 Powder River Basin coal tracts into five categories of value:

I 8 cents/ton	II 5 cents/ton	III 2.5 cents/ton
Little Rawhide Creek	Fortin Draw	Rocky Butte
Spring Creek	North Decker	South Duck Nest Creek
Spring Draw		

IV $25/acre regardless of tonnage	V Intertract bidding--2.5 cents/ton, 2 tracts to be sold
Coal Creek	Ashland (Decker-Birney)
Colstrip A&B	Cook Mountain
Colstrip C	Northwest Otter Creek
Colstrip D	Southwest Otter Creek
Keeline	
Kintz Creek	
Timber Creek	
West Decker	

---

[4]Discounted cash flow analysis is a coal lease valuation technique which sums future coal mine costs and revenues after discounting them to their net present value.

Although not all individual tracts were reduced in value, the aggregate reduction for 19 tracts was about 50 percent (not accounting for resource data errors which were found after the entry bids were set--see table 3-2). The Service gave the following reasons for these entry levels:

--Tracts with MABs set at $25 per acre were kept at this regulatory minimum.

--Other tracts were placed in categories of value which would foster competition and not "scare away" the bidders.

--Categories of value were related to the recent selling price of Federal coal among private companies--2 cents to 5 cents per ton. The categories were also related--as discussed--to the bidding theory that "the published floor bid should be 40 or 50 percent of our best presale estimate of value."

Service officials could not, however, document the 2 cents to 5 cents per ton recent selling price of Federal coal among coal companies. They also could not explain why they did not use the values of the two Powder River Basin comparable sales tracts which had been identified by the regional economic evaluation team. These tracts sold in the 15 to 20 cents per ton range.

We were told that no econometric study of the selling price issue could be done in time for the sale, nor could we find any. The decision to change systems was made on March 19, the actual entry level bids were set during the weekend of March 20-21 by Service headquarters staff, and the notice of sale was published on March 25.

Table 3-2 compares Interior's original MABs calculated for the tracts offered at the April sale to the new entry bid levels. As shown, the change significantly affected 11 of 19 tracts offered. Taking into consideration an adjustment for errors in coal resource data on two tracts--Spring Draw and Fortin Draw--the net reduction was about $46.8 million.

Table 3-2

Effect of Change from MABs to Entry Level Bids

Tract	MAB Total $ (millions)	Entry level bids Total $ (millions)	Entry level bids Percent of MAB
Wyoming:			
Spring Draw	a/$27.5	$25.8	94
Rocky Butte	26.6	11.2	42
*Little Rawhide Creek	12.1	7.2	60
*South Duck Nest Creek	3.6	3.6	99.6
*Fortin Draw	a/0.7	2.2	314
Kintz Creek	1.6	.080	5
Timber Creek	.092	.092	100
Keeline	.081	.081	100
Montana:			
*Spring Creek	6.8	2.8	41
*North Decker	6.4	3.3	52
*Colstrip D	.056	.056	100
*Colstrip C	.022	.022	100
*Colstrip A & B	.041	.041	100
Coal Creek	.026	.026	100
*West Decker	.001	.001	100
Ashland (Decker-Birney)	12.3	3.0	24
Northwest Otter Creek	11.8	3.5	30
Southwest Otter Creek	7.7	3.3	43
Cook Mountain (note c)	.052	4.5	8,654
Total	b/$117.4	b/$70.6	60

*Maintenance tract.

a/Values shown are recalculations by the economic evaluation team to account for errors in resource data for the Spring Draw and Fortin Draw tracts. The original MABs were $52.2 million and $2.5 million, respectively, and total MABs were about $144 million.

b/Addition is inexact due to rounding.

c/As a consequence of an administrative error, this tract was inadvertently priced far above its estimated value. (See p. 60 for details.)

As shown, the values of five of nine maintenance tracts were lowered little or not at all. The four others were set at entry levels ranging from 41 to 99 percent (and in one exceptional case, over 300 percent) of their MABs. Among new production tracts, three were not changed in value; the other seven were set at entry levels ranging from 5 to 94 percent (and in one exceptional case, over 8,000 percent) of their respective MABs.

Entry Level Bidding Did Not Work As Envisioned At April Sale

The success of the April sale as an experiment in entry level bidding was limited. Bidder participation, which Interior sought to encourage with its new system, was not high. Although bonus bids offered in April were record totals for such a sale, Interior's hope for a truly competitive coal auction was not borne out by the bidding for tracts.

The bids--totaling $54.7 million for the April sale--were by far the largest aggregate amount paid for leasing Federal coal at a single sale. (See table 3-3.) But this was also by far the largest quantity of Federal coal ever offered for lease. One high bid, $11.2 million for the Rocky Butte tract, was rejected as not representing fair market value. (The rejected bidder for the Rocky Butte tract appealed the decision within Interior, but withdrew the appeal when the tract was reoffered in October.) Excluding Rocky Butte, total accepted high bids for the April sale were $43.5 million.[5]

---

[5]Bids on two leases, Coal Creek and Cook Mountain, have been accepted, but the leases have not yet been issued--the former awaits a decision by the Small Business Administration that the high bidder qualifies as a small business; the latter awaits surface owner consent.

Table 3-3

Powder River Bids Received and Sale Results, April 1982 (millions)

Tract	MABs	Entry level bids	Actual high bids	Number of bidders
Wyoming:				
*South Duck Nest Creek	$ 3.59	$ 3.57	$ 3.61	1
Keeline	.08	.08	1.62	2
*Little Rawhide Creek	12.06	7.20	7.42	1
Rocky Butte	26.57	11.17	11.17	1
Spring Draw	a/27.46	25.81	25.90	1
Montana:				
Coal Creek	.03	.03	.35	2
*Colstrip A&B	.04	.04	.04	1
*Colstrip C	.02	.02	.02	1
*Colstrip D	.06	.06	.06	1
Cook Mountain	.05	4.45	4.45	1
*West Decker	.001	.001	.02	2
Total bids received	b/$69.95	$52.44	$54.66	14
Less rejected Rocky Butte bid	26.57	11.17	11.17	
Sale results	$43.38	$41.27	$43.49	

*Maintenance tract.

a/Value shown is a recalculation by the Service's Economic Evaluation Team to account for errors in resource data discovered after the sale. The original MAB for Spring Draw was $52.2 million. The original MABs for the 11 tracts receiving bids totaled $94.7 million.

b/Addition is inexact due to rounding.

Based on total coal leased and bids received, Department officials called the sale results a success. On the other hand, actual total bids for 11 tracts fell $15.3 million short of the total MABs of $69.95 million and exceeded the total entry level bid minimums by only $2.2 million. These figures raise a significant question about the workability of Interior's new bidding system as used for the Powder River sale.

Of the 13 tracts offered on April 28, 11 received bids. On 8 of these 11, there was only one bidder. Each of the other

three tracts experienced both sealed and oral bidding by two bidders. Eight of the 13 tracts offered were designated by Interior as maintenance tracts. Of these eight, five attracted one bidder, but two attracted no bidders and one attracted two. Of the five tracts considered new production tracts for the sale, two attracted two bidders and three attracted only one.

The April Powder River sale's preponderance of production maintenance tract offerings made it less than the best test of an experimental bidding system designed to enhance bidding participation. The presence of 8 maintenance tracts--by definition attractive to single operators--practically guaranteed that the total value of tracts would not be elevated very far above the "floor price" set by the "auctioneer," which was only "40 to 50 percent of his best estimate of value." (See p. 18.) As mentioned, actual bids were elevated only about $2.2 million above the entry level minimums. For new production tracts only, where greater bidding participation might have been expected, the total increase was only $2 million, or about 5 percent, not 100 percent or more as envisioned in Interior's bidding theory. Thus, the April sale results did not offer the Interior Department a solution to its longstanding coal valuation and fair market value determination problems. Instead, they revealed the continued seriousness of these problems. (See also chs. 4 and 5.)

MINIMUM BIDDING USED AT OCTOBER 1982 FOLLOWUP SALE

Due to changes in Interior regulations, entry level bidding was not repeated for the Powder River sale of October 15, 1982, at which two Wyoming tracts, Rocky Butte and Fortin Draw, were offered for competitive leasing. Instead, minimum bidding was used.[6]

Though emphasis on postsale fair market value determination was retained, the new system replaced oral bidding with single sealed bids, and it distinguished between stand-alone (new production) and maintenance or bypass coal tracts, stipulating different minimum bids for each. New production or stand-alone tracts would be offered at the new regulatory minimum of $100 per acre regardless of their estimated market value. On the other hand, maintenance, bypass, or other tracts would be offered at a price representing the Department's best estimate of the "representative market value"--but not less than $100 per acre.

---

[6]These minimums were floors beneath which bids would not be considered. Like entry level bids, they were not officially representative of fair market value.

Minimum bidding is based on the idea that competitive sealed bidding encourages a bidder to offer its one best bid--based on its own careful calculations, not on hypothetical Government calculations--in order to gain the lease. This eliminates the possibility that a bidder might render a sealed bid beneath its "best offer," and then if necessary raise it in oral bidding if other bidders for the tract appear. Such a possibility existed under the entry level bidding approach used at the April sale. Nonetheless, minimum bidding theory is similar to entry level bidding in that it depends on active bidder interest in tracts to insure honest, "best" bids.

Under the new system, the Rocky Butte new production tract was offered by Interior for resale at the regulatory minimum of $100 per acre. Fortin Draw, a maintenance tract, was offered at a $4,200 per acre value arrived at through comparable sales analysis using two maintenance tracts from the April sale, South Duck Nest Creek and Little Rawhide Creek. As shown in table 3-4, both tracts sold, each to a single bidder, at bids of $1.4 million and $22.3 million, respectively--totaling $23.7 million.

Table 3-4

Powder River Followup Sale Results

Tract	Minimum bids: Total (millions)	Minimum bids: Cents/ton	Actual bids: Total (millions)	Actual bids: Cents/ton	Actual bids: Number of bidders
Rocky Butte	$0.49	0.1	$22.34	5.0	1
Fortin Draw*	1.34	5.1	1.35	5.1	1
Total	$1.83	b/0.4	a/$23.69	b/5.0	2

*Maintenance tract.

a/Addition inexact due to rounding.

b/Average.

October sale results did not provide a clear indication of the worth of the new bidding system, because the two tracts involved attracted only one bidder each. There was little indication that either bidder expected competitors in bidding for the tract it wished to purchase, and therefore was compelled to offer its one best bid. Fortin Draw sold to the adjacent operator at a price 1 percent above the minimum bid. Rocky Butte sold for $4,600 per acre to a single bidder--the same company that had placed the lone bid on the tract in April ($2,300 per acre) which was rejected as less than fair market value.

Though the sale was not an indication of the worth of minimum bidding, because only two tracts were offered, it was of a scale small enough for experimental purposes. As such, the October sale was an improvement over the April sale because the scale of the earlier sale was too large to warrant the use of an experimental bidding system at the sale. It is still unclear what type of bidding system Interior will use in future regional sales. Current regulations afford wide discretion in this matter--so wide that they permitted Interior to switch from MABs to entry level bids and not violate regulations. The regulations do not contain guidelines for using untried or experimental bidding systems at regional lease sales nor otherwise limit the volume of coal which may be offered under such experimentation.

Notwithstanding the problems associated with the change to entry level bidding, accepted bids for the April and October sales, combined, totaled $67.2 million for 12 tracts, compared to Interior's original minimum acceptable bid estimates of $70.7 million as adjusted by Interior economists.[7] Nevertheless, we believe the amounts received for these leases were substantially less than a reasonable determination of fair market value. As discussed in chapters 4 and 5, we reviewed Interior's initial determinatons of fair market value and identified several technical problems which show the amounts received to be understated by roughly $100 million.

[7]Adjustments made to account for resource data errors (see table 3-1).

CHAPTER 4

INTERIOR'S CRITICISMS OF COMPARABLE SALES ANALYSIS

UNWARRANTED, BUT IMPROVEMENTS ARE NEEDED

Interior used comparable sales analysis for calculating minimum acceptable bids (MABs) for leases being offered at Federal coal lease sales. The MABs are commonly accepted as Interior's presale calculation of fair market value. The Minerals Management Service's regional economic evaluation team followed this approach in preparing for the April 1982 Powder River sale. The MABs developed were discarded, however, when Interior management decided that they were not reliable lease value estimates. As discussed earlier, the MABs were replaced by lower entry level values designed to spur greater bidder participation at the sale.

This change was made in conjunction with a Departmental decision that fair market value would be determined after the sale based on consideration of competitive bids--and the comparative data derived from that competitive bidding--received at the actual sale. (See ch. 5 for discussion of this approach.) However, competition among bidders--the essential element of this new approach--did not ensue at the sale. At issue, in the absence of competition, are the adequacy of Interior's justification for not using the comparable sales analyses performed by the Service's regional economic evaluation team and the implications of this decision for determining and realizing the fair market value for Powder River coal.

We found that Interior's reasons for rejecting the regional economic evaluation team's analysis were not valid, although certain revisions were needed to the team's calculations. In the absence of sufficient competition at the sale, we believe Interior should have used the comparative sales analysis, but with revisions to eliminate certain inappropriate adjustments and other questionable reductions in tract values made by the evaluation team. By not making these revisions, Interior undervalued the MABs by over $95 million. Because of weaknesses in the Department's postsale fair market value determinations (discussed in chapter 5)--Interior accepted bids substantially short of their value for 10 tracts at the April sale.

In this chapter we examine--in light of criticisms leveled by Interior management--the detailed methods used by the regional economic evaluation team for calculating MABs. After identifying needed improvements we show how the MAB values would have been affected had revisions been made to eliminate (1) two inappropriate adjustments--one a purely speculative adjustment designed to reflect economies of scale associated with different-size mining operations, the other a tax effect adjustment which should have been used only for those tracts set aside

for small businesses, and (2) the effect of a questionable policy which further reduced the value of certain small tracts. The revised MABs later--in chapter 5--become a yardstick against which actual bids are compared to derive our calculation of the amount of shortfall in fair market value received by the Government.

CRITICISMS OF REGIONAL TEAM'S COMPARABLE SALES METHODOLOGY UNWARRANTED

As part of its justification for discarding the MABs, Interior management criticized the comparable sales analysis methodology employed by the Service's economic evaluation staff. However, management could not provide detailed information documenting weaknesses in the methods used. They did not appear to know details of the methodology itself, and in fact relied on similar methodology when it was used a few months later to develop offering prices for the followup Powder River sale of October 15, 1982.

While criticizing the analyses, Interior management did not examine in depth the specific methods the staff employed. Though the lack of detailed written reports explaining the analytical techniques used by the economic evaluation staff might be seen as contributing to this management oversight, it does not explain why management opted not to delve into the mechanics of such a critical analysis and--rather than discard it--make adjustments to it as warranted.

As part of the expanded scope of our evaluation, we performed an analysis of the methodology. We conducted in-depth interviews with, and examined the working papers of, the Service's economic evaluation team. Based on our examination, we believe the methodology they employed, while imperfect, was neither unreasonable nor inappropriate under the circumstances--and could have been revised for use in analyzing sale results.

Regional Team's Methods Not Unreasonable

Because a competitive Federal coal lease sale had not been held in the Powder River Basin for more than a decade, Interior did not have "hard" data indicative of the value of the leases it planned to offer in April 1982. Federal and private coal leases had changed hands, however, in the assignment market--where private companies buy and sell various coal holdings, including Federal leases. Interior therefore attempted to obtain specific information on the characteristics of the leases changing hands and the terms of the sales.

The evaluation team searched the land sales records in five counties for comparable coal lease assignments in the Wyoming and Montana sectors of the Powder River Basin Federal Coal

Region. They requested detailed information describing the sales from the eight companies found to be involved in Powder River Basin lease assignments. Only two companies agreed to provide data sufficient for the Service to perform comparable sales analysis. This data involved July 1980 assignments of Federal, State, and private coal leases located in Campbell County, Wyoming. The purchasers were two major oil companies--Shell and Cities Service. Through its own analyses and discussions with the purchasing companies and the seller--Peabody Coal--of the two tracts, the evaluation team concluded that the sale of the Dry Fork lease tract to Cities Service was more representative of coal value in the region. This sale was the basis for the Service's analysis.

Use of the comparable sales method to value coal leases involves a series of adjustments which are made to account for differences between physical and economic characteristics of the sold tract and the tract being offered for sale. The regional office staff made adjustments for the following critical characteristics: Btu rating, sulfur content, reclamation and surface purchase cost, rail spur line cost, stripping ratio, production rate economies of scale, boxcut (the initial groundbreaking cost for new mines), tax effect, and bonus payment method.[1] Its methodology for making the adjustments, however, was new to the Federal coal program.

In essence, the evaluation team modeled a hypothetical mining operation in the Powder River Basin and analyzed how changing different aspects of the operation affected the price at which coal would have to sell for the mine to make a reasonable profit. This provided data on how hypothetical differences between physical and economic characteristics affect the profitability or value of the mining operation. Mathematical equations explaining how hypothetical differences affect value were developed and used to make adjustments for actual differences between the comparable tract sold on the assignment market and the tracts being offered for sale.

Although having no written or otherwise documented analysis to back up their criticisms, Interior headquarters officials expressed concern over several factors pertaining to the

---

[1]Stripping ratio refers to the cubic yards of overburden (soil, rock, shale, etc.) which must be removed per ton of coal recovered. It is essentially the ratio of the thickness of the layer of overburden to the thickness of the underlying coal seam. On Montana tracts, three further adjustments were made--for (1) differences in mining costs and taxes between Wyoming and Montana, (2) different prices paid for Wyoming and Montana coal because of location and characteristics, and (3) for different mill levies among Montana counties.

comparability of the tracts used as a basis for the comparable sales analyses because, in their view,

--the demand for coal had changed since the comparable tract--Dry Fork--was sold;

--the comparable tract was sold in the private assignment market rather than in a competitive Federal coal lease sale; and

--the comparable tract was subject to different diligence (development) and royalty requirements.

Following is our analysis of each criticism.

Changes in Demand for Coal
Not a Major Factor

The timing of a sale is one of the tests for comparability among sold and offered tracts. There are no hard and fast rules prescribing how much time must elapse before a sale should no longer be considered comparable. However, it is generally accepted that the closer the sale date of the sold tract to the offering date of the proposed tract, the more comparable the sold tract. In relation to the MAB calculations for the April 1982 sale, Interior felt that the July 1980 sale of Dry Fork was too old for a meaningful comparison because the coal market underwent a dramatic change during the intervening period of nearly 2 years. When we asked Interior officials for evidence substantiating the dramatic change they cited, neither Bureau, Service, nor Office of Policy Analysis officials could furnish evidence to support their view that "the bottom had fallen out of the market."

The question of how much the market for Wyoming coal has changed in recent years is a key to understanding valuation problems related to the April and October 1982 Powder River sales. Although the market has changed somewhat, this alone does not--in our view--appear to warrant categorical dismissal of the comparable sold tracts. Our analysis of the Wyoming market follows:

--Demand for coal production--according to industry representatives--lags about 10 years behind coal contract dates. The type of demand for Wyoming coal has changed from a demand for new mine production to one for reserves to service existing contracts. In 1982, total demand for production though down from annual growth rates in the 1970s--sometimes as high as 28 percent per year, according to the Wyoming Mining Association--was up 9 percent over the preceding year. As a consequence of contracts written in the 1970s, demand for Wyoming coal is expected to increase at a rate of 3.5 to 4 percent per year through the end of the decade. Though new mines may not

be opened to satisfy this demand, companies nonetheless desire to add to existing reserves to service current contracts. Therefore, it can be argued that the demand for reserves is actually increasing annually and was possibly greater in 1982 than it was in 1980.

--The long-term contract prices for 8,100-Btu Wyoming coal--as reported in "Coal Week"--have not changed dramatically over the period between the date of the comparable sold tract (July 1980) and the Powder River sale (April 1982). The long-term contract price rose $0.25 from $6.75 per ton in mid-1980 to $7.00 per ton in early 1981. The price remained at $7.00 per ton until mid-1982 when it rose to $7.50 per ton. Even if these gradual increases are attributed primarily to inflated coal mine operating costs alone, they would indicate more of a flattening market than a depressed one.

--A major source of information on demand for coal reserves, according to Interior, is its analysis of expressions of interest received from industry. Eliminating duplicate nominations, Interior's own presale calculations indicated a demand for approximately 6.1 billion tons of recoverable reserves of Federal coal in the Powder River Federal Coal Region. Only 1.6 billion tons were offered in April.

--According to the Service's regional economic evaluation team, short-term changes in the demand for coal do not affect its in-place value. Their effects may cause less coal to sell, but not cause coal to sell for less.

Thus, there is not enough empirical data to draw unequivocal conclusions on the "hardness" or "softness" of the Wyoming coal market. According to the Service regional economic evaluation team, buyers and sellers are both uncertain about the value of coal land and, consequently, expectations vary on both sides. Based on our analysis, we do not believe that the comparable tract sold in 1980 was too old for use in setting the value of tracts to be offered in 1982.

<u>Assignment Market Transactions Make Good Comparables</u>

Interior officials stated that because the comparable sales data came from the assignment market--where private companies buy and sell various coal holdings, including Federal leases--it was not suitable for use in comparable sales analysis. Although data from a competitive Federal coal lease sale would be preferable, the Uniform Appraisal Standards point out that arm's length transactions in the assignment market involving the

resale of a Federal lease are an acceptable alternative.[2] In addition, the specific assignment market tract used in comparable sales analysis by regional staff had several suitable characteristics. It was (1) a Federal lease in the Powder River Basin, (2) physically and economically similar to other coal properties in the area, and (3) sold competitively at arm's length--the seller received at least three expressions of interest in the lease and three bids as well.

Differences Between Diligence and Royalty Rate Requirements Not a Significant Factor

Interior argued that the assignment market tract was not comparable because it involved a pre-FCLAA--Federal Coal Leasing Amendments Act of 1976--lease which was subject to lesser diligence requirements and lower royalty rates.[3] Although the comparable lease does predate the act, based on our examination Interior's arguments are not valid.

Concerning the lesser diligence requirements, the purchaser of the 1980 comparable tract told us when it was considering acquiring the tract in 1979, that it saw the pre-FCLAA lease as being at a disadvantage to a new lease. The purchaser explained that FCLAA was originally interpreted in coal leasing regulations as calling for production from old leases--including the comparable Dry Fork tract--in commercial quantities by 1986. If, however, a proposed mine's output would exceed 5 million tons per year, it qualified for a 5-year exemption. Because the purchaser's mine plan called for production of 12 million tons per year, it felt the extension would allow adequate time to bring the lease into compliance and thus overcome the perceived disadvantage. Looking at Interior's argument from the purchaser's point of view raises a substantial question as to

---

[2]Uniform Appraisal Standards For Federal Land Acquisitions, Interagency Land Acquisition Conference, 1973, p. 9.

[3]Pre- unlike post-FCLAA leases are <u>not</u> subject to the 10 year diligent development requirements <u>and</u> 12.5 percent royalty rates. The pre-FCLAA minimum royalty rate was 5 cents per ton. Concerning diligent development, pre-FCLAA leases were subject to no real diligence requirements--leases were issued for indeterminate periods and subject to readjustment every 20 years, upon condition of diligent development and continued operation. These "conditions," however, were not specified until after FCLAA was enacted. Interior then promulgated diligent development regulations requiring by 1986 (1) coal production in commercial quantities and (2) continued mining operations. No Federal coal lease, however, has ever been cancelled for lack of diligent development.

whether the diligence requirements of the pre-FCLAA lease caused it to sell at a premium or a discount.

In addition, though it is true--under current regulations--that the seller of a pre-FCLAA tract might expect some premium for the less stringent diligent development requirements accompanying the lease, the amounts of the premiums are difficult to determine. In our opinion, the price paid for the tract is more readily attributable to the level of competition for a highly desirable tract--one of the last unencumbered tracts with 100 foot thick coal seams--than to speculation over a possible premium.

Regarding the difference in royalty rates between pre- and post-FCLAA leases and the extent to which they have an impact on the comparability of the assignment market tract, we found that in this instance there is no apparent impact. Although there is a substantial difference between the royalty rates of pre- and post-FCLAA leases, the pre-FCLAA rate will be adjusted upward to the current post-FCLAA rate of 12.5 percent on December 1, 1987. According to the lessee, production was not scheduled to begin until 1987 or later if a coal customer was not found. Thus, the impact--on the lease purchaser--of the difference in royalty rates would be practically nil. According to the purchasing company, it assumed a 12-1/2 percent royalty rate when formulating its bid.

The seller's ability to exact a premium is influenced by the likelihood that prospective buyers will be able to begin producing soon enough to take advantage of the lower royalty rate. In this instance, however, the sale occurred in July 1980, less than 7 years before the scheduled (Dec. 1987) royalty rate increase date. The tract was sold and bought as a new production tract. Typically, under favorable conditions, such tracts take from 7 to 10 years to begin production. The National Coal Association contends that new mines may take as long as 14 years to begin producing commercial quantities. In our view it is unlikely that the seller expected much, if any, premium under these circumstances.

- - - - - -

From these analyses, we conclude that under the circumstances, the economic evaluation team's approach was not unreasonable when the alternatives are considered. Interior had only the data from two comparable sold tracts on which to base its analysis. Lacking sufficient data from actual coal sales, the evaluation team devised a means for generating data, analyzing it, and using the results to value actual tracts. While the overall approach used by the evaluation team was reasonable under the circumstances, we do take issue with two specific tract value adjustments made by the team, as well as with certain questionable Departmental policies which further reduced

tract values. Our concerns and their respective impacts on estimated values for the Powder River coal leases are discussed below.

IMPROVEMENTS NEEDED TO BETTER ACCOUNT FOR PRODUCTION RATE DIFFERENCES AND TAX EFFECTS

The comparable sales analysis methodology employed by the economic evaluation team could be improved if speculative adjustments for differing production rates were eliminated from the analysis and if tax effect adjustments--aimed at recognizing the weaker capital structures of small businesses--were made only for those tracts specifically set aside for small businesses. Determining whether the production rate adjustments should be made, and if so, how, will likely require extensive studies to resolve the many uncertainties complicating the adjustments. Problems with the tax effect adjustment for small businesses, however, can be solved by reserving such adjustments for analyses of tracts set aside for small businesses and situations where small business participation may be anticipated. The need for each of these improvements and their effect on tract values are discussed below.

Adjustments for Production Rate Differences are Speculative and Result in Substantial Lease Undervaluations

The production rate adjustment was designed to reflect the economies of scale associated with different-size mining operations. Interior officials characterized the adjustment as "speculative," because of the large number of uncertainties which accompany it. We agree such adjustments are questionable because they require too many evaluative assumptions about factors influencing the size of future mining operations and annual production levels over time. Such factors are difficult, if not impossible, to predict with adequate levels of confidence. For example, to estimate the most likely annual production levels for the lease tracts offered, the economic evaluation team must predict the

- --companies that will obtain the leases,
- --purchasers of the coal,
- --timing, terms, and conditions of the coal supply contracts entered into by the lessees with prospective buyers,
- --production scale-up rates, and
- --impact of the changing coal market and general economic conditions on the above and other factors.

The large number of uncertainties that must be considered to make a production rate adjustment reveals its speculative nature. As applied by the economic evaluation team, it resulted in substantial lease undervaluations, which we believe were inappropriate. The Service's economic evaluation team agrees that the production rate adjustment, as currently made, is of a speculative nature, but feels that some form of adjustment is needed. They recognize the need for extensive study of whether and, if so, how the adjustment should be made in the future, but feel that eliminating it from their analysis is not any more appropriate than including it.

We feel--under the circumstances--that making no adjustment is a more prudent course than making a questionable one. This is especially so since it is not clear, at this point, that separate adjustments--made in this case--are appropriate for production rate and stripping ratio factors. The impact of differences in stripping ratios is clearly documented, but that of differing production rates is not well defined. Economies of scale--cost savings--associated with different production levels may already be considered along with the costs of mining tracts with different stripping ratios. The Service's evaluation team does not fully agree with our view, but can provide no evidence to support the view that separate adjustments should be made. In addition, the evaluation team has not been able to obtain--as they have for their stripping ratio adjustment--industry confirmation on the extent to which differences in production rates affect lease value. In our view, until it can be determined that each variable has an independent impact on tract value the production rate adjustment should be eliminated from comparable sale analyses.

Further, a serious question exists as to whether such an "income related" adjustment--i.e., one that considers the impact of different production rates on coal mine costs and revenues--should be included in comparable sales analysis, which is a "market" oriented technique. Market oriented techniques normally include adjustments for only physical and geologic factors such as stripping ratios and other coal quality features. The Uniform Appraisal Standards point out that "The comparable sales approach normally should be stressed and care should be taken that it does not get lost among other evidence concerning less reliable approaches to value (cost analysis and income analysis)* * *it (comparable sales) is the only approach to value that reflects the balance of supply and demand in actual trading in the marketplace* * *."[4] We believe that including an "income" adjustment for production rate differences in a "market" analysis approach is like "mixing apples with oranges." Moreover, as noted, it may "double account" for differences already considered in the stripping ratio adjustment.

---

[4]"Uniform Appraisal Standards for Federal Land Acquisitions," Interagency Land Acquisition Conference, 1973, p. 9.

Eliminating the production rate adjustment from the regional team's analysis substantially raises the estimated values of many Powder River coal tracts. As shown in table 4-1, according to our calculations, the Wyoming sector tracts were undervalued by about $37.5 million, although one tract--Little Rawhide Creek--was overvalued by over $2.4 million. Montana sector tracts were undervalued by over $35.5 million. For the 11 Powder River tracts receiving bids at the April sale, the production rate adjustment reduced tract values by over $73 million.

Table 4-1

Production Rate Adjustment Impact on 11 Powder River Tracts Receiving Bids at the April 28, 1982, Sale

	Impact on tract value (note a)	
Wyoming tracts:	Increases	Decreases
	----------(Millions)----------	
South Duck Nest Creek		$ 3.003
Keeline		22.440
Little Rawhide Creek	$2.430	
Rocky Butte		0.267
Spring Draw		14.212
Subtotal (net)		$37.492
Montana tracts:		
Coal Creek		9.162
Colstrip A & B		10.314
Colstrip C		2.886
Colstrip D		8.769
Cook Mountain		4.414
West Decker	-----------Bypass-----------	
Subtotal		$35.545
Total		$73.037

a/Figures not exact. See appendix IV for GAO's calculation of revised estimates of tract value.

Tax Effect Adjustments for Small Businesses Should Not Always Be Included in Comparable Sales Analyses

The tax effect adjustment included in the evaluation team's comparable sales analyses rests on the assumption that some

bidders may be small businesses with weaker capital structures. Prevailing market conditions in the Powder River Basin, however, reflect the economies of large-scale mining operations in western States and offer limited mining opportunities for small businesses. Because applying the small business tax effect adjustment always results in a reduction to the estimated lease market value, we believe it should be made only for analyses of tracts set aside for small businesses and situations where small business participation may be anticipated.

Roughly 1.4 of the 1.6 billion tons (over 85 percent) of coal sold at the April and October 1982 Powder River sales was acquired by large, diversified mining and energy companies. Under these circumstances, reducing the value of Powder River leases in consideration of a potential small business tax effect was inappropriate and improperly lowered the estimated market value of the Wyoming leases.

In the economic evaluation team's analysis, only four of the five Wyoming leases were affected by the small business tax effect adjustment. The Keeline tract was unaffected because--as a result of other adjustments--its estimated value before the tax effect adjustment was a negative 2.7 cents per ton.[5] Therefore, no adjustment was made. The Montana tracts all had negative value estimates as well. Table 4-2 shows how much the estimated value of each Wyoming lease was reduced.

---

[5]Before making its tax effect adjustment, the economic evaluation team made all the other adjustments pertaining to physical and economic characteristics. As a result of these adjustments, the analysis indicated some tracts had no value or a negative value. As discussed later in this chapter--under "minimum regulatory prices"--such tracts were offered at a price of $25 per acre.

Table 4-2

Small Business Tax Effect Adjustment Impact on the Estimated Value of Wyoming Powder River Basin Leases

Tract:	Reduction in estimated value (note a) (millions)
South Duck Nest Creek	$ 3.861
Keeline	-0-
Little Rawhide Creek	1.620
Rocky Butte	11.570
Spring Draw	6.783
Total	$23.834

a/Figures not exact. See appendix IV for GAO's calculation of revised estimates of tract value.

Including a small business tax effect adjustment in comparable sales analyses is appropriate under some circumstances. For example, leases designated as small business set-asides--such as Coal Creek--might appropriately be candidates for a tax effect adjustment. Tracts receiving a number of expressions of interest from smaller companies might present another instance where such a tax effect adjustment is appropriate. During our evaluation, the economic evaluation team agreed that the adjustment should be made on a case by case basis after analyzing expressions of interest to determine the size of the companies likely to be involved in bidding for each lease. Service's headquarters concurs.

QUESTIONABLE POLICIES CUT TRACT VALUES AND SET LEASE PRICES TOO LOW

In addition to comparable sales analysis, Interior has policies aimed at (1) considering the impact of tract size and location on market value, and (2) setting a minimum regulatory price on a dollars per acre basis for the coal. We found, however, that these policies are questionable--resulting in substantial undervaluations of coal tracts.

The following sections discuss each policy and its respective impacts on the valuation and pricing of tracts offered at the April 1982 sale.

Tracts Devalued According to 50-50 Split Policy

One of Interior's valuation policies in effect for the April sale was to define tracts which should appropriately be

offered at less than their full value. This was the so-called 50-50 split policy for small tracts--including maintenance tracts. Large tracts were offered at full value. Small tracts, however, could be priced at full value only if mining around the tract (bypassing it) would not cause a company economic sacrifice. This policy also required that the small tract which could be mined around could also be mined economically as part of a hypothetical "logical mining unit," but was not next to an existing unit.[6]

The economic evaluation team agrees that in the current coal market, which includes little demand for new mining operations, it is not clear whether a policy reducing the value of certain small tracts--especially maintenance tracts--next to existing operations is appropriate. Interior officials in the Office of Policy Analysis also pointed out that it is inappropriate to follow the split value policy when the comparable sales analysis valuation technique is used. This policy has recently been discarded. Nevertheless, the values of three tracts in Wyoming and one in Montana--calculated using comparable sales analyses--were cut in half, resulting in their devaluation by about $25 million, as shown in table 4-3.

One of the four tracts--Fortin Draw--was later withdrawn from the sale because an error in resource data was discovered. Another tract--Spring Creek--did not receive a bid. Therefore, the 50-50 split policy affected only two tracts--Little Rawhide Creek and South Duck Nest Creek--whose values were reduced $12 and $3.6 million, respectively.

---

[6]Logical mining units are composed of that amount of land needed for efficient, economical, and orderly mining production.

Table 4-3

April 1982 Powder River Sale
Small Tract Value Split In-Half (note a)

Tracts	Service-estimated market values		Market values after policy adjustment	
	Cents/ton	$ Millions	Cents/ton	$ Millions
Wyoming				
Little Rawhide Creek	26.8	24.0	13.4	12.0
South Duck Nest Creek	5.0	7.2	2.5	3.6
Fortin Draw	11.0	5.0	5.5	2.5
Montana				
Spring Creek	39.0	13.6	19.5	6.8
Total		49.8		24.9

a/Values are not adjusted to correct errors in resource data identified in chapter 3. Also, see appendix IV for GAO's calculation of revised estimates of tract value.

The Fortin Draw tract was offered at the October 1982 sale, but this time its value was not reduced. According to Service officials, Bureau of Land Management coal leasing regulations published July 30, 1982, and interim Service coal lease sale procedures published September 13, 1982, superseded the earlier evaluation policy guidance. Thus under the new procedures--in effect for the October 15, 1982, Powder River Sale--Fortin Draw was offered at 100 percent of its estimated market value.

Minimum Regulatory Prices do not Assure Market Value will be Received

A weakness surviving recent procedural changes, however, is Interior's policy of setting minimum regulatory prices for certain coal leases on a per-acre basis. Coal lease prices are set at the regulatory minimum when

--comparable sales analyses result in negative values,

--a small coal tract cannot be mined as part of a logical mining unit, or

--a small tract can be bypassed, but mining around it will not cause the mining company to suffer an economic sacrifice.

In July 1982 Interior raised the new minimum regulatory price from $25 to $100 per acre effective August 30, 1982, but this does not solve the problem. Coal is a heterogeneous resource occurring in various amounts, geologic formations, and qualities in different Federal coal regions. Regulatory minimums should be expressed in cents per ton per coal region to properly reflect coal value. The current policy of setting regulatory minimums on an acreage basis does not consider resource occurrence differences and can result in significant undervaluation of Federal coal and receipt of less than fair market value. Based on information provided by Interior's Office of Policy Analysis, the 6 Powder River tracts priced at the then regulatory minimum of $25 per acre could have brought another $5 million had they been properly priced on a cents per ton basis. We did not verify this information, however, and thus, did not include the $5 million in our revised estimate of coal tract values. Nonetheless, we believe this policy needs to be changed.

The potential for substantial lease undervaluation can be seen through analysis of the amount of coal (in-place tons) in an average acre of those tracts priced at the regulatory minimum. According to the mining engineer on the economic evaluation team, estimating in-place tons per acre provides a common denominator for analyzing tracts which are geologically similar. Table 4-4 contains our analysis of the team's in-place tons-per-acre estimates for each of eight Powder River tracts priced at the $25 minimum for the April 1982 sale. The analysis shows several instances of tracts being priced the same as those with only half as much coal per acre.

Table 4-4

Analysis of Differences Among In-Place Coal Tons Per Acre For Powder River Coal Tracts Priced at $25 per Acre

Tract	Average coal seam thickness	In-place coal tons per acre
Wyoming		
Keeline	40	70,800
Kintz Creek	45	79,650
Timber Creek	25	44,250
Montana		
Coal Creek	50	88,500
Colstrip A&B	23	40,710
Colstrip C	25	44,250
Colstrip D	25	44,250
West Decker	52	92,040

Interior argues that when valuation analyses turn out negative values, and/or when coal might be bypassed if not sold, leases should be offered at a regulatory minimum sufficient to discourage nonserious or speculative bidders. In our view, recognizing the nature of Interior's market value estimates, discouraging insincere bidders is a questionable basis for establishing a minimum regulatory bid, and by itself does not provide for the receipt of fair market value.

Interior studies have questioned the use of regulatory minimums set on a per acre basis. For example, in a June 11, 1982, draft of an Office of Policy Analysis study entitled "Options for Assuring the Receipt of Fair Market Value for a Federal Coal Lease," a 2 cents per ton price was proposed as an immediate change in policy. The study's discussion of the proposed option was as follows:

> "* * *The current $25 an acre floor price is a nominal price. Greater assurance that fair market value was being received could be obtained by having a floor price that reflected a low estimate of the economic rents of coal tracts capable of competing in the near future for contracts to supply coal to a major coal user. Such rents in the Powder River Basin are estimated to be in the range

of two to seven cents a ton. Because of relatively flat supply curves, the economic rents on a per-ton basis are likely to be lower in this region than in other coal regions. Thus, a floor price of two cents a ton for Federal coal leases would likely be a significant improvement over the current $25 an acre floor price in terms of assuring FMV receipt, while at the same time it would still be a conservative price unlikely to restrict the leasing of coal that is needed to meet the demand for coal reserves in any region.* * *"

In addition, the Service's economic evaluation team, in its Montana and Wyoming Powder River Basin Coal Resource Economic Valuation reports (dated Mar. 10, 1982, and Mar. 26, 1982, respectively), questioned the $25 per acre regulatory minimum then in effect. Both reports pointed out that if a lease is sold at the regulatory minimum, the return of monies would be substantially lower than if the Federal Government were to charge only 1 cent per ton.

The Montana report pointed out that in a typical Montana Powder River coal seam--50 feet thick--there are approximately 88,500 tons of coal per acre. If the Government would charge only 1 cent per ton, the report continued, the bonus shared by the State and Federal Government would be $885 per acre. The Wyoming report contained a similar example involving a typical 70-foot seam containing 120,000 tons of coal per acre and selling for $1,200 instead of $25 per acre. These numbers are somewhat misleading, however, because the average coal seam thickness of the eight Powder River tracts priced at $25 per acre is about 35 feet.

Though setting the minimum regulatory price on a cents per ton basis would not have guaranteed receipt of fair market value for the eight Powder River tracts analyzed, we believe it would have resulted in a more realistic value. Appendix III contains an analysis--for each of the April 1982 tracts priced at the then $25 per acre minimum--of the actual selling price versus what these tracts would have brought if sold at either 1 or 2 cents per ton prices.

- - - -

In summary, we found that the approach used by Interior's regional economic evaluation team for estimating values for the Powder River coal tracts offered at the April sale was not unreasonable under the circumstances, although revisions were needed to back out some inappropriate adjustments included by the team. Revisions were needed for

--a purely speculative adjustment designed to reflect economies of scale associated with different-size mining operations (i.e., a production rate adjustment);

--a tax effect adjustment which should have been used only for those tracts set aside for, or of known interest to, small businesses; and

--the effect of an inappropriate policy--since discarded--whereby certain small tracts were reduced in value by 50 percent.

The resulting revisions--as calculated in appendix IV--show that Interior's original MABs were undervalued by $95 million. In the absence of competition at the sale and weaknesses in the Department's postsale fair market value determinations, these revised values could and should have been used as the basis for evaluating the reasonableness of bids offered at the sale, as further discussed in chapter 5.

CHAPTER 5

DID POWDER RIVER COAL TRACTS SELL

AT FAIR MARKET VALUE?

On April 28, 1982, Interior offered for sale 13 lease tracts containing roughly 1.6 billion tons of Federal coal. Of the 11 tracts receiving bids, we found that 9 sold for over $110 million short of our revised estimates of their market value. At the October 1982 followup sale, one of the two tracts offered sold for over $5 million less than our estimate of its value. As a result of weaknesses in Interior's postsale fair market value determination procedures and the manner in which they were applied, all but one of these bids were accepted by Interior. In our view, even considering declines in the demand for coal production, 10 of the 13 bids received were well below market value and should have been rejected. Of these 10, Interior rejected only 1 in its postsale evaluation.

We found Interior's postsale procedures for determining whether a bid should be accepted or rejected as fair market value weak and overly dependent on the existence of genuine competition at the actual sale. Absent competition, they did not provide a sound basis for determining market value. As such, the original lease value estimates--revised as noted in chapter 4--would have provided the essential benchmark Interior needed for determining the reasonableness of the bids offered for the Powder River tracts. Had this been done, we believe most of the bids would have been rejected.

Following is a discussion of the Secretary of the Interior's responsibility to obtain fair market value and his latitude in determining whether a bid should be accepted as fair market value. This provides the perspective needed for our analysis of weaknesses in Interior's postsale fair market value determination procedures--both the experimental procedures used for the April sale and the current interim procedures used for the October followup sale. In light of these weaknesses, we then evaluate the reasonableness of bids for tracts offered at the April and October 1982 sales when measured against our revised estimates of their real worth.

THE SECRETARY'S RESPONSIBILITY

Under the Federal Coal Leasing Amendments Act of 1976, which amended the Mineral Lands Leasing Act of 1920 [30 U.S.C. 201(a)(1)], the Secretary of the Interior must award coal leases by competitive bidding, but shall accept no bid which he determines is less than fair market value--a term not defined by the Act. Interior regulations, however, define it as "that amount in cash, or on terms reasonably equivalent to cash, for which in all probability the coal deposit would be sold or leased by a knowledgeable owner willing but not obligated to sell or lease

to a knowledgeable purchaser who desires but is not obligated to buy or lease."

The "fair" element of the term "fair market value" applies to the method of determining market value. The market value of the coal does not necessarily have to be "fair." Rather it is to reflect the lease's value at the time and place of the sale--fairly determined. Thus the method utilized by the Secretary of the Interior to determine the market value of the lease must be suitable for this purpose.

THE SECRETARY'S DISCRETION

The Secretary has substantial discretion in making fair market value determinations. In large measure this is because the assessment of market value, which involves the use of assumptions, is inherently imprecise. It is an informed estimate. Therefore, the Secretary's determination of fair market value is usually considered reasonable unless a clear error in judgment or abuse of discretion can be shown. Such abnormalities may arise only when the basis for the Secretary's determination is substantially flawed.

As stated earlier, before accepting a bid the Secretary is responsible for determining whether the bid reflects the tract's value at the time and place of the sale and that the method or basis for determining this value is fair. Interior recognizes that true competition among several bidders, each with a similar interest in and ability to mine coal efficiently--and relatively equal in all other respects--is the best indicator of market value and the strongest basis for accepting a bid as fair market value. Absent true competition, however, recent arm's length sales transactions for relatively comparable property are also valid indicators providing a sound basis for accepting a bid as fair market value. In the latter case, however, comparable sales analyses must be made to adjust for differences between the physical characteristics, market conditions, lease terms and provisions, and any other factors distinguishing the sold tract from the one(s) being offered.

In the case of the Powder River coal leases, analysis of data from the actual sale was the principal method the Secretary used for determining the market value. At issue is whether this method was used in a manner which reasonably supports Interior's fair market value determinations. Without genuine competition at the sale, however, we believe Interior's method did not provide an adequate basis--that is, constitute a fair method--for determining market value. In our view, comparable sales analysis of prior sales--revised as discussed in chapter 4--could and should have been used as the essential benchmark for bid accept/reject decisions.

POSTSALE PROCEDURES DID NOT PROVIDE A SOUND BASIS FOR DETERMINING FAIR MARKET VALUE

Interior's postsale fair market value determination procedures--like its bidding systems--are driven by Interior's desire to provide additional emphasis on market indications for measures of fairness or reasonableness. Both the experimental postsale procedures used for the April sale and the current interim procedures published on September 13, 1982, and used for the October followup sale, rely heavily on actual sale results data as the foundation for fair market value determinations. For this approach to work, however, at least some of the offered tracts must stimulate genuine bidding competition. Without good evidence of bidding competition, these procedures do not provide an adequate market basis for accepting or rejecting bids.

At the April sale, only two new production tracts--Keeline and the small business set aside, Coal Creek--brought any measure of competition, although even here it was limited to two bidders, with actual selling prices not even bid up to 1 cent per ton. Apart from this limited bidding, no other evidence of competition at either sale exists.

Even though real competition was not present, prior comparable sales analysis was not given much consideration in the experimental postsale procedures used for the April sale, nor in the interim procedures used for the October sale. Instead, and in keeping with its desire to use data from the actual sale as the measurement tool, Interior relied on an analysis of the bid(s) for each tract against the bids received for similar tracts in the sale as a basis for determining bid acceptance or rejection.

ANALYSIS OF EXPERIMENTAL AND INTERIM POSTSALE FAIR MARKET VALUE DETERMINATION PROCEDURES

The experimental postsale procedures used for the April sale and the current interim procedures used for the October followup sale impose the same three basic tests for bid accept/reject decisions. These tests for receipt of fair market value--involving (1) determination of adequate competition, (2) comparable high bid analysis, and (3) examination of special circumstances--are applied to the high bids received for each tract. The tests are ordered in a checklist fashion for an accept/reject decision for each step. Once an accept decision is reached, the analysis can be terminated and the bid accepted. Table 5-1 compares the postsale procedures used for the April and October sales.

Table 5-1

Comparison of Postsale Fair Market Value Determination Procedures for Powder River Sales

Experimental procedures (April 28, 1982 sale)	Interim procedures (October 15, 1982, sale)
1. Determination of adequate competition	1. Competition analysis
a) competitive market structure	a) competitive market
b) bidder participation	b) bidder participation
c) high bid offered	c) high bid analysis
2. Comparable high bid analysis	2. Detailed comparable high bid analysis
a) range of bids analysis: high bid must be clearly within range of bids for comparable tracts	a) geometric mean analysis: high bid must exceed average value of comparable tracts
	b) postsale adjustment for current market conditions
3. Examination for special circumstances	3. Examination for special circumstances
a) circumstances or additional public benefits such that the department might have greater than usual willingness to sell	a) circumstances may be derived from Government losses due to delays, important public objectives, and uncertainties over tract comparability or the adjustment and estimation process

Both procedures call for a determination of whether "adequate competition" has been demonstrated, based on a combined tract profile which must consider three criteria--market structure, bidder participation, and high bid offered. If a bid cannot be accepted under these criteria, it is subjected to further analysis of "comparable high bids."

Both procedures for "comparable high bid" analyses consider available tract and bidding data from the actual sale but do not give appropriate consideration to prior arm's length sales of comparable lease tracts. The earlier experimental procedures differed slightly from the current interim procedures. The experimental procedures called for development of a range of

comparable value estimates from the bids for selected base tracts. If the actual high bid for the tract being analyzed was within or above the range set from bids on other tracts in the sale, the bid would have been accepted. Under the interim procedures, bids for comparable tracts offered at the sale are averaged to develop an estimate of market value to which the bid for the tract being analyzed is compared. In addition, a post-sale adjustment may be made for current market conditions. If the actual high bid for the tract being analyzed is above the adjusted average, it may be accepted.

Both procedures also call for consideration of "special circumstances." Under the experimental procedures, the examination for special circumstances was an integral part of the post-sale analysis. The intent was to indicate whether special circumstances or additional public benefits from leasing were such that the Department might have a greater than usual willingness to sell, and thus would be willing to accept the high bids as fair market value. Under the interim procedures, an accept/reject recommendation based on the results of the competition and comparable sales analyses is made before any special circumstances are considered.

Under the experimental procedures most of the special circumstances examined were related to revenue. Factors then warranting consideration included the likelihood of a higher bid resulting from a reoffering of the lease at a later sale, size of the potential final loss to the Government, expected revenue losses due to delays in mining coal, and impacts on future coal lease bidding. Under the interim procedures, the potential loss of Government revenue due to delayed leasing is the only revenue-related factor warranting consideration.

We found, however, that these three basic tests--the "competition analysis," "comparability analysis," and "special circumstances"--which Interior used to evaluate bids for both the April and October sales allowed virtually any bid to be accepted regardless of whether it approximated fair market value. Either set of procedures might have been acceptable for Powder River sales if several tracts had brought genuine bidding competition. Most of the leases offered, however, were maintenance tracts for which there is a predictable, noncompetitive demand in the western coal market. Due to their size and location, these tracts usually attract no more than one bidder. Since the bulk of the current demand for Federal coal is for maintenance leases, active bidding competition for new production lease tracts also is highly unlikely.

The principal weaknesses in the procedures and how they were applied are discussed below.

Weaknesses in the Experimental Postsale Procedures Used for the April 1982 Sale

The experimental postsale procedures used for the April 1982 sale were flawed on several counts, chiefly stemming from an overdependence on data from the sale itself. In addition, the procedures included questionable criteria and lacked clarity as to what weight should be assigned to individual factors considered under the three basic tests. These tests are discussed below.

Interior's determination of adequate competition

In determining the adequacy of competition, two aspects of the "competitive market structure" were to be considered: (1) special advantages or disadvantages for any companies bidding or potentially bidding and (2) external conditions inhibiting competition in general. It was unclear, however, what the specific advantages or disadvantages might be and what, if anything, they meant in the context of accepting or rejecting a bid. For example, should bids from companies with different capital structures, assets, revenue sources, obligations, debt financing arrangements, etc., have been evaluated differently since all can result in some measure of advantage or disadvantage? Also, what were the external conditions inhibiting competition in general and what do they mean?

Other areas of analysis also appeared questionable. In considering "bidder participation," for example, procedures called for a record of the pattern of oral bidding. Interior officials could not, however, explain the relevance of bidding patterns to the receipt of fair market value.

In addition, the manner in which Interior applied the "bidder participation" criteria illustrates the weaknesses in its procedures, particularly as it involved the West Decker tract. According to an Interior analysis, bidding for the Coal Creek, West Decker, and Keeline tracts indicated true competition between rivals. In our view, bidding for the Coal Creek tract--a small business set-aside--and the Keeline new production tract appeared competitive. Bidding for the West Decker tract, however, did not appear to represent competition between two companies who both sincerely desired the tract because--as a bypass tract--it could only have been mined by one company, Peter Kiewit Mining Company.

West Decker was a maintenance tract covering only 40 acres. According to Interior officials, the tract would have been bypassed had it not been offered at the sale. Bidding for it, as well as for the Keeline tract which was sold before West Decker, involved the same two companies: Neil Butte Co., a consortium of ranchers not presently engaged in coal mining, and

Peter Kiewit Mining Co., which currently operates mines in the Powder River Basin.

When the Keeline tract was sold, both Neil Butte and Kiewit-Rosebud submitted sealed bids. When oral bidding commenced, 46 bids in $10 per acre increments were made with Neil Butte offering the final winning bid of $500 per acre. The West Decker tract was sold later. Only Kiewit-Montana Royalty submitted a sealed bid. Under the rules of the sale, because Keeline and West Decker were in the same price category, Neil Butte could participate in the oral bidding session. During oral bidding, Neil Butte made bids of $100, $200, $300, and $490 per acre. Kiewit-Montana Royalty countered with bids $10 per acre higher and was the winning bidder with a final bid of $500 per acre--the price to which it previously bid up the Keeline tract.

In our opinion, the sincerity of Neil Butte's bids for a 40-acre, maintenance-type tract only mineable by Kiewit is highly questionable. We believe Interior's decision to accept the winning bid for West Decker as the product of "true competition between rivals" was highly questionable and adds another measure of uncertainty about the Department's ability to make a fair market value determination. As a bypass tract West Decker could have been sold--without question--under "special circumstances" criteria.

Finally, under the "high bid offered" criteria for testing adequate competition Interior considered the size of the increase from the floor--or entry level--bid and from the maximum sealed bid to the final bid. But this seems to us very imprecise in the context of fair market value determination since neither is necessarily related to market value.

In addition, under the same criteria, a qualitative assessment of the adequacy of the high bid relative to high bids received for other comparable tracts in the sale was also required. How such an assessment might have been made and its bearing on fair market value determination are not clearly stipulated in Interior's procedures. In evaluating bids for the April sale, the economic evaluation team informed headquarters of their uncertainty over the usefulness of this type of assessment and its relationship to minerals evaluations.

Weaknesses of the "high bid offered" criteria allowed Interior to accept the bids for 6 tracts: Colstrip A & B, C, and D, Cook Mountain, Spring Draw, and South Duck Nest Creek on the basis that the bids exceeded presale or adjusted presale estimates of lease value.

Interior's comparable high bid analysis

The "comparable high bid" analysis of Interior's experimental procedures again did not adequately consider prior sales

information. Instead, it focused on data from the actual sale. A range of comparable value estimates for each tract analyzed was developed from bids on other tracts offered at the sale. Because the range could vary based on how many and which tracts were selected for the analysis, the criteria were theoretically weak. If the tract being analyzed was within or above the range, its bid was acceptable. Though such criteria permitted a wide range from the lowest to the highest bid offered for other tracts considered of comparable value in the sale, this theoretical weakness did not come into play at the sale. The bid for the Rocky Butte tract, for example, was not considered acceptable under this test.

According to Interior's analyses, the bid for Rocky Butte compared unfavorably against its presale estimate of value and actual bids received for three comparable tracts: South Duck Nest Creek, Keeline, and Spring Draw. The last two comparable leases were--like Rocky Butte--new production tracts. The new production tracts were quite similar in most attributes and South Duck Nest Creek, a maintenance tract, had an identical published entry level bid of 2.5 cents per ton of recoverable coal. Interior found that the bid for Rocky Butte equaled but 42 percent of its presale estimate of value and the same percentage of the actual bids received for the three comparable tracts. Since Interior's informal guidelines required rejection of bids less than 70 percent of comparable tract value, the bid for Rocky Butte could not be accepted under this criterion.

Interior's examination for special circumstances

Interior's experimental procedures also permitted consideration of "special circumstances" such as the possibility of a higher bid at a future sale, expected revenue losses, and impact on bidding for other tracts at future sales. Under this test, consideration was to be given to the reliability of information concerning the true extent of bidding competition and the true value of the tract in comparison with other tracts. Criteria were directed at identifying acceptance situations when the Government could have a greater than usual willingness to sell.

The potential for bypass of coal or shutdown of existing mining operations if a tract is not leased may be circumstances appropriately warranting special consideration. Care must be taken, however, to guard against potential abuses. Quantitative criteria expressed in tonnage, years of operation, mining conditions, or other factors would safeguard against acceptance of questionable bids and/or acceptance of bids on tracts with only limited bypass potential.

Accepting the bid for the Little Rawhide Creek tract, for example, under "special circumstances" would not have been as questionable if there had been clear, quantitative tests evidencing the propriety of its acceptance. As it stands, Interior's determination that the tract was a potential bypass

tract--qualifying it for consideration under special circumstances--was highly questionable. We believe the tract's bypass potential is not clear because it contains 90 million tons of coal in 100 to 125 foot thick seams, is next to unleased Federal coal, and beneath a comparatively shallow layer of overburden.[1] With a stripping ratio of approximately 1.5 to 1.0, such a tract--clearly one of the best offered--could support continued operations at the Powder River Basin's largest mine for 5 years or more. The economic evaluation team pointed out that although the tract's potential for bypass is not great, there nonetheless is some--albeit limited--potential, which was all the bid acceptance criteria required.

The weakness of this test becomes even clearer when examined in light of the procedures Interior followed in setting the price for the Little Rawhide tract. The economic evaluation team originally valued the tract at 26.8 cents per recoverable ton of coal or roughly $45,500 per acre. In deference to the 50-50 split policy then in effect, the tract's value was cut in half to 13.4 cents per ton--about $22,750 per acre. Next, Interior management determined--without the benefit of supporting economic analysis--that the tract's selling price would be 8.0 cents per ton--roughly $13,600 per acre. In effect, Little Rawhide Creek thus was priced at about 30 percent of its original estimated value. The sale bid for the tract was 8.2 cents per ton--about $14,000 per acre. Despite the tract's substantial undervaluation, the only postsale fair market value test the bid could pass came under the "exception to the rule" category of "special circumstances". Considering the questionable procedures governing the determination of tract value and the tract's limited bypass potential, we question Interior's determination to accept the 8.2 cents per ton bid for Little Rawhide Creek.

Weaknesses Of Interior's September 13, 1982 Interim Postsale Procedures

The interim postsale procedures used for the October followup sale contain many of the same flaws as the earlier procedures. The (1) competition analysis, (2) detailed comparable high bid analysis, and (3) examination of special circumstances tests, discussed below, indicate that more rigorous bid evaluation is needed. Like the experimental procedures, their basic weaknesses stem from similar overreliance on actual sales data, which--absent competition--is an uncertain indicator of market value.

---

[1]Overburden is the soil, rock, shale, etc., covering a coal seam.

Interior's competition analysis

Under "competition analysis," Interior deleted the previous test of "external conditions inhibiting competition in general" and substituted "consideration of the known existence of a relationship among bidders on the tract which might influence their competitiveness." Exactly how such relations might come to light, what kind of relationship(s) might be considered, and how they would be weighed in the context of fair market value, however, are unclear.

In considering "bidder participation," the number of reasonable bids submitted for the tract is the only factor considered. What constitutes a reasonable bid, however, is not defined, but can--according to the procedures--be determined, based on a screening process similar to the one used under the "high bid offered" criteria. However, the high bid offered procedures do not explain the screening process or how it should be applied.

The "high bid offered" criteria include a qualitative ranking of high bids on tracts relative to acceptable high bids on comparable tracts in this sale and prior sales. This procedure raises a question as to the propriety of using qualitative assessments in what are essentially quantitative fair market value determination procedures. Even if this question is overlooked, the procedure is not explicit enough to suggest how the bids for offered tracts could be determined as acceptable through a qualitative assessment. Nor is it clear--as was the case with the experimental procedures--how the assessment would be made in the absence of competition.

Since the two tracts offered at the October sale received only one bid each, the "competition analysis" criteria of the interim procedures did not apply. However, because of the above described weaknesses, these interim procedures continue to be questionable.

Interior's detailed comparable high bid analysis

Under "detailed comparable high bid analysis," prior sales information is again given little consideration. As stated earlier, we believe that when genuine bidding competition does not occur, comparability analysis of prior sales should be the primary factor influencing fair market value determination. The interim procedures, however, only mention utilizing prior sales information but do not stipulate how the information will be used. Instead, they discuss how an average comparable value estimate should be developed for each tract using data from the actual sale.

There is a serious question whether the average of bids rendered without competition--none of which may equal market value--should be used as a criterion for determining if another

bid equals market value. The procedures also allow for an undefined postsale adjustment for changes in coal market conditions. The ability to select the bids to be averaged and then to adjust the average in an undefined manner allows Interior broad latitude to accept or reject virtually any bid and, as we discuss below, to apply bid acceptance criteria in an inconsistent manner.

Interior's "detailed comparable high bid" analysis for the Fortin Draw and Rocky Butte tracts relied on data from tracts sold at the April sale, since only two tracts were offered and data was lacking from the October sale itself. However, considering that virtually none of the April sale tracts sold competitively, Interior's decision to use them as comparables was questionable. In our view, it is difficult to see how essentially noncompetitive sales can be used as a yardstick for fair market value determinations. In addition, Interior's inconsistent treatment of the sales data, which did not consider its own criticisms of the methodology (discussed below) raises additional questions about the validity of this aspect of the current fair market value determination procedures. Below, we evaluate how Interior analyzed bids for Fortin Draw and Rocky Butte.

--The Fortin Draw tract was analyzed against the Little Rawhide Creek tract sold in April 1982. The physical characteristics of each tract were compared and adjustments made to account for differences in average Btu rating, reclamation and surface purchase costs, average stripping ratio, and tax effects. The Btu and reclamation adjustments were minor, reducing the comparable tract's value base about 1.4 cents from 8.2 to 6.8 cents per recoverable ton. No stripping ratio adjustment was made because the tracts were nearly identical in this characteristic. Based on Interior criticisms of regional comparability analysis methods voiced after the April 1982 sale, no additional adjustments should have been made. However, Interior further reduced the 6.8-cent value by another 2.6 cents to account for small business tax effects, even though no small business was involved. Ironically, Interior previously criticized this adjustment as speculative and unnecessary. Including it in the postsale analysis reduced the estimated value of the Fortin Draw tract from 6.8 to 4.2 cents per recoverable ton--thus making the 5.1 cents per ton offered more acceptable.

--The comparable high bid analysis for the Rocky Butte tract featured the same adjustments as Fortin Draw--plus a production rate adjustment. The production rate adjustment--like the one for tax effects--was previously criticized as speculative by Interior. This adjustment was the largest made in the analysis of two comparable tracts--Keeline and Spring Draw--taken from the April

1982 sale. If one had been made for the Fortin Draw tract it would have, according to the economic evaluation team, driven the tract value down to a negative number.[2] Conversely, if one had not been made for Rocky Butte, its value before the tax effect adjustment would have been less than zero--making virtually any bid acceptable and possibly calling into question Interior's decision to reject the April 1982 Powder River sale bid of 2.5 cents per ton.

Interior officials were unable to explain why (1) they applied the production rate adjustment in the case of Rocky Butte but not in the case of Fortin Draw and (2) a small business tax effect adjustment was made even though no small businesses were involved. These inconsistencies, unaccompanied by a sound technical explanation, lead us to conclude that Interior needs a more objective method for making fair market value determinations. From our evaluation of the April and October 1982 Powder River sales, and the attending pre- and postsale procedures, it is not clear--in this case--whether Interior's analytical efforts are directed more at supporting preconceived views of value than at fairly determining it.

Interior's examination for special circumstances

The interim procedures, unlike the earlier experimental ones, provide for "examination of special circumstances" independent of--but concurrent with--an accept/reject decision based on the competition and comparability analyses discussed above. The examination is intended to reveal special circumstances having an overriding effect on the accept/reject decision. Some of the same factors examined under the experimental procedures are still considered. According to the interim procedures, the special circumstances may be derived from Government losses from the delay in sale of tracts, consideration of important public objectives (e.g., potential coal bypass situations), and uncertainties in the comparability of tracts used for comparison or in the adjustment and estimation processes.

Again, allowing adjustment for such factors as Government losses due to delays in lease sales or uncertainties about comparable tracts and/or their valuation provides an even greater measure of flexibility in an already pliant fair market value determination procedure.

- - - -

---

[2]The economic evaluation team calculated a production rate adjustment of 16.95 cents per ton. Applying this adjustment would have reduced the value of Fortin Draw to a negative 10.15 cents per ton.

In view of the substantial weaknesses in Interior's post-lease fair market value determinations, just discussed, the question of reasonableness in accepting bids for tracts offered at the April and October 1982 sales is raised. Our analysis follows.

MOST POWDER RIVER TRACTS SOLD FOR LESS THAN FAIR MARKET VALUE

We found that bids accepted for tracts at the April 1982 Powder River sale were less than half of our revised estimates of market value. Bids at the October followup sale were also well below estimated market value. At issue is the scope of the Secretary of the Interior's discretion in determining to accept a bid as representing market value. In examining the Secretary's determinations of market value, the basic question is one of reasonableness. Can a decision to accept or reject a bid be logically justified or was there a clear error in judgment? Our analysis of accepted bids as a percentage of our revised value indicated that Interior erred in accepting many bids for both new production and maintenance leases offered at the two sales.

Only one of 11 high bids at the April sale--that for the Cook Mountain new production tract--appears clearly acceptable. Two other new production tracts--Spring Draw, offered at the April sale and Rocky Butte, offered at the October sale--received bids that while not clearly unacceptable in our view, are at least questionable. In our opinion, all of the April and October sale bids for maintenance tracts should have been rejected. The following sections discuss our analysis of the reasonableness of bids for new production and maintenance tracts, respectively.

Most New Production Tracts Received Unreasonable Bids

Of the five new production tracts receiving bids at the April sale, the bids for three tracts--Keeline and Rocky Butte in Wyoming and Coal Creek in Montana--were less than a 30 percent lower limit of our revised estimates of market value and, we believe, clearly unacceptable.[3] The bid for Spring Draw was

---

[3]The 30 percent limit, as discussed later in the text, was derived from the Dec. 1982 private assignment market sale of the Dry Fork coal tract in the Wyoming Powder River Basin. The tract, which sold at a distress sale for 30 percent of its July 1980 competitive purchase price, was originally used in Interior's comparable sales analyses to estimate the value of Federal coal leases in the Powder River Basin. We use the 30 percent figure as an indicator of the lowest possible level of bid acceptability.

approximately 48 percent of our revised value and at least questionable, even under the circumstances, while the bid for Cook Mountain exceeded both the Service's and our revised estimates of tract value. The bid for the Rocky Butte tract, reoffered at the October followup sale, was approximately 60 percent of its estimated value and again, while not clearly unacceptable, is at least questionable under the circumstances. Table 5-2 contains an analysis of the bids received for Wyoming and Montana new production tracts against our revised estimates of value calculated in appendix IV.

In determining the reasonableness of bids for new production tracts, some consideration must be given to the change in demand for new coal production. As discussed in chapter 4, the bulk of current demand for Wyoming coal likely stems from supply contracts written in the mid-1970s or earlier. The scarcity of opportunities for new coal supply contracts makes acquisition of new production tracts a somewhat risky proposition and drives down their value accordingly. Although the extent to which tract value is reduced is uncertain, a recent distress sale in the assignment market gives some indication of the impact of changes in demand on market value.

Table 5-2

Reasonableness of Bids Analysis for Powder River New Production Tracts

	GAO revised value (cents per ton)	Actual bid (cents per ton)	Percent of revised value	GAO revised value ($millions)	Actual bid ($millions)	Difference ($millions)
Wyoming Sector: April 28, 1982						
Keeline	12.6	.95	7.5	21.5	1.6	19.9
Rocky Butte a/	9.2	2.5	27.2	41.1	11.2	29.9
Spring Draw	16.7	8.0	48.0	54.1	25.9	28.2
Montana Sector: April 28, 1982						
Coal Creek	17.0	.6	3.5	10.2	.4	9.8
Cook Mountain b/	N/A	2.5		N/A	4.4	
Wyoming Sector: October 15, 1982						
Rocky Butte	c/8.25	5.0	60.0	36.7	22.3	14.4

a/Based on July 1980 sale of the Dry Fork, Wyoming, tract which Interior used as the comparable tract for estimating the value of the Rocky Butte tract.

b/The economic evaluation team originally valued the Cook Mountain tract at a negative 7.3 cents per ton. Even after eliminating the team's 2.5 cents per ton adjustment for production rate differences, however, the estimated tract value was still negative--a minus 4.8 cents per ton.

c/Based on the revised estimates of market value for the Keeline and Spring Draw, Wyoming, tracts which Interior selected as the comparable tracts for estimating the value of the Rocky Butte tract.

The sold property is particularly useful to our analysis because it was the comparable tract used by the Service's regional economic evaluation team to develop presale lease value estimates for the April sale. Containing three Federal leases and some State and fee lands, the property was originally acquired in July 1980 for approximately $75 million. The Service valued the Federal leases at almost $68.5 million--about 91 percent of total property value. The entire property recently sold for approximately $23 million. Assuming the same 91 percent ratio of Federal leases to total property value, the Federal portion sold for roughly $21 million--about one-third of the July 1980 value.

The usefulness of this recent distress sale, however, must be substantially qualified. The motivation for such a sale and other constraints operate against the receipt of fair market value and thus limit the usefulness of distress sale data in measuring fair market value. We understand, for example, that the selling company was being acquired by a larger concern which needed cash to pay off loans taken to finance the acquisition. The liquid assets of the company being acquired would provide a ready source to the future parent company. Accordingly, the company being acquired was directed on short notice to dispose of certain assets for whatever the market would bear. In order to ensure tax benefit accrual to the company being acquired, the sale had to be completed within a few weeks but definitely before a final merger date. Though corporate officials would neither confirm nor deny our understanding, the motivation for this sale--and the time constraint imposed--clearly differ from those surrounding a Federal coal lease sale and must be weighed accordingly.

The facts pertaining to the distress nature of the sale were undoubtedly reflected in the coal market in the form of lower prices. Though the usefulness of the sale results as an absolute yardstick for market value is questionable, it might be indicative of the "rock bottom" or least value of a comparable new production tract. As such, we have used the results as the lower limit of reasonableness in Interior's discretion for accepting bids as fair market value.

If used as a least value indicator, the recent sale results suggest that only new production tracts receiving bids of at least one-third or more of their estimated presale value might even be marginally acceptable. April sale bids for the Keeline and Rocky Butte and Coal Creek tracts--which were 7.5, 27.2, and 3.5 percent, respectively, of their revised MAB values--fall beneath the least value cutoff and thus clearly were not acceptable. Since the Rocky Butte tract, when reoffered at the second sale, received a bid equal to about 60 percent of its value, its acceptance, while questionable, does not appear to be clearly unreasonable under the circumstances.

The bid of $25.9 million on the Spring Draw tract was approximately 48 percent of our revised estimate of market value. Although we again have some concerns, under the circumstances, Interior's acceptance of this bid does not appear clearly unreasonable when declines in tne demand for new mine production are weighed. The other tract--Cook Mountain--was originally valued at less than one-tenth of 1 cent per ton (0.029 cents per ton or $25 per acre). However, when Interior included it as one of four candidate tracts for the first planned test of tne experimental concept of intertract bidding, it was offered at a 2.5 cents per ton entry level price. Since surface owner consents for the other three candidate tracts were not filed, the intertract bidding experiment was abandoned. Through an oversight, however, Interior left the Cook Mountain tract priced at 2.5 cents per ton. A bid for that amount was made and, in our view, it was the only clearly acceptable one of the April sale.

All Bids for Maintenance Tracts Were Unreasonable

Of the six maintenance tracts receiving bids at the April sale, two were in Wyoming and four in Montana. Our lower limit test--30 percent of revised tract value estimates--used in measuring the reasonableness of bids on new production tracts is not appropriate for judging bids for maintenance tracts. Because the demand for maintenance tracts cannot be shown as varying dramatically over recent years, the bids for them should not have changed over the same period. Maintenance tracts, therefore, should bring approximately the same price today as when tracts were nominated for sale in 1980. The bid acceptance test for maintenance tracts, therefore, should closely approximate estimated tract value.

We found that the bids for two Wyoming tracts--South Duck Nest Creek and Little Rawhide Creek--were less than 23 and 32 percent of our revised estimates of market value, respectively, and thus were clearly unacceptable. The bids for three of the four Montana tracts--Colstrip A&B, C, and D--were $25.50 per acre or .07, .12, and .14 cents per ton, respectively, and also unacceptable. Although the bid for the remaining tract--West Decker--was unreasonable, that is, less than fair market value, it probably should have been accepted because it involved a bypass situation.

For the Montana tracts, we believe the bids for the Colstrip tracts were unreasonable because (1) the minimum regulatory prices Interior set for the tracts did not reflect lease value and (2) the revised estimate of the tract value for Colstrip D is 3.4 cents per ton, or 25 times the actual bid. Considering the relative comparability between the tracts and that Interior's economic evaluation team and Office of Policy Analysis suggested minimum regulatory prices of 1 and 2 cents per ton, respectively, we question Interior's determination that

bids of less than .15 cents per ton represent fair market value.

For the Colstrip tracts, the winning bidder was the only company expressing interest in the leases and also the only bidder. In these situations, Interior has custom-fitted a lease to the adjacent company. Such leases are of little value to other companies desiring to open a new mine in the area. In attempting to value these leases, however, Interior does not acknowledge the leases' intrinsic value to the adjacent company but instead tries to calculate the value to "all" companies. Doing so for the three Colstrip tracts resulted in negative values of minus 20.3, 15.8, and 18.3 cents per ton, respectively. In valuing the leases, had Interior taken the position that the leases were of value only to the adjacent company likely to bid on them, its analyses would have yielded dramatically different results. According to the regional economic evaluation team, the making of this assumption would raise the estimated value of the tracts to 1.4, 0.2, and 63.7 cents per ton, respectively.

The remaining Montana tract--West Decker--involved a bypass situation. Though the bid was unreasonable, only 20 percent of the 2 cents per ton minimum value estimated by Interior's Office of Policy Analysis, the problem of how the Government should properly treat emergency bypass leasing situations is still unsolved. In the interim, the Government has few options other than settling for nominal bonus bids.[4]

The bid for the Fortin Draw tract--the only maintenance tract offered at the October sale--was only 20 percent of our revised estimate of market value and clearly unacceptable. Table 5-3 contains an analysis of the bids received for Wyoming and Montana maintenance tracts against our revised estimates of value calculated in appendix IV.

---

[4]Interior's Emergency Coal Leasing Program is the subject of a forthcoming GAO report to be published later this year.

Table 5-3

Reasonableness of Bids Analysis for Powder River Maintenance Tracts

	GAO revised value	Actual bid	Percent of revised value	GAO revised value	Actual bid	Difference
	(cents per ton)			(---------millions--------)		
Wyoming Sector: April 28, 1982						
South Duck Nest Creek	10.8	2.5	23.0	15.4	3.6	11.8
Little Rawhide Creek	25.7	8.2	32.0	23.2	7.4	15.8
Montana Sector: April 28, 1982						
Colstrip A&B (note a)	N/A			N/A	.04	
Colstrip C (note a)	N/A			N/A	.02	
Colstrip D	3.4	.14	4.0	1.4	.1	1.3
West Decker (note b)	N/A			N/A	.02	
Wyoming Sector: October 15, 1982						
Fortin Draw	c/25.5	5.0	20.0	6.8	1.4	5.4

a/The economic evaluation team originally valued the Colstrip A & B and Colstrip C tracts at negative 20.3 and 15.8 cents per ton, respectively. Even after eliminating the team's 17.6 and 15.3 cents per ton adjustments for production rate differences, however, the estimated value of each tract remained negative--minus 2.7 and 0.5 cents per ton, respectively.

b/West Decker was a bypass tract. The economic evaluation team--without analysis--automatically values bypass tracts at the regulatory minimum price--then $25 per acre.

c/Based on GAO's revised estimate of market value for the Little Rawhide Creek tract which Interior selected as the comparable tract for estimating the value of Fortin Draw's value.

Impact of changing demand on maintenance tract value

In determining the reasonableness of bids for maintenance tracts, less consideration should be given to changes in demand for coal production. Instead, the demand for maintenance tracts might appropriately be seen as a function of the more stable or gradually increasing demand-for-reserves element of total coal demand. Because the demand for coal reserves stems from existing--more so than anticipated--coal supply contracts, it is more predictable and includes less speculation than demand for new coal production. Thus, the demand for such reserves is largely uncomplicated by the uncertainties associated with the demand for the new coal production.

As discussed earlier, because the demand for Wyoming coal is expected to increase at a rate of 3.5 to 4.0 percent per year through the end of the decade, coal companies will likely need to add to existing reserves to service current and known future coal supply contracts. It can be argued, therefore, that the demand for coal reserves is increasing annually and may have been greater in 1982 than in 1980. From this argument stems the view that maintenance tracts are not very sensitive to shifts in total coal demand; therefore, it is inappropriate to consider cyclical coal demand fluctuations in valuing maintenance leases.

Interior officials agreed that maintenance leases are--for the most part--free from the cyclical effects of coal demand shifts. Moreover, because none of the Interior officials or industry representatives we contacted could provide contradictory evidence, we believe that the value of Powder River Basin maintenance tracts was unaffected by the recent flattening of growth rates in the demand for coal production. Thus, in our view, the maintenance tracts offered at the April and October sales should not have been devalued as a consequence of changes in the demand for coal.

CHAPTER 6

HOW REASONABLE ARE THE

COMPETITION AND FAIR MARKET VALUE

REQUIREMENTS OF CURRENT LEASING LAW?

Under the Mineral Lands Leasing Act of 1920, as amended by the Federal Coal Leasing Amendments Act of 1976 [30 U.S.C. 201(a)(1)], the Secretary of the Interior must award coal leases by competitive bidding (amended in 1978 to except the leases incident to certain right-of-way permits), but shall accept no bid which he determines is less than fair market value. The principles of competition and fair market value impose specific burdens on Interior and serve as the fundamental guidance for the Federal Coal Management Program. Unfortunately, they were adopted too late in the historical development of Federal coal to be applied rigidly in today's coal market. Legislation modifying the Federal Coal Leasing Amendments Act is needed to bring the leasing program in line with actual coal development patterns.

Under the present statutory framework, Interior's task is difficult at best. The present law assumes all coal lease tracts are competitive. It does not recognize that essentially noncompetitive maintenance-type tracts not only exist but are in many cases desirable. Thus, present law does not allow Interior to value and sell coal leases in a manner consistent with actual coal development patterns. As a result, the manner in which the Government leases coal does not correspond to the way industry is developing the resource. In our view, a legislative remedy is needed.

The Department should be given the authority to negotiate all but new production leases, which should continue to be sold competitively. In broadening Interior's authority, however, the Congress should establish strong controls ensuring adequate public participation and coal industry protection through consistent, fair, and equitable negotiations. The following section summarizes the basic features of the current Federal Coal Management Program. Afterward, issues leading to the need to modify the existing leasing system are discussed and strengths and weaknesses of various programmatic alternatives examined. Controls essential to the protection of public and industry interest are discussed as an integral part of our recommendation regarding the negotiation of maintenance leases.

SUMMARY OF THE FEDERAL COAL MANAGEMENT PROGRAM

The objective of the Federal Coal Management Program is the issuance of coal leases through a two-stage process of land use planning and coal activity planning. (See fig. 6-1.) The first

Figure 6-1

FACTORS INFLUENCING COMPETITIVENESS OF REGIONAL COAL LEASE SALES

FEDERAL LEASING LAWS

FEDERAL COAL MANAGEMENT PROGRAM

- LAND USE PLANNING
  - COAL DEVELOPMENT POTENTIAL
  - UNSUITABILITY CRITERIA
  - MULTIPLE USE TRADEOFFS
  - SURFACE OWNER CONSULTATION
- ACTIVITY PLANNING
  - INDUSTRY EXPRESSION OF INTEREST
  - TRACT DELINEATION, SITE SPECIFIC ANALYSES
  - TRACT RANKING AND SELECTION
  - REGIONAL EIS PUBLISHED

LEASING GENERALLY CONFINED TO AREAS OF ONGOING OPERATIONS — MORE MAINTENANCE TRACTS OFFERED THAN NEW PRODUCTION TRACTS

LESS COMPETITION

LESS ASSURANCE OF FAIR MARKET VALUE

stage, land use planning, is conducted under authority of numerous Federal laws, the principal ones being the Federal Land Policy and Management Act and the Mineral Lands Leasing Act of 1920 as amended by the Federal Coal Leasing Amendments Act of 1976.

Land use planning is a critical element of the process because new leasing can only occur where planning has been completed and where leasing is compatible with the land use plan. Preparation of the land use plan is governed by Interior regulations. These regulations currently provide for resource management plans, the focal point of which are regional planning units. Emphasis is placed on screening out those areas not compatible with coal leasing or coal development. The regulations provide for four "screens" for the purpose of identifying areas acceptable for further consideration of leasing. (It is important to note that the character of potential lease tracts--new production or production maintenance--is not a factor taken into account in identifying areas acceptable for further consideration.) The four screens are:

--Identifying areas having coal development potential through Minerals Management Service and Bureau of Land Management analyses and submission of coal information from companies, States, and the general public.

--Applying 20 unsuitability criteria to screen out additional areas with key features or environmental problems that make them unsuitable for certain types of coal mining and therefore unsuitable for coal leasing.

--Conducting multiple use decisionmaking which may eliminate additional coal deposits as part of trade-offs to protect other resource values not included in the unsuitability criteria.

--Consulting with all qualified surface owners whose lands overlie Federal coal deposits to determine preference for or against surface mining.

In addition, before Interior adopts a comprehensive land use plan, it conducts a series of public participation opportunities, or hearings. It also consults with other Federal surface management agencies and with States and Indian tribes.

The activity planning stage follows preparation of comprehensive land use plans. Coal activity planning consists of identifying, ranking, analyzing, selecting, and scheduling lease tracts within areas covered by an approved land use plan. Activity planning begins with a call to industry for expressions of interest within areas acceptable for further consideration for leasing. Then individual tracts are delineated and site-specific analyses performed. Tract ranking and selection follows, as well as cumulative analysis of the impacts anticipated

from leasing and mining. These activities provide information for the required regional coal environmental impact statement. Lease sales are held following publication of the final impact statement, appropriate consultations and consents, and Departmental decisions on regional lease sale schedules. After the sale, a panel analyzes the bids for individual tracts and recommends whether they should be accepted as fair market value. Surface owner consent agreements are finalized and a Justice Department antitrust review completed.

DISPARITIES BETWEEN COAL LEASING AND DEVELOPMENT

The manner in which the Government leases coal does not correspond to the way industry is developing the resource. Interior's program stems largely from requirements of the Federal Coal Leasing Amendments Act of 1976, which mandates competitive leasing and the receipt of fair market value. The market for Federal coal leases in the Powder River Basin and other western coal regions, however, is largely noncompetitive. Large energy companies are deeply entrenched in these basins, and especially in the Powder River Basin. Based on recent regional sales, they rarely compete--or can be expected to compete--against one another in bidding for a given Federal lease tract.

Since tracts are offered for sale based on expressions of interest, companies need only ask Interior to offer a specific property and the Department usually obliges. Conducting a "competitive lease sale" under these circumstances offers little assurance that the Government will receive a reasonable return for leased coal. Revealing the captive nature of most of the leases offered at the April 1982 Powder River sale, table 6-1 compares expressions of interest against the actual number of bidders. For the eight tracts receiving one bid, the bidder was a company that filed a presale expression of interest in the tract. Six of the eight bidders were the only companies that expressed interest before the sale.

Table 6-1

Tract	Expressions of interest before sale	Number of bidders at sale
Wyoming:		
*South Duck Nest Creek	1	1
Keeline	7	2
*Little Rawhide Creek	1	1
Rocky Butte	3	1
Spring Draw	3	1
Montana:		
Coal Creek	2	2
*Colstrip A&B	1	1
*Colstrip C	1	1
*Colstrip D	1	1
Cook Mountain	1	1
*West Decker	1	2
*North Decker	2	0
*Spring Creek	1	0

*Maintenance tract.

Based upon our observation of recent coal lease sales in the Green River-Hams Fork and Powder River Basin regions, much of the Federal leasing effort is for maintenance leasing. Although Interior has no formal definition, it considers a maintenance tract to be one that is next to an ongoing mining operation, designed to extend production over the long term rather than increase annual production, and intentionally delineated to prevent future bypasses and shutdowns.[1] As a result, effective competition for the coal is precluded. During the coal program's activity planning stage, operators nominate the tracts in response to Interior's call for industry expressions of interest. No other operators would likely have an interest or be able to mine a maintenance tract because the costs to such a new operator would be much greater. For this reason, maintenance tracts are considered captive to the adjacent operation.

The preponderance of captive or maintenance leases, however, cannot be attributed solely to the process for nominating

[1]This concept of maintenance leasing differs from the Emergency Coal Leasing Program definition, which means an amount of coal sufficient to allow the company to maintain current production levels until the next regional coal sale. Under the Emergency coal leasing program, Interior--not the mining operation--draws the tract boundaries.

and designating tracts. These processes are constrained by the other elements of land use and coal activity planning which must balance the interests of many groups against future mining production goals.

For example, because opening a new mining operation has what States generally perceive to be a distinct and potentially unfavorable socioeconomic impact, States may seek to expand existing operations rather than begin new ones. Under Interior's coal program, States and other advocacy groups exert significant influence over the location of future mining operations--thus over coal development patterns. They do so through their voice in the designation of areas in which the Federal Government may lease coal. Thus, in efforts aimed at minimizing coal production impacts, States and advocacy groups--by designating locations where coal is currently being mined--in effect push for Interior to delineate essentially captive tracts for sale instead of creating opportunities for new mining operations. In doing so, these groups help to restrict the various adverse impacts to areas already being influenced by mining operations--and other areas are reserved for other uses. Therefore, to the extent that States or other advocacy groups influence delineation of captive tracts, they create situations which do not foster competition for Federal leases but rather operate against it. As discussed in the section below, cyclical changes in the demand for coal production can also have a bearing on coal development patterns.

COAL DEVELOPMENT PATTERNS REFLECT DEMAND FOR COAL PRODUCTION

The demand for coal production--whether for the new production or reserve component--is another important factor affecting how, when, and where industry develops coal resources--which in turn affects competition for Federal coal leases and the receipt of fair market value. Market value varies substantially with cyclical changes in overall demand, but--more accurately--with changes in the demand for either component of coal production. During periods of substantial growth in the overall demand, the size of the new production component would be larger and market value of new production leases higher than when growth in overall demand is limited. According to industry representatives, during these latter periods, which include the early 1980s, the bulk of demand shifts to the acquisition of additional reserves needed to ensure existing production levels and thereby satisfy existing supply contracts. During such periods, demand for new production tracts falls sharply. However, demand for reserves--maintenance leases--is for the most part unaffected by cyclical changes and will increase annually at predictable rates because the coal is needed to satisfy existing supply contract obligations.

Delineation of tracts to be leased is strongly influenced by the demand for coal production. Based on assessments of the

amount and type of demand, the coal industry nominates specific tracts within coal fields selected by Interior for possible inclusion in forthcoming sales. Since coal companies' future prospects differ, the types of tracts they nominate differ as well. In essence, each company configures its tract nominations to match its demand projections. Under these circumstances, during periods of limited growth in demand, it is easy to see how certain tracts become "captive" to specific companies. In some cases, Interior goes so far as to name maintenance tracts after the adjacent operating mines of nominating companies.

At issue is whether captive tract delineation increases or decreases the market value of the tracts. Interior argues that captive tracts are worth less to the general public. An opposing view is that in these situations the company is a public of one, which has had a lease custom-fitted to its present and future operations; therefore, the value of the tract to that public of one is increased. In our view, when Government creates a situation providing an individual company with such an advantage over its potential competitors, it is entitled to compensation which reflects the value of the special treatment afforded the company. Under the present Federal coal leasing program, it is questionable whether the Government is being adequately compensated.

When the principles of competition and fair market value break down, so do assurances that Government and public interests are being adequately protected. The timing of lease offerings, location and size of leases offered, and the number of tracts offered are all critical factors affecting the size of the market for coal leases and, as such, affect the extent to which the market is open. At the Powder River coal sales, they operated in a manner which--in most instances--effectively closed down the market for most leases to only one company.

Closing down the market to such an extent does not allow the principles of competition and fair market value an opportunity to work as intended. On the other hand, it is difficult to argue that overlooking or discounting the land use or coal activity planning concerns which drive tract delineation is more acceptable than selling coal below fair market value. Also, delineating only new production tracts does not appear a plausible option because it would force operating inefficiencies on the mining industry and ignore changes in the demand for coal production.

The land use and coal activity planning processes are thought to result in the efficient and economical development of Federal coal reserves. Arguably, they pay appropriate attention to States' and public concerns. In our opinion, the processes must operate to incorporate many interests and should not be changed as a consequence of their adverse impact on delineation of competitive coal lease tracts. Instead, a change in the laws governing the manner in which coal is leased appears warranted.

The laws presently guiding the Federal coal leasing program require competition for Federal coal leases in a market which for many leases is noncompetitive and offers the Government little assurance of receiving fair market value. Thus, in attempting to comply with existing statutes, Interior faces two fundamentally undesirable outcomes: either risk selling coal at less than fair market value or risk leasing without adequate attention to land use or coal activity planning concerns.

According to the National Coal Association, in today's western coal market companies can be shown as competing against one another for supply contracts and western coal can be shown as competing against coal from other regions and against other energy fuels. Based on our analysis of the Powder River sales, however, front-end competition between companies for individual leases occurs infrequently. The institutional processes stemming from the land use and coal activity planning systems, coupled with decades of speculation and noncompetitive lease sales, have structured a market characterized by the deep entrenchment of large energy corporations. The major leaseholds in the current coal market have been acquired and there appear to be very few opportunities for new mining operations. In the current "soft" coal market, active competition for future Federal coal leases--maintenance or new production--cannot reasonably be expected.

ANALYSIS OF COAL LEASING OPTIONS

Considering the long-term nature of the western coal market structure, the advantages and disadvantages of various leasing options warrant examination. The following alternatives are analyzed:

--Developing a leasing system featuring alternative bidding procedures.

--Leasing maintenance tracts based on the value-in-use of the coal being offered.

--Negotiating captive leases but selling new production tracts competitively.

These options are generally recognized as having significant revenue-enhancing potential and have been given consideration in Interior policy analyses.

Instituting Alternative Bidding Procedures would Treat the Symptom, Not the Problem

Instituting alternative bidding procedures--royalty bidding, sliding scale, profit sharing, etc.--will not resolve disparities between the manner in which Federal coal is leased and developed. Most systems--like Interior's current one--presume

the existence of competition for Federal leases, but competition for Federal coal leases is limited in today's western coal market. However, two concepts--intertract bidding and descending value auction--have the potential advantage of increasing lease sale revenues. Legislative changes are not necessary for Interior to implement either concept. As discussed below, however, the disadvantages of both seem to outweigh their potential advantages.

The intertract bidding concept involves offering more than the targeted number of leases scheduled to be sold, then choosing the targeted number of leases from those receiving the highest bids on a cents-per-ton basis. The concept is thought to be applicable to both maintenance and new production situations.

The descending scale auction is an oral bidding procedure which initially offers prospective leases at the Government's high estimate of market value. Under this concept, the first bidder to match the Government's offering price is automatically the winning bidder. If no bids are received, the offering price is lowered in 10 percent increments until a bid is received or the lower estimate of value is reached. This system is thought to be usable only for new production situations.

Both systems have a number of disadvantages outweighing the potential revenue-enhancing advantages.

--The systems do not address market structure issues responsible for disparities between the manner in which Federal coal is being leased and developed. Instead, they seek to remedy the absence of competition. In effect, the concepts are aimed at treating the symptom instead of the problem.

--The systems are untested in Federal coal leasing; their potential for success is, therefore, uncertain.

--The systems do not appear applicable to large-scale leasing activities--each being predicated upon the unlikely presence of genuine competition.

--The systems--particularly intertract bidding--would place unnecessarily large information and analysis burdens on industry. Companies would not only have to calculate how high they can afford to bid for a given lease(s), but also how high their competitors could afford to bid for it and other leases. Not surprisingly, the coal industry does not support using the intertract bidding concept.

--The systems do not guarantee bidder participation and the intertract bidding system could result in emergency leasing situations for losing bidders needing additional reserves to maintain existing operations.

Collectively, the disadvantages of developing a new leasing system featuring alternative bidding procedures outweigh the single potential advantage of increased revenue. We believe legislative changes aligning the leasing and development of Federal coal are needed. Following are general discussions of two legislative options involving modification of statutory competition and/or fair market value requirements.

Leasing Based on Coal Value-in-Use Offers Some Improvement

Captive or maintenance tract leasing based on value-in-use analyses would not be competitive, but would probably yield increased revenues. The Federal Coal Leasing Amendments Act requirement of competitive bidding would have to be modified to permit this exception. New production tracts, however, would still be sold competitively.

Under value-in-use leasing, the value of leases captive to adjacent mining operations is determined through comparable sales and/or discounted cash flow analyses of the estimated cost and revenue flows of the adjacent operation. Although the approach is believed to offer revenue enhancing potential, there is no assurance that the company nominating the tract will bid for it. In addition, because this system of leasing results in preferential treatment for the company nominating the tract, Interior's tract delineation decisions would be subject to more intense scrutiny whenever a tract was adjacent to two or more mines.

Though not our preferred option, value-in-use leasing--in our view--would be an improvement over the current system. Negotiating captive leases, we believe, would be an even greater improvement.

Negotiating Captive Leases

Negotiating the sale of captive or maintenance-type lease tracts is, we believe, the best alternative because Interior could require mining companies to disclose mining cost and revenue data during the process. Instead of relying totally on its own estimates--as would be the case with value-in-use leasing--Interior could also have company data for its discounted cash flow analyses. To authorize the Secretary to negotiate a reasonable return for the leased coal, the competitive bidding and fair market value requirements of the Federal Coal Leasing Amendments Act would have to be modified. New production tracts, however, would still be sold competitively and receipt of fair market value required for them.

The principal advantage of negotiating captive or maintenance type leases is the fairness of the negotiating process to all parties concerned. Better mining cost and revenue data, for

example, will resolve many of the uncertainties presently troubling lease valuations and result in better information for leasing decisions. Conversely, authority to negotiate captive leases would appear to broaden further Interior's discretion in determining the reasonableness of prices paid for Federal coal. However, with better lease valuation data, the Department's latitude in these matters may actually decrease.

In amending current leasing law, the Congress should establish strong controls ensuring adequate public participation and coal industry protection through consistent, fair, and equitable negotiations. Following is a discussion of the controls we consider important to a successful program for negotiating captive leases.

STRONG CONTROLS--KEY TO SUCCESSFUL LEASE NEGOTIATION PROGRAM

For the proposed negotiation of captive leases to be palatable, strong controls are needed to ensure adequate opportunities for public participation and to protect industry interest as well. Authorizing negotiation of captive leases, therefore, will place additional regulatory burdens on Interior. Procedures for handling applications for maintenance leases, for example, will have to be developed since future regional lease sales should--with few exceptions--include only new production leases. Once authorized to negotiate captive leases, Interior should publish for public comment proposed lease negotiation procedures. Following is a discussion of the controls we see as being essential to successful lease negotiation program. Table 6-2 outlines where the controls would fit into a hypothetical lease negotiation program.

Table 6-2

Sequential Controls in a
Hypothetical Lease Negotiation Program

1. Application To Negotiate A Proposed Maintenance Lease

2. *Notice Of Intent To Negotiate Published For Public Comment

3. Public Comment Received

4. Decision To Negotiate or Sell Competitively At Regional Sale

5. *Notice of Decision And Evaluation Of Public Comments Published

6. *Negotiation

7. *Notice Of Results Of Negotiation And Lease Sale Terms Published For Public Comment

8. Public Comments Received

9. Decision To Sell Or Not Sell

10. *Notice Of Decision And Evaluation Of Public Comments Published

*Points where disclosure controls would operate in the public and/or industry interest.

The proposed controls operate to (1) ensure public and industry awareness of the Government's lease negotiation process, and (2) provide ample opportunity for affected parties to influence the process. Increasing the amount of information made public, we believe, will provide greater opportunities for informed intervention on behalf of parties which could potentially be affected by the lease. In addition, because the public record will provide consistent documentation of the negotiation process, periodic evaluation of the need for refinements to the process may be simplified. The controls we propose require greater internal documentation as well. However, we believe that company proprietary data must be properly safeguarded.

Upon receiving an application or request to negotiate a lease, under our proposal Interior would publish for public comment a notice of intent to negotiate a proposed maintenance lease. The notice should include the identity of the company involved, geographic and geologic data describing the lease desired, and other pertinent information. Through the notice, potential competitors would be given an opportunity to express interest in competing for the property at the next regional

sale. However, potential competitors would be required to (1) specify whether they are interested in the tract as described in the notice or as part of a larger new production tract and (2) present evidence substantiating their ability to efficiently mine the tract under the circumstances specified. The evidence requirement is intended to discourage insincere expressions of interest. After analyzing the comments, Interior should publish its decision whether or not to sell as specified in the proposed terms, the basis for any changes, and its evaluation of public comments.

In negotiating the lease, Interior should seek to obtain sufficient competent evidence documenting the lease sale terms. Detailed proprietary records of the negotiations, evidence presented by Government and industry, and its disposition should be kept. Once negotiated, Interior should publish the proposed lease terms for public comment on their reasonableness. After analyzing the comments, Interior should publish its decision whether or not to sell as specified in the proposed terms, the basis for any changes, and its evaluation of public comments.

The controls discussed above place substantial public disclosure requirements on Interior. We feel they are necessary, however, because the administrative burdens attending each control add measures of integrity to the proposed negotiation of maintenance leases. Moreover, because giving Interior the authority to negotiate maintenance leases could be seen as substantially expanding the Department's discretion over development of coal resources, strong controls are needed throughout the negotiation process to help ensure the balance of public, industry, and Government interests. Despite these measures, however, in our opinion administering a lease negotiation program overall should prove less costly and time consuming than conducting the current competitive lease sale program.

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

On April 28, 1982, the Department of the Interior held the single largest coal sale in America's history. Though record receipts were realized, the sale was mired in controversy. Questions persist over the possibility of industry pressuring Interior to lower the coal selling prices. Interior's experimental entry level bidding system, introduced less than 2 months prior to the sale, reduced substantially the lease selling prices--including those for leases for which only one bidder could logically be expected. The system had not been previously tested in Federal coal leasing and its use was unsupported by economic analysis. Our analysis of sale results showed the system did not increase competition and revenues as envisioned.

Interior's criticisms of its regional office's original estimates of lease values, or minimum acceptable bids (MABs), for the sale--which was the basis for going to the new system--were not supported by economic analysis. None of Interior's reasons for discarding the original MABs as being too high could be sustained. Instead, we found the methodology used by the evaluation team to be generally reasonable and the resulting MABs to be conservative estimates of value. In fact, once revised to eliminate certain inappropriate adjustments and other improper reductions, the MABs proved to be significantly low. In the absence of competition at the sale and in light of weaknesses we found in the postsale fair market value determination procedures used by Interior, we believe the original MABs--with revisions as noted in this report--could and should have been used as the basis for gauging the reasonableness of the bids. Because this was not done, we estimate that Powder River coal leases sold at roughly $100 million less than fair market value.

We believe much of Interior's trouble stems more from the leasing dilemma it faces than from its administrative practices. Under the Federal Coal Leasing Amendments Act, Interior is charged with a very difficult task: selling coal competitively in a market which--as a consequence of decades of noncompetitive leasing, speculation, and current land use and coal activity planning processes--is in many cases noncompetitive. Thus, certain fundamental disparities between the manner in which coal is being leased and developed must be rectified before Interior's task becomes one that is practicable.

Based on our evaluation, most leases sold in recent years at Federal regional coal sales appear captive to adjacent mining operations. In some cases, Interior even names the proposed lease tracts after the nearby mines. Interior recognizes that competition cannot be expected for these leases and in some cases even reduces its estimate of lease values because it believes captive tracts are not as valuable as those for which competition can be expected. In our view, continuing to offer captive leases under

the mantle of "competitive" leasing only creates the pretense of competition and provides little assurance that the Government will receive a reasonable return for leased coal. Legislative changes are necessary.

We believe the Mineral Lands Leasing Act of 1920, as amended by the Federal Coal Leasing Amendments Act of 1976, should be modified to allow the Department of the Interior to negotiate a reasonable return for captive or maintenance-type leases. A coal leasing program featuring negotiation of captive or maintenance-type tracts and competitive sales of new production-type tracts would help resolve the basic differences between the ways in which the resource is currently being leased and developed. However, strong controls requiring public disclosure of information throughout the lease negotiation process also are needed to safeguard against potential abuses of discretion and protect the interests of the public and industry as well.

RECOMMENDATIONS TO THE CONGRESS

We recommend that the Congress amend the Mineral Lands Leasing Act of 1920, as amended, to (1) authorize the Department of the Interior to negotiate captive or maintenance-type leases, and (2) require Interior to publish for public comment information derived at sequential phases in the lease negotiation process. To ensure public and industry awareness of the lease negotiation process, and to provide ample opportunity for affected parties to influence the process, the Interior should be required to publish its (1) intent to negotiate a proposed maintenance lease, (2) decision to negotiate the lease as proposed and its evaluation of public comments, (3) intent to sell the lease and the proposed sale terms, and (4) decision to sell the lease as proposed, or under modified terms, and its evaluation of public comments.

To facilitate future evaluations of the negotiation process, we recommend that the Congress amend the Mineral Lands Leasing Act of 1920 to require that detailed records be kept of the negotiations, including evidence presented by Government and industry representatives, and of its disposition.

RECOMMENDATIONS TO THE SECRETARY OF THE INTERIOR

Under the Federal Coal Leasing Amendments Act of 1976, which amended the Mineral Lands Leasing Act of 1920 (30 U.S.C. 201 (a) (1)), no bid which is less than the fair market value of the coal shall be accepted by the Secretary of the Interior. As we have previously indicated, however, bids in amounts substantially below fair market value were accepted and leases issued. The issue of whether Interior obtained fair market value for Powder River coal leases ultimately may be resolved in the courts. The U.S. District Court for the District of Montana currently has the Powder River coal fair market value question before it. During

the interim, however, the Secretary may wish to reconsider the reasonableness of the Department's methods and determinations--in light of our findings. If the Secretary determines that the evidence does not support a determination of fair market value, he should cancel the leases. This action would be consistent with the view of the United States Supreme Court that in a proper case the Secretary has the power to correct his own errors, by lease cancellation (Boesche v. Udall, 373 U.S. 472 (1963)).

We recommend that the Secretary of the Interior postpone scheduled regional coal lease sales until Interior has had an opportunity to correct deficiencies in its valuation, leasing, and fair market value determination procedures. This would help to ensure that (1) fair market value is received in exchange for competitively sold new-production type coal leases, and--if authorized by the Congress--that a reasonable return is received in exchange for negotiated sales of maintenance-type coal leases, and (2) Interior is able to act as a knowledgeable seller at both competitive and--if authorized--negotiated lease sales. Specifically, we recommend that the Secretary not resume coal leasing until Interior has developed

--a detailed analysis of the economic and geologic variables affecting the value of a Federal coal lease, including how changes in one variable affect others;

--new internal procedures for conducting coal lease valuations, including criteria for comparable sales analyses--refining the technique used to develop original minimum acceptable bids for the April 1982 Powder River sale,

--new guidelines for using untried or experimental bidding systems--such as entry level and intertract bidding--at regional coal lease sales, including limits on the percentage of the leasing target permitted under such experimentation;

--minimum regulatory selling prices for coal leases in each Federal coal region on a cents per ton basis; and

--revised fair market value determination procedures that include specific quantitative tests (1) applicable whether or not adequate bidding competition is present and (2) placing greater reliance on prior comparable sales and recent arm's length sales in the absence of bidding competition at the actual sale.

We also recommend that the Secretary direct the Bureau of Land Management to establish Bureau-wide, written internal procedures for safeguarding coal lease pricing, economic valuation, and other proprietary data.

NINETY-SEVENTH CONGRESS

MORRIS K. UDALL, ARIZ., CHAIRMAN

PHILLIP BURTON, CALIF.
ROBERT W. KASTENMEIER, WIS.
ABRAHAM KAZEN, JR., TEX.
JONATHAN B. BINGHAM, N.Y.
JOHN F. SEIBERLING, OHIO
ANTONIO BORJA WON PAT, GUAM
JIM SANTINI, NEV.
JAMES WEAVER, OREG.
GEORGE MILLER, CALIF.
JAMES J. FLORIO, N.J.
PHILIP R. SHARP, IND.
EDWARD J. MARKEY, MASS.
BALTASAR CORRADA, P.R.
AUSTIN J. MURPHY, PA.
NICK JOE RAHALL II, W. VA.
BRUCE F. VENTO, MINN.
JERRY HUCKABY, LA.
JERRY M. PATTERSON, CALIF.
RAY KOGOVSEK, COLO.
PAT WILLIAMS, MONT.
DALE E. KILDEE, MICH.
TONY COELHO, CALIF.
BEVERLY B. BYRON, MD.
RON DE LUGO, V.I.
SAMUEL GEJDENSON, CONN.
MANUEL LUJAN, JR., N. MEX.
DON H. CLAUSEN, CALIF.
DON YOUNG, ALASKA
ROBERT J. LAGOMARSINO, CALIF.
DAN MARRIOTT, UTAH
RON MARLENEE, MONT.
RICHARD B. CHENEY, WYO.
CHARLES PASHAYAN, JR., CALIF.
DOUGLAS K. BEREUTER, NEBR.
DAVID O'B. MARTIN, N.Y.
LARRY CRAIG, IDAHO
WILLIAM M. HENDON, N.C.
HANK BROWN, COLO.
DAVID MICHAEL STATON, W. VA.
DENNY SMITH, OREG.
JAMES V. HANSEN, UTAH

COMMITTEE ON INTERIOR AND INSULAR AFFAIRS
U.S. HOUSE OF REPRESENTATIVES
WASHINGTON, D.C. 20515

APPENDIX I

CHARLES CONKLIN
STAFF DIRECTOR

STANLEY SCOVILLE
ASSOCIATE STAFF DIRECTOR AND COUNSEL

LEE MC ELVAIN
GENERAL COUNSEL

TIMOTHY W. GLIDDEN
REPUBLICAN COUNSEL

May 10, 1982

Mr. Charles Bowsher
Comptroller General
U.S. General Accounting Office
441 G Street, N.W.
Washington, D.C. 20548

Dear Mr. Bowsher:

A recent report in Inside Energy indicated that prime tracts in the Powder River Basin coal-lease sale were devalued before the sale. According to the article, the Department of the Interior threw out the minimal acceptable bids after the unpublished figures were leaked to coal industry officials. On April 1, 1982, an "experimental" entry-level bidding system was introduced using totals, if the report is accurate, some forty million dollars less than the original minimum acceptable bids.

I would like you to investigate this matter to see if any laws or standards of conduct were violated. I also want to see the supporting documents the Department of the Interior used when it issued its decision to change bidding systems just before the largest lease-sale in history. There were no public comments on the decision. In addition, I want to know if, in the opinion of GAO, the public will receive fair market value for its coal in the Powder River Basin, as is required by the Federal Coal Leasing Amendments of 1976.

Because of the nature of the violations which may have occurred, I request that GAO launch an immediate investigation. For further information on this request, please contact Edward Abrahams on my Subcommittee staff at 225-2196.

Sincerely,

EDWARD J. MARKEY
Chairman
Subcommittee on Oversight
and Investigations

United States Senate

MAX BAUCUS
Montana

June 23, 1982

Washington, D.C. 20510
(202) 224-2651

Montana Toll Free No.
(1) 800-332-6106

Honorable Charles A. Bowsher
Comptroller General of the United States
441 G Street, NW
Washington, DC 20548

Dear Mr. Bowsher:

I write with further reference to my May 4, 1982 request for GAO assistance with regard to the Minerals Management Service and the Federal Energy Regulatory Commission.

First, I appreciate your work to date in the briefing given to my staff by GAO personnel earlier this month. In accordance with the informal discussions at that meeting, I would like to amend and expand my request as follows:

First, I would appreciate your completing as quickly as possible the investigation into the particular alleged improper activities concerning the tight sands gas formation applications in Montana. The Montana Public Service Commission has requested the Federal Energy Regulatory Commission not to make final determination concerning these applications until your review of improprieties is completed. Therefore, please sever this part of my May 4 request from the more general parts of my request as necessary to complete this investigation as speedily as possible.

Committees
Environment and Public Works
Finance
Judiciary
Small Business

Second, it is my understanding that Congressman Markey, as Chairman of the Oversight and Investigations Subcommittee of the House Interior and Insular Affairs Committee, has instigated a GAO inquiry into Minerals Management Service activities relating to recent Western coal leases. This investigation would appear to be relevant to the questions I asked in my May 4 letter concerning procedures for handling MMS proceedings. Accordingly, in order to avoid duplication, I would like to join with Congressman Markey as a co-requestor of this investigation and ask that the concerns addressed in my May 4 letter be addressed in this report.

Finally, from the helpful, informal briefing given by your staff earlier this month, I have become concerned that the Federal Energy Regulatory Commission may be either exceeding its authority or not carefully implementing its authority concerning the designation of tight sands gas formations. Therefore, I would appreciate your separately answering the following questions:

1. Has the Federal Energy Regulatory Commission developed adequate criteria on which to judge individual tight gas formation applications?

GAO note: The May 4, 1982, request letter pertains to a separate matter, and is not reproduced here. The Senator's specific Powder River Sale request appears in paragraph four above.

Billings
657-6790
Bozeman
586-6104
Butte
782-8700
Great Falls
761-1574
Helena
449-5480
Missoula
728-2043

Page Two

HONORABLE CHARLES A. BOWSHER
June 23, 1982

2. Is the apparent "fast track" approach being taken by FERC adequate to make sure that these designations are accurate and that no designations are being made without sufficient basis to establish the need for higher prices to promote gas development?

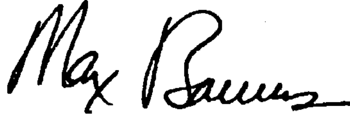
3. Does the price set by FERC for gas coming from these areas reflect the Congressional intent behind FERC's authority? Is the price being set adequate to produce production from these areas but no higher than necessary?

4. Are the Federal Register and other public notice processes of FERC adequate to give all interested parties a fair and reasonable chance to affect decisions? I am particularly concerned that "fast track" notice policy may have led to little or no notice being given on many FERC regulatory actions, and I would like to see GAO's assessment of the FERC public notice process.

Thank you for your further assistance.

With best personal regards, I am

Sincerely,



cc: Honorable Edward J. Markey

<u>Analysis of Actual Selling Price Versus</u>
<u>$0.01 and $0.02 Per Ton Selling Price For</u>
<u>Powder River Tracts Offered at $25 Per Acre</u>

Tracts	Actual selling price	Selling price at $0.01/ton	Factor of actual selling price	Selling price at $0.02/ton	Factor of actual selling price
Wyoming					
Keeline (note a)	$1,619,000	$1,700,000	1	$3,400,000	2
Kintz Creek (note b)	80,000	1,930,000	24	3,860,000	48
Timber Creek (note b)	91,725	1,640,000	18	3,280,000	36
Montana					
Coal Creek (note c)	25,825	600,000	23	1,200,000	46
Colstrip A&B	40,825	585,000	14	1,170,000	28
Colstrip C	22,325	189,000	8	378,000	16
Colstrip D	56,250	415,000	7	830,000	14
West Decker (note d)	1,000	50,000	0	100,000	100
Totals	$1,936,950	$7,109,000	3.7	$14,218,000	7.3

a/With two bidders, Keeline sold at $500 per acre, 20 times the $25 per acre offering price.

b/No bids received; value equals price at $25 per tract acre.

c/With two bidders, Coal Creek sold at $340 per acre, over 13 times the $25 per acre offering price.

d/With two bidders, West Decker sold at $500 per acre, 20 times the $25 per acre offering price.

APPENDIX III

REVISIONS TO THE REGIONAL ECONOMIC EVALUATION TEAM'S COMPARABLE SALES ANALYSES

The regional team's basic methods were sound; however, as noted in chapters 4 and 5 of the report, some improvements are needed. The process for making the needed revisions requires that questionable adjustments be eliminated in the order in which they were originally made in the regional coal team's analysis. Unless needed revisions are made in the proper sequence, they will not accurately reflect each questionable adjustment's impact on tract value. For this reason, adding together the values included in tables 4-1, 4-2, and 4-3, for example, will not accurately reflect the amount by which leases sold in April were undervalued. Our methods for revising the team's estimates of value for lease tracts sold at the April and October sales--confirmed with the regional team--are discussed individually below. Afterward come our detailed calculations.

REVISING THE VALUES OF THE APRIL LEASES

For the April sale, the revisions include

--eliminating the speculative production rate adjustment,

--making the small business tax effect adjustment only for the Coal Creek small business set aside tract, and

--omitting tract value reductions made as a consequence to Interior's previous policy of cutting the value of some small tracts in half.

In its comparable sales analysis, the evaluation team made a series of adjustments for physical and geologic lease characteristics. Included among them were adjustments for factors such as Btu content (heat value), reclamation and surface purchase cost, stripping ratio, and production rate. Beginning with the cents per ton value of the comparable tract--Dry Fork--the team made adjustments for each of the factors and arrived at a subtotal. Based on this subtotal, a small business tax effect adjustment was calculated--resulting in a second subtotal. Based on this subtotal, a bonus payment plan adjustment was made to recognize that bids for the leases being offered would be paid in five equal payments 1 year apart rather than in a lump sum payment as was the case for the comparable tract. The value of some small tracts was then split in half in deference to a previous Interior valuation policy.

Revising the team's methods to eliminate the effects of the questionable features we identified involves only a few simple calculations. First, the production rate adjustment is subtracted from the team's initial subtotal. Next, a small business tax effect adjustment is recalculated for the Coal Creek set aside tract based on its new subtotal, but not for the other tracts for which small business participation was neither anticipated nor observed. Last, the bonus payment plan adjustment is recalculated based on the new subtotal. No calculation is needed to eliminate the effect of the questionable policy--the reductions are simply omitted from our analysis.

In the schedule for revising the estimated value of the leases offered in April, we compare our revised values against the (1) minimum acceptable bids calculated by the regional evaluation team, (2) entry level bids developed by Interior, and (3) actual bids at the sale. Based on our analysis against these three sets of bids, the leases receiving bids at the April sale were undervalued by $95.1 million, underpriced by $112.9 million, and sold for $80.7 million less than what we estimated they were worth. (The $110.6 million shown in the analysis includes $29.9 million for the Rocky Butte bid rejected by Interior. Subtracting this amount from the $110.6 million results in the $80.7 million.)

REVISING THE VALUES OF THE OCTOBER SALE LEASES

For the October sale at which only two tracts--Rocky Butte and Fortin Draw--were offered, the revisions include

--using our revised values instead of actual bids received for April sale tracts as the starting point (comparable tract value) for the analysis,

--eliminating the production rate adjustment from the analysis of the Rocky Butte tract, and

--omitting the small business tax effect adjustment from each tract's analysis.

The evaluation team's analysis of the October sale leases was basically the same as that for the April leases, except that tracts sold at the April sale were used by Interior as the comparable tracts to those being offered in October. Similarly, revising the estimates of value for the October leases involves calculations which are mathematically simple to perform.

First, because the selling prices of the April leases do not--in our opinion--represent fair market value, they are not

suitable comparable tract values and should not have been included in Interior's analysis. Substituting our revised estimates of value for their actual selling prices solves the problem. As in the April sale, the effects of the production rate adjustment are eliminated by a simple subtraction. Since neither Rocky Butte nor Fortin Draw tract is of known interest to small businesses, the small business tax effect adjustment is not appropriate, so we omitted it from the team's analyses. Last, since the April and October leases sold under the same payment arrangements--five equal payments 1 year apart--a bonus payment plan adjustment was not necessary.

Calculation of GAO's Revised Estimates of Value
for Powder River Basin Coal Leases Offered for Sale
on April 28, 1982

							Comparison of GAO's revised estimates against								
							Minimum acceptable bids			Entry level bids			Actual bids		
	Economic Evaluation Team estimates a/	Production rate adjustment eliminated	Subtotal	Bonus payment plan adjustment added b/	GAO revised estimate of tract value		Bid	Difference		Bid	Difference		Bid	Difference	
Tracts by State	(Cents/ton)	(Cents/ton)	(Cents/ton)	(Cents/ton)	(Cents/ton)	($Millions)	(Cents/ton)	(Cents/ton)	($Millions)	(Cents/ton)	(Cents/ton)	($Millions)	(Cents/ton)	(Cents/ton)	($Millions)
Wyoming															
South Duck Nest Creek	+ 6.9	+ 2.1	+ 9.0	+ 1.8	+10.8	15.4	2.5	+ 8.3	+11.8	2.5	+ 8.3	+11.8	2.5	+ 8.3	+11.8
Keeline	- 2.7	+13.2	+10.5	+ 2.2	+12.6	21.5	0.05	+12.6	+21.4	0.05	+12.6	+21.4	0.95	+11.7	+ 9.9
Little Rawhide Creek	+24.1	- 2.7	+21.4	+ 4.4	+25.8	23.2	13.4	+12.4	+11.1	8.0	+17.8	+16.0	8.2	+17.5	+15.8
Rocky Butte	+ 7.5	+ 0.1	+ 7.6	+ 1.6	+ 9.2	41.0	6.0	+ 3.2	+14.2	2.5	+ 6.7	+30.0	2.5	+ 6.7	+29.9
Spring Draw	+ 9.5 c/	+ 4.4	+13.9	+ 2.8	+16.7	54.0	8.5	+ 8.2	+26.6	8.0	+ 8.7	+28.2	8.0	+ 8.7	+28.2
					Subtotals:	$155.2			85.2			107.4			105.5
Montana															
Coal Creek	- 1.2	+15.3	+12.0 d/	+ 2.4	+14.4	8.6	0.04	+14.4	+ 8.6	0.04	+14.4	+ 8.6	0.6	+13.8	+ 8.3
Colstrip A & B	-20.3	+17.6	- 2.7 e/	N/A	N/A	N/A	0.07	- 0.07	- 0.04	0.07	- 0.07	- 0.04	0.07	- 0.07	- 0.04
Colstrip C	-15.8	+15.3	- .5 e/	N/A	N/A	N/A	0.12	- 0.12	- 0.02	0.12	- 0.12	- 0.02	0.12	- 0.12	- 0.02
Colstrip D	-18.3	+21.1	+ 2.8	+ 0.6	+ 3.4	1.4	0.14	+ 3.2	+ 1.3	1.4	+ 3.2	+ 1.3	0.14	+ 3.2	+ 1.3
Cook Mountain	- 7.3	+ 2.5	- 4.8 e/	N/A	N/A	N/A	0.03	- 0.03	- 0.05	2.5	- 2.5	- 4.5	2.5	- 2.5	- 4.5
West Decker	Bypass f/	N/A	N/A	N/A	N/A	N/A	0.02	- 0.02	- 0.001	0.02	- 0.02	- 0.001	0.4	- 0.4	- 0.02
					Subtotals:	10.0			9.9			5.5			5.0
						165.3			$95.1			$112.9			g/$110.6

a/From reports dated March 10 and 26, 1982, estimates reflect tract value after adjusting for differences in physical (geologic) tract characteristics.

b/Adjusts for difference in time value of money between a single payment and five annual payments of bonus bids.

c/Corrected value after eliminating resource data errors--provided by Casper Economic Evaluation Team.

d/Subtotal of 14.1 reduced by 2.1 to consider tax effect on small businesses--data provided by Casper Economic Evaluation Team.

e/Tract values remained negative, even after elimnating production rate adjustments. A zero tract value was amended.

f/West Decker was a bypass tract. Both its Minimum Acceptable Bid and Entry Level Bid were set at the regulatory minimum--then $25 acre.

g/Difference for Apr./Oct. combined is $100.5 million, derived by subtracting Apr. Rocky Butte bid difference ($29.9 million) from $110.6 million, and then adding $14.4 million and $5.4 million differences for two tracts sold in Oct. (See p. 88).

Calculation of GAO's Revised Estimates of Value for Powder River Basin Coal Leases Offered for Sale on October 15, 1982

Wyoming tracts	April Sale Comparable Tract(s) a/	GAO estimated value of April tracts (¢ per ton)	Appropriate adjustments b/ (¢ per ton)	GAO revised estimate of tract value (¢ per ton)	Average of Keeline and Spring Draw (¢ per ton)	Regional Team's estimate of tract value (¢ per ton)	Difference (¢ per ton)	Difference ($ millions)	Actual bids (¢ per ton)	Difference (¢ per ton)	Difference ($ millions)
	Keeline	12.65	4.85	7.8							
					[illegible]	4.04	4.21	$18.7	5.02	3.23	c/$14.4
	Spring Draw	16.74	8.03	8.7							
Fortin Draw	Little Rawhide Creek	25.77		25.6		4.76	20.8	$5.5	5.08	20.47	c/$5.4

a/Comparable tracts chosen by Interior

b/Includes adjustments for Btu content (heat value), Reclamation and Surface purchase costs, and stripping ratios.

c/See footnote g, p. 87.

PUBLIC AND INTERNAL COMMENTS ON NEW MINERALS MANAGEMENT SERVICE COAL LEASE SALE PROCEDURES

To implement sections 3422.1-.4 of the new Federal Coal Management Program regulations of July 30, 1982, the Minerals Management Service established new coal lease sale and fair market value determination procedures. On September 13, 1982, the Service published these procedures in the Federal Register and requested public comment on them. Sixteen responses were received, 12 from 11 energy companies, 2 from industry associations, and 2 from public interest groups. The Service also received 10 internal responses from offices or individuals.

PUBLIC COMMENTS

Respondents generally criticized both (1) vague, unclear terminology and methodology in the procedures, and (2) the overall leasing approach embodied in the procedures and the new coal regulations. Nine of 11 coal or energy companies generally disliked the procedures, for different reasons. Only one company did not criticize the procedures (Shell). Two industry associations submitted comments recommending major changes in the procedures and the coal regulations. Neither responding public interest group believed that the postsale bid evaluation procedures would assure receipt of fair market value.

Energy company comments were wide ranging. Four companies considered the procedures to be unwise interference in the marketplace (Gulf, Western Energy, Getty, Consol). Four had concerns about changed regulations relating to $100 per acre bid minimums and sealed-only bidding (North Americal Coal Co., Gulf, Western Energy, Colowyo). Three found details of the procedures confusing and unclear. Gulf pointed to "too many undefined terms" with "no boundaries"; Tenneco found presale procedures for establishing a minimum bid "unclear, confusing, and * * * not detailed enough or related in any way to the marketplace"; Meridian Coal found it "unclear now MMS's methodology for arriving at a minimum bid which would be a 'best estimate of the representative market value' will differ from the methodology for the postsale comparability analysis," and also found it unclear now the Service would decide on postsale bid acceptance or rejection. Five companies suggested that the Service return to published presale minimum acceptable bids (Gulf, Tenneco, Sunbelt Wing, Consol, and Coastal States Energy). Four of them believed the procedures as written did not adequately distinguish between captive and competitive tracts or recognize that many Federal tracts offered would logically attract only one bidder (Tenneco, Sunbelt, Meridian, Coastal States).

Comments from the two responding industry associations were very similar. Both praised the Service's efforts to provide procedures, but they objected to sealed bidding as being more like a

lottery than a competitive sale and criticized the $100 per acre regulatory minimum as being too restrictive. Both generally favored postsale fair market value determination, but one felt that "special circumstances" should be included in both presale and postsale analysis. Both found that the procedures needed clarification at many points.

Both responding public interest groups found the procedures untenable. One found a return to oral bidding and minimum acceptable bids as a more certain way of assuring that fair market value is received; the other charged that (1) the Department of the Interior promulgated the procedures without complying with statutory obligations and that (2) the procedures did not guarantee independent resource evaluation, thereby raising doubts about the seller's knowledgeability.

INTERNAL SERVICE COMMENTS

Service-employed respondents were those expected to be using the procedures in the future. Ten comment letters from nine different offices were submitted. One respondent found the procedures "well conceived." Two others generally supported the new approach, with minor clarifications. Another had no comments, and two others wrote brief and noncomittal letters. The remaining four respondents raised serious criticisms related to unclear terminology and methodology. The North Central Regional Office recommended building potential dollar loss from bid rejection into element 2 of postsale competition analysis instead of including it under "special circumstances," which are difficult to quantify. The South Central Regional Office was highly critical--it found the differences between minimum bids and minimum acceptable bids (representing fair market value) to be unclear; it found methodology unclear for calculating bids other than $100 per acre; and it found most of the postsale evaluation section "incomprehensible." The Eastern Regional Office's Acting Chief, Economic Evaluation Section, criticized the elimination of oral bidding, which had a good "track record"; he added that minimum bids could be confused with minimum acceptable bids; and that "special circumstances" could be abused; he further stated that the new procedures appeared to emphasize an "obligation to sell" rather than a knowledgeable buyer's "willingness, but no obligations to sell."

STATUS OF LAWSUITS RELATED TO THE POWDER RIVER SALE

Two separate actions were instituted against the Department of the Interior in the United States District Court for the District of Columbia. The first case was filed by the Northern Cheyenne tribe on April 21, 1982 (Civil Action No. 82-1094). It charged that the Powder River sale would violate various Federal laws including the National Environmental Policy Act and the Mineral Lands Leasing Act, as amended. The main issue was the alleged failure by Interior to consider the impacts of the sale on the Tribe. The action sought to prevent the sale or, if it were held, to have the leases issued pursuant to the sale held to create no rights to mine the coal. A motion for a temporary restraining order to prevent the sale was denied.

The principal plaintiff in the second case is the National Wildlife Federation (Civil Action No. 82-1166, filed April 27, 1982). Additional plaintiffs are the Northern Plains Resource Council, the Montana Wildlife Federation, and the Powder River Basin Resource Council. The suit sought to enjoin the Powder River sale as well as declare that various provisions of Federal law were violated incident to the sale. It is alleged that the high bids made for the Little Rawhide, Spring Draw, Rocky Butte, Duck Nest Creek, Colstrip A and B, Colstrip C, Colstrip D, and Cook Mountain tracts in the Powder River Coal Basin did not constitute fair market value. Therefore, acceptance of the bids by the Secretary of the Interior would violate the Mineral Lands Leasing Act as amended by the Federal Coal Leasing Amendments Act of 1976. At their request, the Shell Oil Company, the State of Wyoming, and Meadowlark Farms, Inc., were added as defendants in the National Wildlife case.

By court order of June 7, 1982, the cases, which had previously been consolidated for trial, were transferred to the United States District Court for the District of Montana. (The _Northern Cheyenne Tribe v. James G. Watt, Secretary of the Interior, et al._, Civil No. 82-116-BLG, and _National Wildlife Federation, et al._, v. _Robert Burford, et al._, Civil No. 82-117-BLG.)

Plaintiffs in both cases have moved for summary judgment which would result in judgments in their favor--without the necessity for trial. The defendants, in turn, have also moved for summary judgments which, if granted, would cause the dismissal of the actions prior to trial. The Court has reserved decision on the motions.

GLOSSARY

Term	Definition
Adjustments to comparable sales	Additions to or subtractions from the value of a previously sold "comparable" lease, in order to account for differences between the sold lease and the one being offered
Assignment market	A coal market in which various coal holdings are bought and sold by private companies
Bidding system	A set of procedures by which competitive bidding is conducted
Bituminous coal	An intermediate-rank coal with low to high fixed carbon, intermediate to high heat content, a high percentage of volatile matter, and a low percentage of moisture
Bonus bid	The cash amount, beyond royalties or rentals, offered by a bidder as consideration for receiving a lease
Boxcut	The first excavation at a surface coal mine
British thermal unit (Btu)	The amount of energy necessary to raise the temperature of one pound of water by one degree
Bypass tract	A tract next to an ongoing operation which can be economically mined around if no lease is awarded
Captive tract	A maintenance, bypass, or other tract for which not more than one coal company could reasonably be expected to compete
Cash bonus bid, fixed royalty bidding system	A set of bidding procedures under which a lessee pays the Federal lessor a cash bonus bid at the time of the sale, and generally a royalty of 12 1/2 percent and 8 percent for surface and underground mining, respectively, during the productive life of the lease

Term	Definition
Coal activity planning	Specific planning for an upcoming regional coal lease sale, including tract selection, publication of a regional environmental impact statement, and final sale scheduling
Comparable sales analysis	A method of valuing coal tracts by comparing them to the price and physical and other characteristics of a previously sold tract
Competitive coal leasing	A leasing system involving land use planning, environmental impact statements, and competitive bidding procedures, to ensure that Federal coal is leased at its fair market value and developed in coordination with State, local, and private interests
Demand for production/ reserves	Demand for produced coal, versus demand for lease holdings to service existing production contracts
Discounted cash flow analysis	Use of an econometric model to calculate reserve estimates, product prices, and production costs over the life of a mine, with annual cash flows discounted to present value
Emergency leasing	Within the competitive leasing system, an application process through which Interior may consider holding a lease sale apart from the competitive leasing process when a mining operation adjacent to unleased coal deposits demonstrates an emergency need for them
Entry level bidding system	An experimental procedure involving both sealed and oral bidding under which "floor" bids are set well below the presale estimates of tracts' value, in expectation that bidding competition at the sale itself will establish the tracts' true value
Environmental impact statement	An assessment of environmental impacts related to various levels of coal development in a given coal region, as part of the competitive leasing system

Expression of interest	Under the competitive leasing system, a written reply to a formal call for industry expressions of interest in leasing coal within an area defined by the land use planning process
Extracted price	The price of coal at the mine mouth
Fair market value	The probable sale price of a coal lease, assuming that both buyer and seller are knowledgeable and willing participants in the transaction
Fair market value determination	The process by which Interior estimates the value of a coal lease and/or assesses whether a given high bid offered for the lease is adequate
Fee coal	Privately owned coal
Floor bid	A minimum price set by the seller, at or above which the bidding for a lease may begin
In-place value	The inherent value of the coal in the ground
Intertract bidding	A procedure under which more leases are offered than sold--and those sold go to the highest bidder
Land use planning	Within the competitive leasing system, the process of identifying areas of high development potential and suitability, prior to coal activity planning
Lease	A Federal coal lease issued under the provisions of the minerals leasing laws, granting exclusive extraction rights
Lease valuation	The process of calculating the value of a coal lease
Lessor/Lessee	The seller/buyer of a lease
Logical mining unit	The amount of land needed for efficient, economical, and orderly mining production

Term	Definition
Long-term contract price	The long-term price negotiated between a coal producer and consumer, often a utility
Minimum acceptable bid (MAB)	A presale estimate of a coal tract's value, representing both the "floor" at or above which bidding may begin and Interior's official estimate of fair market value
Minimum acceptable bidding system	A sealed and oral bidding procedure under which lease valuations representing fair market value are calculated before a sale, and used both as "floor" bids and as standards for judging whether actual bids at the sale are adequate
Minimum bidding system	A single sealed bidding procedure under which (1) leases are offered at either the regulatory minimum of $100 per acre (new production tracts) or at Interior's best estimate of fair market value (maintenance tracts) and (2) bidders are expected to offer their one best bid for a tract.
Minimum regulatory bid	A floor bid established by regulation
Negative tract value	A hypothetical minus value resulting from computations involving the discounted cash flow econometric model
Negotiated leasing	A process whereby production maintenance leases would be offered to a coal company by means of negotiation between the company and the Department of the Interior
New production tract	A competitive coal tract that can be economically mined by itself
Oral bidding	Under coal program bidding procedures, an oral auction following sealed bidding
Postsale fair market value determination	Determination of value after a sale, based in part on sale results

Presale estimate of value	A calculation of the fair market value of a lease before it is offered for sale
Production maintenance tract	A coal tract designated to be a logical extension of the operations of an adjacent mine, suitable for maintaining its present production
Proprietary coal data	Sensitive data related to the amount, quality, or fair market value of coal resources, not intended for public disclosure
Rental	A fixed annual fee paid to the Government for the right to a lease
Reserves (coal)	Portion of coal resources in the ground that can be economically extracted at current prices (costs) using current technology
Royalty	Proceeds paid to the Government by a coal producer for the right to develop a Federal coal lease, based on a percentage of the value of the coal or amount of coal produced
Single sealed bidding	A procedure under which bidders submit one sealed bid, without subsequent oral bidding
Small business set-aside tract	A tract offered at a regional sale for which competition is restricted to bidders who qualify as small businesses as determined by the Small Business Administration
Stripping ratio	Cubic yards of overburden per ton of coal recovered
Subbituminous coal	A low-rank coal with low fixed carbon and high percentages of volatile matter and moisture
Surface mining	Above-ground extraction, suitable to depths of about 200 feet
Surface owner consent	Written consent from an owner of the surface land above a coal tract, required before a lease can be finally issued

APPENDIX VII

Tract selection, delineation	A part of Interior's coal activity planning process in which Interior field staff identify appropriate coal tracts for an upcoming regional sale
Underground mining	Below-ground coal extraction
Value-in-use leasing	Leasing of captive tracts based on resource valuations which use comparable sales or discounted cash flow analysis of the adjacent operation

(008513)

25138

AN EQUAL OPPORTUNITY EMPLOYER

UNITED STATES
GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE,$300

POSTAGE AND FEES PAID
U. S. GENERAL ACCOUNTING OFFICE

THIRD CLASS