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The Availability of Reclamation Bonds for Surface Coal Mining

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Before the
Subcommittee on Mining and
Natural Resources
Committee on Interior and Insular Affairs
House of Representatives

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Mr. Chairman and Members of the Subcommittee:

It is a pleasure to be here today to discuss GAO's study of the availability of reclamation bonds for surface coal mine operators, described in our 1988 report Surface Mining: The Cost and Availability of Reclamation Bonds (GAO/PEMD-88-17). We addressed the following questions:

-- How has the use of reclamation bonds changed since enactment of the Surface Mining Control and Reclamation Act of 1977 (SMCRA)?

-- What success have operators experienced in replacing reclamation bonds affected by surety insolvencies?

-- What is the surety industry's perspective on reclamation bonds?

In brief we found that while surety bonds had remained the most prevalent form of financial assurance in all four states we reviewed, surety bonds had become more difficult to obtain since 1984, particularly for small operators. Because of these changes, some operators had turned to the other financial mechanisms allowable under the law, but these impose a heavier drain on assets than uncollateralized surety bonds.

In regard to six surety insolvencies we found that 70 percent of the dollar amount of outstanding bonds were replaced, either by other surety bonds or by some collateral mechanism. Another 10 percent of the operator's obligations were judged fulfilled by the states and their bonds released. Twenty percent of the original bond amount was still unaccounted for. Since a disproportionate number of the mine operators unable to replace bonds were small operators, the twenty percent of the bond value unaccounted for represents bonds held by about one-third of the operators.

We also found that although reclamation bonds had been one of the more profitable property/casualty insurance lines since 1980, members of the surety industry maintain that uncertainties created by economic conditions in the coal market and the extended liability period under the law had combined to make underwriting reclamation bonds an unattractive prospect.

With this brief overview, let me turn to a discussion of the bond requirements imposed by the Surface Mining Control and Reclamation Act of 1977 (SMCRA) on operators seeking a surface mining permit, and then I'll summarize our study methods and present our more detailed conclusions for each of the three questions.

THE BOND REQUIREMENTS OF SMCRA

SMCRA prescribes uniform, minimum environmental protection standards and requires concurrent land reclamation, to the greatest extent possible, to control the surface effects of both underground and surface mining operations. Before engaging in coal mining activities, all coal operators are required to obtain a permit. One of the permit conditions is that an operator must post a performance bond with the regulatory authority to guarantee that mined land will be properly reclaimed. The bond can take various forms, including surety bonds, cash, check, money order, letter of credit, certificate of deposit, negotiable bonds, securities, or real property. Most operators post a third-party bond underwritten by a surety company.

SMCRA requires that a bond be adequate to allow the state to reclaim the land if the operator is unable or unwilling to do so but allows the states a variety of methods of estimating bond adequacy for individual mine sites. For example, Kentucky employs a relatively complex formula incorporating a variety of considerations, including surface acreage, volume and acidity of overburden,[1] and the concentration of specific metals in nearby surface water. Ohio simply applies a flat rate of $2,500 per acre. The minimum bond amount under SMCRA for any permit is $10,000.

[1]Overburden is the worthless rock which must be removed to expose coal for mining.

Reclamation bonds cannot be fully released by the regulatory authority until the coal mine operator fulfills all reclamation requirements. The law, however, allows for partial bond release on a schedule corresponding to three reclamation phases.

1. At the completion of backfilling, regrading, and drainage control procedures, up to 60 percent of the total bond amount may be released.

2. Upon revegetation of the disturbed area, an additional portion of the bond may be released.

3. After all reclamation requirements have been satisfied, the remaining portion of the bond is released.

In all four states that we studied, the maximum portions of the original bond eligible for release at the completion of each phase are respectively 60, 25, and 15 percent. Any partial bond release, however, must leave an amount sufficient to allow a third party to complete reclamation. Complete release of a bond cannot occur for at least 5 years after successful revegetation.[2]

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[2]Ten years in areas with low average precipitation.

GAO SCOPE AND METHODOLOGY

Coal mining operations are conducted in 27 states. We selected four eastern states--Kentucky, Ohio, Pennsylvania, and West Virginia--for our review. These states account for approximately 80 percent of all surface mine permits issued under SMCRA. While we realized that bond conditions in these states might not be representative of conditions in all mining states, it was our view that examining the surety bond environment in these states would contribute substantially to the Congress's assessment of bond availability and the factors that determine it.

We interviewed relevant Office of Surface Mining, Reclamation and Enforcement (OSMRE) officials and state officials in each of the four states. We also interviewed responsible officials from each state's coal mining and reclamation associations and representatives of the Surety Association of America.

From each of our target states, we obtained a listing of permits issued since the enactment of SMCRA together with the financial assurance mechanisms and the source of the bonds used. This enabled us to examine the trends over time in operators' use of surety bonds and in the number of different surety companies providing reclamation bonds.

One concern which prompted our study was the fact that since October, 1984, several surety companies that wrote reclamation surety bonds for surface mine operators had become insolvent. In order to assess the success operators were experiencing in obtaining bonds, we surveyed those operators in our four states who were affected by insolvencies and who consequently had to replace bonds.

USE OF RECLAMATION BONDS OVER THE PAST DECADE

Surety bonds have always been the primary means of assuring that money is available to reclaim lands abandoned by mine operators. In recent years, however, there have been frequent reports of increased difficulty in obtaining reclamation bonds. OSMRE has characterized this decrease in bond availability as "a very serious problem" and, in some cases, a "crisis." In order to assess the severity of the problem, we constructed several indirect indicators of surety bond availability from the computerized data provided by the states and analyzed annual changes in these indicators during the decade following the enactment of SMCRA. These indicators included the number of surety companies writing reclamation bonds and the relative use of surety versus non-surety bonds.

Number of Surety Companies

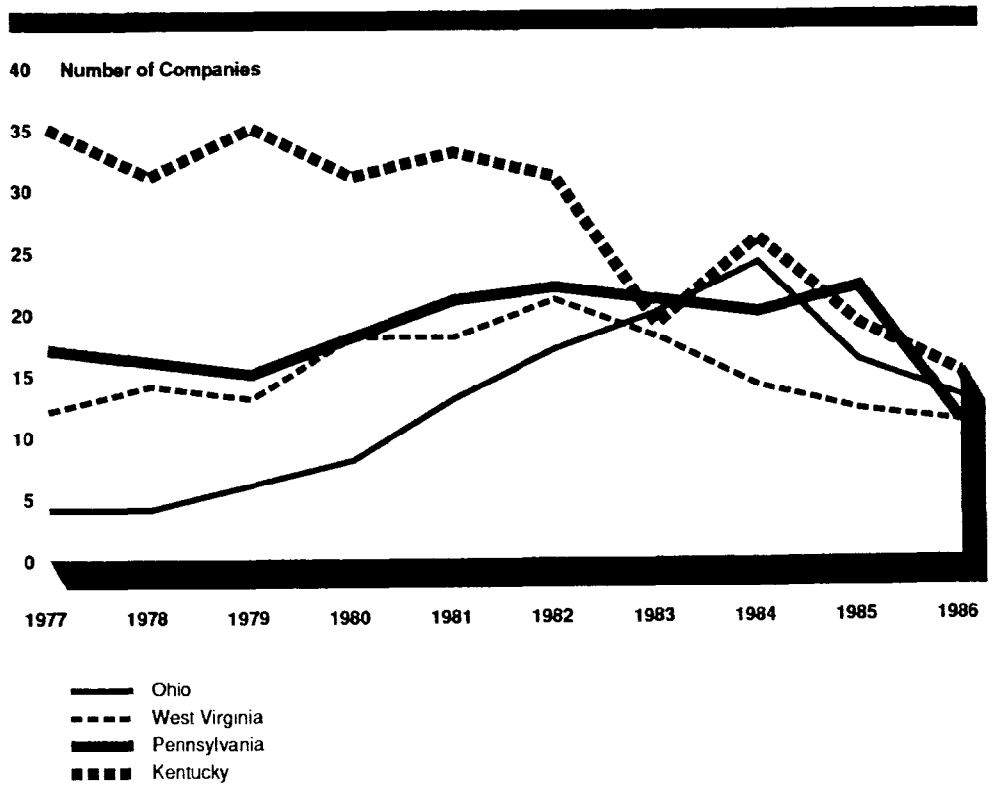
Despite considerable variations among the states, we found a general pattern of a gradually increasing number of surety companies providing reclamation bonds through the late 1970's and early 1980's, followed by a sizable decline since 1982. By 1982, 46 different surety companies were writing reclamation bonds in these four states. However, by 1986 the number had dropped to 26. No new surety companies entered the surety bond market in Ohio and West Virginia from 1984 through 1986, and only one in Kentucky. However, five companies which had not underwritten these bonds in Pennsylvania for at least five years began providing bonds during this period. (See Figure 1.)

Relative Use of Surety Bonds

We computed the use of surety bonds, both their number and their face value as a percent of all bond mechanisms used during this period in Kentucky, Ohio, and West Virginia.[3] Surety bonds had clearly been the bonding mechanism of choice in these three states. From 1977 through 1986, surety bonds averaged 63 percent of all bonds posted in Kentucky, 74 percent of bonds in Ohio, and 70 percent of bonds in West Virginia. Their relative face value represented 90 percent, 95 percent, and 89 percent, respectively,

[3]This statistic was not available for Pennsylvania since that state did not provide us with information on non-surety financial instruments.

Figure 1: Number of Surety Companies Writing Reclamation Bonds in Kentucky, Ohio, Pennsylvania, and West Virginia from 1977 to 1986



of all bonds posted in these states during this period.

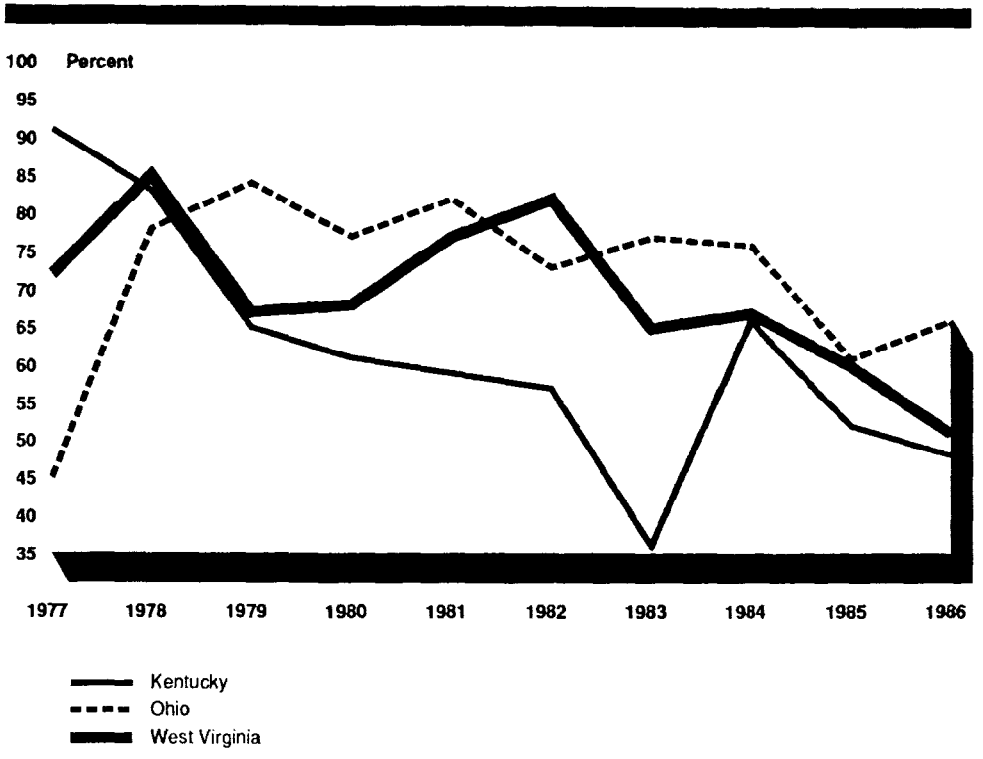
A general downward trend in the relative number of surety bonds posted as compared to other financial guarantees occurred in all three states during this period. In 1977, 91 percent of all bonds used in Kentucky were surety bonds, but by 1986 only 48 percent were surety bonds. Similarly, West Virginia's use of surety bonds declined during this period from 72 percent to 51 percent. Meanwhile the percent of Ohio's bonds that were surety bonds had gone from only 45 percent in 1977 to 84 percent in 1979--but by 1986 it had dropped back to 66 percent. (See Figure 2.) Still, surety bonds remained the most common form of financial guarantee in each state.

Similar but less dramatic declines in the relative face value of surety bonds occurred during this period: 2 percent in Kentucky, 8 percent in Ohio, and 22 percent in West Virginia.

Views of State Officials and Mining Associations

These trends were consistent with the views expressed by state regulatory authorities and representatives of mining associations in the four states we visited. With varying degrees of concern they all described a situation in which it had become increasingly difficult for operators, particularly smaller operators, to obtain surety bonds. At the time of our review, most characterized the

Figure 2: Number of Surety Bonds Posted In Kentucky, Ohio, and West Virginia as a Percent of All Bonds Posted from 1977 to 1986



diminished availability of surety bonds as a serious problem, if not a crisis.

Ohio was experiencing a particularly critical situation because of the recent insolvency of a large provider of reclamation bonds in the state and the inability of this firm's clients to find replacement bonds. Kentucky officials reported that surety companies had begun requiring substantial collateral--as much as 100 percent of the bond's face value--before writing a bond and this presented serious problems for small independent operators. West Virginia officials reported that the surety companies' requirement of substantial collateral had resulted in more operators turning to non-surety bonds. Officials in Pennsylvania reported a similar trend toward non-surety bonds, but they also reported that most of the operators affected by the 1985 insolvency of one large surety company had been able to find replacement bonds.

REPLACEMENT OF BONDS AFFECTED BY INSOLVENCY OF SURETY COMPANIES

Between July 1985 and March 1987, six surety companies which had underwritten reclamation bonds in the states of Kentucky, Ohio, Pennsylvania, and West Virginia became insolvent. For operators who had been bonded by these surety companies, the effect of these insolvencies was the loss of an essential prerequisite to mining under SMCRA: the financial guarantee that the land they had been

permitted to mine would be reclaimed. The affected operators were required either to replace their bond with another surety bond or with one of the other bonding mechanisms allowable under SMCRA or to cease mining operations on the land whose reclamation had been guaranteed by these bonds. Over 1,300 bonds worth a total of nearly $50 million had to be replaced.

Methods Used to Replace Surety Bonds

We found that one third of the affected bonds were replaced by other surety bonds representing almost 60 percent of the total face value of the original bonds. Bonds worth another ten percent were released by state regulatory authorities because reclamation was judged complete. Eleven percent of the remaining value were replaced by non-surety methods. Twenty percent remained outstanding at the time of our survey. (See table 1.)

Considerable variation existed among the states. Pennsylvania and Ohio operators were much more successful in finding replacement surety bonds, with Ohio replacing more than half and Pennsylvania four fifths of the affected bond amounts in their states. None of the affected bonds in West Virginia--and only 3 percent of Kentucky's bond value--was replaced by other surety bonds. Most of the bond amount that was replaced in Kentucky was based on letters of credit, while in West Virginia certificates of deposit were more common. Nearly one third of all

Table 1: Amount of Affected Bonds Released or Replaced by Different Financial Mechanisms

	Kentucky		Ohio		Pennsylvania		West Virginia		Total	
	Amount	**Percent**	**Amount**	**Percent**	**Amount**	**Percent**	**Amount**	**Percent**	**Amount**	**Percent**
Released	$50,000	2.0%	$1,874,410	13.7%	$1,082,435	8.3%	$98,259	10.3%	$3,105,104	10.3%
Replaced	$732,385	29.8%	$8,614,127	63.0%	$10,974,247	83.9%	$776,741	81.7%	$21,097,500	69.9%
Certificate of Deposit	$119,585	4.9%	$351,445	2.6%	$294,306	2.3%	$426,741	44.9%	$1,192,077	4.0%
Letter of Credit	$532,600	21.7%	$1,058,338	7.7%	$246,270	1.9%	$47,000	4.9%	$1,884,208	6.2%
Surety Bond	$78,200	3.2%	$7,167,625	52.4%	$10,433,671	79.8%	$0	0.0%	$17,679,496	58.6%
Other (cash check, etc.)	$2,000	0.1%	$36,719	0.3%	$0	0.0%	$303,000	31.9%	$341,719	1.1%
Outstanding	$1,676,590	68.2%	$3,192,673	23.3%	$1,019,960	7.8%	$75,500	7.9%	$5,964,723	19.8%
Total	**$2,458,975**	**100.0%**	**$13,681,210**	**100.0%**	**$13,076,642**	**100.0%**	**$950,500**	**100.0%**	**$30,167,327**	**100.0%**

surety bond replacement in West Virginia was accomplished by operators depositing cash or cash equivalents directly with the state.

Sources of Difficulty in Replacing Bonds

We asked operators what factors had posed the problems in their attempts to obtain replacement surety bonds. The simple inability to find a surety company willing to write reclamation bonds ranked highest in their list of problems, while the rate charged by surety companies appeared to be viewed as a less serious obstacle by the respondents. The collateral required by surety companies was also perceived to provide a major problem to operators seeking reclamation bonds.

Company Size as a Determinant of Bond Availability

Because of reports that the difficulty in obtaining bonds had disproportionately affected smaller operators, we compared the success of small and large operators in finding replacement bonds. We found that three quarters of the larger operators (those who produced 100,000 or more tons of coal annually) had obtained replacement bonds, but that only ten percent of the smaller operators had. In addition, we found that those smaller operators who did obtain replacement surety bonds paid higher collateral rates than their larger counterparts.

SURETY INDUSTRY PERSPECTIVE ON RECLAMATION BONDS

In order to determine the surety industry perspective, including how the companies determine risk and set rates for reclamation bonds, we interviewed representatives of the surety industry and compared premium and loss data for reclamation bonds provided by the Surety Association of America with similar property/casualty data for the entire surety industry and for the property casualty industry as a whole.

Surety Bonds and Other Insurance Lines

Mining reclamation bonds represent a tiny fraction of the property/casualty insurance business. Approximately one percent of all surety bonds written from 1980 through 1985 were reclamation bonds. The entire surety bond line accounted for less than one percent of the total property/casualty premiums earned during this period.

Surety industry representatives pointed out to us that they provide a product which differs in important aspects from that provided by other insurance lines. Like insurance, surety bonds are risk-transfer mechanisms. In the case of mining reclamation bonds, the risk of the surface mine operator failing to perform reclamation is transferred from the public or governmental agency to the surety. For a fee, the surety company promises to pay a

predetermined sum of money to the state regulatory authority in the event that the coal operator does not fulfill the reclamation obligation. However, surety differs from insurance in several ways. First, with insurance, the insured pays the premium and receives the benefit of the policy. With a bond, the coal operator posts the bond and pays the premium, but the state receives the benefit.

Another difference between the insurance and surety industries concerns the underwriting process. While the insurance industry's underwriting process is based upon loss history and experience, underwriting for the surety industry is based upon credit principles. In the case of insurance, underwriting and pricing are based upon the spread of risk. Losses are expected and the premiums serve as a source of funds to pay the losses. In contrast, underwriting for surety bonds is based upon the credit appraisal of the coal operator. Surety bond premiums, usually equal to one to two percent of the bond amount, are used primarily to cover the expense of conducting the credit appraisal. Surety companies will not enter into a transaction in which they anticipate a loss. With surety bonds, according to one representative of the industry, premiums were so low compared to the potential exposure that if surety companies developed a formula-rated system similar to the insurance industry, operators would not be able to afford bonds. Thus, adjusting rates to lessen exposure was not a surety industry practice and the rates

recommended by the Surety Association of America to their member companies had not changed over the previous decade.

Surety Industry Concerns about Reclamation Bonds

According to surety representatives, the stringent underwriting standards were a direct result of the bonding provisions mandated under SMCRA. Surety officials cited underwriting problems that SMCRA presents, including length of obligation and bond size.

First, the surety underwriter must commit to a long-term obligation under the existing law. Most coal mine reclamation bonds are in force for at least seven years, and their terms could become much greater depending upon revegetation and bond-release provisions. Surety companies find it difficult to foresee the future financial condition of most coal operators beyond one or two years.

A second area of concern for surety companies was the size of the bond. Surety bond underwriters feared that changes in conditions or technology might require unexpected increases in the bond amount during the time the commitment was in force. If these changes were to occur, the surety company would be forced either to increase its financial guarantee or accept the risk that its rejection of the new bond would drive the operators into default,

thereby eventually causing forfeiture of the original bond. Some large scale surface mining projects can generate bond requirements as large as $200 million. Bonds of this size may be difficult to obtain simply because of their magnitude. Surety companies are reluctant to provide this coverage for any single company, regardless of its financial strength or reclamation history. Moreover, increased bond amounts can have a saturating effect on the surety industry's capacity.

Underwriters were also apprehensive about the position of coal in the marketplace. During the preceding several years, coal prices had experienced a downward trend. Long-term contracts to supply coal were virtually nonexistent and downturns in oil and gas prices could present utilities with cheaper sources of generating electricity. Faced with relatively depressed coal prices, weak demand, and stockpiled coal reserves, operators, particularly smaller operators, had found it more difficult to strengthen their financial positions.

To mitigate some of these underwriting problems, surety representatives suggested several measures to increase bond availability. These included:

-- use incremental and phased bonding to reduce both the bond amount required and the total liability at any one time;

-- allow surety companies to unilaterally cancel reclamation bonds on undisturbed land;

-- better define reclamation requirements;

-- safeguard surety companies against potential unforeseen increases in bond amounts; and

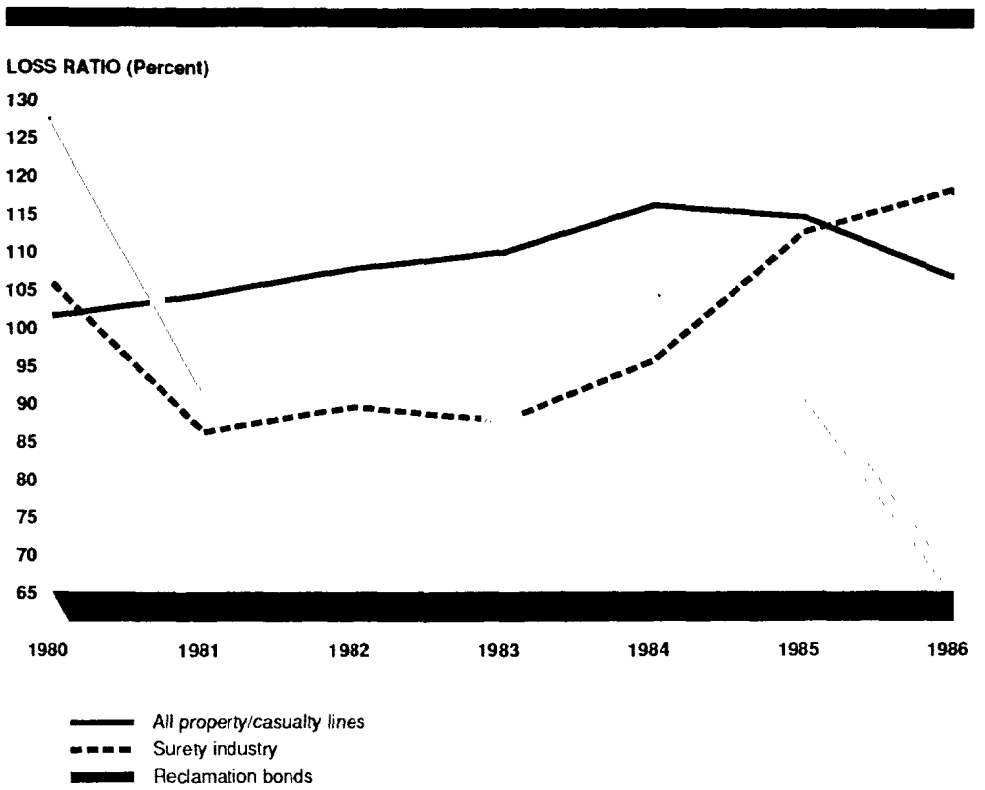
-- simplify and expedite the bond release process.

However, one surety representative cautioned that, even if such measures were adopted, an availability problem would always exist for some operators, that marginal or poorly financed operators should not expect to find a ready bond market to secure their reclamation obligations.

Recent Loss History of Surety Industry

We examined the loss experience of the reclamation bond portion of the surety industry in this decade to see if it paralleled our finding of a diminishing availability of surety bonds. We found no clear parallel. Figure 3 depicts the combined loss and expense ratio--the ratio of losses and expenses to premiums earned--for the years 1980 through 1986 by three overlapping sectors of the industry: the property/casualty insurance industry as a whole, the surety industry, and that

Figure 3: Combined Loss and Expense Ratio for All Property/Casualty Lines, Surety Industry, and Reclamation Bonds*: 1980-1986



*Reclamation bond expense ratio estimated at 67.5.

SOURCE: Best's Aggregates and Averages; Surety Association of America

portion of the surety industry represented by reclamation bonds. During this period the surety industry reported a combined loss ratio of 100.3 percent, with premiums being nearly equal to losses and expenses. In contrast, the reclamation bond industry had a better experience with an estimated 90 percent loss ratio. For the same period, the property/casualty industry reported a 108.9 percent combined loss ratio. As figure 3 demonstrates, reclamation bonds experienced serious losses in 1980, but their loss ratios between 1980 and 1986 have generally declined to levels well below those of the surety industry or the overall property/casualty insurance industry. The surety loss ratio had followed a different trend. It increased after 1981, and in 1986 the line incurred its largest loss in more than a decade. The reporting differences between our data sources make these comparisons only approximate.

CONCLUSIONS AND POSSIBLE REMEDIES

From our interviews with state regulatory authorities and industry representatives, our analysis of state-supplied data, and operator responses to our questionnaire, we found that reclamation bonds had become unavailable or too costly for some operators. And, while it was true that surety rates had not changed substantially over the years, the few surety companies which were underwriting reclamation bonds tended to require substantial collateral--in some cases, 100 percent. The alternatives to surety bonding under SMCRA have much the same effect as high

collateral rates--that is, the encumbrance of assets. Small companies could expect to be most severely affected by this trend. Their cash reserves and their surety credit line were limited; they needed bonds released from their current operations in order to obtain permits to continue mining--and reclamation. A tight bond market made them less resilient to downturns in the coal market.

We concluded that, as long as the world market for coal remained depressed because of the relatively low price of petroleum, the supply of reclamation bonds could be expected to remain limited. If no action were taken to loosen the tight bond market, more operators, particularly the smaller ones, would be likely to abandon surface mining. Among these would be a number of marginal operators who would have defaulted on their reclamation guarantees. On the other hand, some otherwise reliable operators could also leave the industry. Without action, both economic and environmental damage would be sustained by the states in which mining is a significant source of income.

We also concluded that solutions to the bond availability problem would not be found from a single source. There appeared to be individual actions that can be taken by sureties, by state regulatory authorities, and by OSMRE to help alleviate the situation.

Surety Industry

The reclamation bond industry managed to remain profitable during the 1980's while its sister lines of property/casualty insurance were experiencing significant pre-investment losses. The success must be attributed to its conservative approach to offering bonds, rather than to its pricing strategies. Surety company rates did not take into account any anticipation of loss and surety companies did not use the insurance industry's method of increasing rates to compensate for additional risk. The position of the Surety Association of America was that "loss sensitive" underwriting of a reclamation bond is "dangerous" and their underwriting practices could not be compared to how the insurance industry measured risk associated with predictable losses caused by negligent acts. Yet the collateral requirements imposed by many sureties were a form of loss-sensitive underwriting. It would appear that surety bonds might be priced to reflect the probability of default based on the applicant's and the industry's forfeiture history and likely future in a manner similar to that in which the liability insurers price their products to reflect changes in risk.

Short of such loss-sensitive bonding practices, we saw at least one example of innovative surety company practices in which the company had become actively involved in assuring its clients' compliance with SMCRA. A Kentucky-based company provided both the financial guarantee required to obtain a permit and extensive

knowledge of state enforcement policy and practices. In contrast to the annual inspection of operations typical of most surety companies, this company performed frequent, even weekly inspections and forewarned its customers of potential violations. The company had developed a complex pricing scheme for its services and its rates were generally in excess of standard surety company rates. It did not demand collateral for bonds but depended on two payments by operators: a variable fee based on tonnage produced, and scheduled payments into an interest-bearing escrow account. We concluded that, while reclamation bonding provides only a small portion of insurance premiums, a market might exist for knowledgeable surety companies to offer a combination of risk underwriting and proactive loss prevention.

State Regulatory Authorities

We saw some evidence from the Commonwealth of Pennsylvania that state regulatory authorities could help to alleviate the problems of operators seeking surety reclamation bonds. It appeared that efforts to attract new surety companies into the state by promoting the soundness of the state program and the consequent low risk of bond forfeiture could be effective in expanding the bond supply. Additional effort to expedite the release of bonds where reclamation had been accomplished (without abandoning the environmental safeguards imposed by SMCRA) could reduce an operator's liability and might reduce the reluctance of

sureties to extend additional bonding. We also suggested that states monitor the success of alternative bonding procedures being used by the other states, including the use of bond pools designed to make it easier for smaller operators to provide financial guarantees.

Office of Surface Mining, Reclamation and Enforcement

OSMRE had shown some sensitivity to the bonding problem and had taken some action to focus attention on it. In a draft document circulated in late 1985, it referred to the problem as a "crisis." In late 1986, it sponsored a workshop for coal operators, state officials, and members of the surety industry to examine the causes of the problem. The Director of OSMRE had also discussed possible alternative approaches to bonding in different public forums. However, we found OSMRE field officials generally unaware of, or unconcerned about, a bonding problem. It seemed that the assistance and active participation of OSMRE officials would enhance any state-level effort to broaden the reclamation bond supply within the state.

RECOMMENDATION

In our 1988 report, we recommended that the Secretary of the Interior direct OSMRE to explore ways to develop a bond market in which more bond sources would be available to responsible coal mine operators and regulators would be more confident that reclamation would be timely and successful. We suggested that this be done by bringing together all relevant parties, including surety representatives, coal mine operators, particularly smaller operators, environmental groups, and state officials. Among the matters to be discussed would be:

-- whether or not the liability period for reclamation bonds could be shortened without negatively affecting the environment;

-- whether state bond pools could be developed in additional states as alternative bonding mechanisms; and

-- whether innovative methods designed to provide greater flexibility in underwriting reclamation bonds could be developed without increasing the risk of bond forfeitures.

In response to our recommendation the Department of the Interior agreed that additional ways have to be found to assure

that bond sources are available to responsible operators. Within the Department, the Office of Surface Mining Reclamation and Enforcement took various actions, including

- -- convening a national bonding workshop;
- -- encouraging its field officials to become more involved in assisting states with bonding issues;
- -- designating bonding as one of its priority research issues for fiscal year 1989;.
- -- allowing the use of phase bonding, whereby bonds can be written for specific phases of the reclamation process without imposing long-term liability; and
- -- exploring the possibility of federal/state guarantees on bonding pools.

This completes our statement on reclamation bond availability. I will be happy to respond to any questions.