REMINING OF ABANDONED MINE LANDS THE PENNSYLVANIA APPROACH

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INTRODUCTION

Coal mining in Pennsylvania has had a long tradition beginning in the late 1800's and continuing to date. Until about 1930, most coal was mined through underground mining techniques. Surface mining began to be a significant industry in the late 19301s. It reached a peak of 46 million tons in 1977. Today, production averages about 30 million tons per year.

Until 1964, surface coal mining was largely unregulated at least as far as surface reclamation was concerned. There were no requirements to return the land to its original contour or to revegetate the site. As a result, there are over 230,000 acres of abandoned mine lands in Pennsylvania. These abandoned mine lands contribute to the pollution of over 1700 miles of streams and create an unsafe, unsightly landscape. The estimated cost to address the abandoned mine problems in Pennsylvania is $15 billion including mine subsidence and acid mine water treatment. The estimated cost for the hazardous priority 1 and priority 2 cases, identified within the scope of Title IV of Fed SMCRA, is $1.8 billion. Pennsylvania can expect only about $400 million in Title IV funding through 1992, so, it is easy to see that Pennsylvania needs help. Only about 1/4 of the hazardous sites will be reclaimed with Title IV funds and hardly any of the water pollution problem will be addressed.

The 230,000 acres of abandoned coal mined lands contain much mineable coal reserves. In fact, about 40% of today's mining operations involve some abandoned mine lands. We believe that this percentage will increase if incentives are available to active coal operators to make remining and reclamation more financially possible. Incentives that reduce the cost of mining would encourage remining and would do much to reduce $15 billion reclamation bill facing the public. Of course, such a program will take time. But, it will also take a grassroot effort

involving active coal operators, the environmental community, the state regulatory authority and the involved public. Without this grassroot cooperation, implementation of a remining program will fail. We cannot allow such a failure because remining will be the only long term source of reclamation when Title IV expires.

This paper will present some mechanisms for encouraging the remining of abandoned mine lands. None of the incentives discussed are particularly innovative. Much of the creative thinking and conceptual development was done by Brent Blauch (former Director, Office of Environmental Energy Management with the PA. DER) and his staff.

REMINING INCENTIVES

Incentives to encourage remining can take several forms. First, there are strictly financial incentives. Reduced bonds, reduced reclamation fees and bond credits might reduce the mining costs for a particular mine enough to make the operation feasible. Second, there are permitting incentives such as joint information gathering to reduce permitting costs and permitting time. Third, there are performance incentives such as changed performance standards that could reduce operating costs. Finally, there are disincentives such as operator liability that, if relaxed, could make mining in certain areas less risky. Some of these incentives will require legislative action at both the state and federal level. Some require with only OSM approval of a program amendment.

a. Financial Incentives

There are several bonding related incentives that are available under the alternative bonding authorities in the federal SMCRA and the PA. SMCRA. These alternative bonding scenarios would have to meet the provisions of 30 CFR 800.11(e) which require the "...alternative must assure that the regulatory authority will have available sufficient money to complete the reclamation plan for any areas which may be in default at any time; and (2) The alternative must provide a substantial economic incentive for the permittee to comply with all reclamation provisions." PA. now operates an approved alternative bonding program which meets the above requirements. This program consists of a per acre bond based on the height of highwall and a $50 per acre reclamation fee. These payments form a fund to supplement any forfeited bonds. Although these bonding incentives may not involve a substantial financial savings to the operator, some savings will be experienced. These incentives can be implemented without any change to state or federal law.

1. Reduced Bonds

Under this proposal, the per acre bond is reduced for the area to be remined. The reclamation fund would be available to supplement any forfeited bonds. So, the legal requirements would be met. The reduced bond rate could reduce operation costs and be a sufficient encouragement to remining. When the remining project would be profitable without the incentive, the reduced bond costs would be a small "bonus" for remining. PA. will be implementing this incentive later this year.

2. Bond Credits

Under this proposal, a coal mine operator is given bond credit for any acres of abandoned mine lands he voluntarily reclaimed. The amount of credit would be based on the value of the reclamation as determined by the Department. The credit will come in the form of a "bond letter" from the Department guaranteeing the established amount of money. The bond letter can apply to any mining permit. Upon completion of mining and final bond release on the area, the credit would be canceled.

To implement this proposal, a fund is needed against which the bond letters would be written. The fund would be a revolving fund which to be regenerated by released bonds. Since no money changes hands with this proposal, the cost of the program will be small after the initial enactment. The only cost would be where a forfeiture occurs and the fund must pay for reclamation. The advantage to the Department is that reclamation is accomplished at no cost. The advantage to the operator is that it will be less difficult to get a bond and there will be no colateral required for the bond. In order to reduce the risk of forfeiture, only qualified operators would be eligible to participate.

The Department's Mining and Reclamation Advisory Board is developing this proposal more thoroughly including criteria for operator qualifications, funding levels and funding sources. This proposal will not require any changes to either state or federal laws and could be implemented as soon as funding becomes available.

3. Remining Operator's Assistance Program

This proposal is a corollary to SOAP. Operations that involve remining would be eligible for ROAP funding. ROAP would pay for hydrologic information, surface and groundwater information and if needed, overburden analysis. The existing SOAP procedures would be utilized.

This proposal could have a significant benefit to the mine operator. Not only would it reduce the cost of application preparation for abandoned mine lands but it also would reduce the cost of data gathering on unmined areas adjacent to abandoned lands. The major impediment to this proposal is the unavailability of funds at this time. A federal appropriation from the Abandoned Mine Reclamation Fund seems desirable for this purpose but that would require congressional action.

b. Permitting-Incentives

The preparation of permit applications whether for operations in virgin areas or for operations in abandoned mine areas, is expensive. Geologic data, overburden analysis and hydrologic monitoring are the more costly data elements. If this data where made available to the operator, the reduced cost of permitting may provide sufficient incentive to remine the abandoned mine lands.

In PA., there are many watersheds that have been completely destroyed by previous mining. To reclaim these watershed, the Department must collect geologic, hydrologic and topographic information for design and construction purposes. Since this data must be collected anyway, why not provide it to the coal operator and allow him to do the reclamation along with resource recovery? Why not designate these watersheds as "suitable for remining"?

Conceptually, PADER resources would be used to collect and analyze geologic, hydrologic and overburden data in a watershed of sufficient size, with sufficient coal reserves and with a character that would be amenable to a watershed clean up.

Of course, such a concept has several of problems that must be addressed before a plan can be developed. First, because data collection will require a lot of personnel, objective criteria for selecting a watershed must be established so priorities can be developed. Selection criteria could include; the amount of environmental improvement to be accomplished, the amount and characteristics of the recoverable coal, the availability of data, and the interest in remining the watershed. Second, adequate resources must be allocated to the program to insure its success. In PA., the staff involved in the program to designate "areas unsuitable for mining" will be used for designating "areas suitable for remining". Third, permitting, which will still be necessary to comply with the federal law, must be accomplished quickly. It must also be coordinated for the entire watershed so improvements will occur within a reasonable time-frame. This could require a process of operator qualification to insure that resource recovery and environmental improvement are accomplished.

c. Performance Incentives

The federal SMCRA and for the most part state laws adopted to obtain primacy do not recognize the differences between mining in "virgin" areas and mining in areas that have been previously disturbed. As a result, some of the informational requirements and performance standards in the laws and regulations, which make perfect sense for virgin areas, have no significant environmental benefit in abandoned mine lands areas and in many situations cannot be attained without substantial additional costs. For example, all of the reclamation plan information is not necessary in remining situations. This includes some mapping requirements and the proposed measure of vegetative success. Since the abandoned mine land area has already experienced a negative hydrologic impact, a discussion of the probable hydrologic consequences and the protection of the hydrologic balance is moot. Similarly, a cumulative hydrologic impact analysis would have little meaning. The whole discussion of pre and post mining land uses is irrelevant. Changing the landscape from spoil piles and acid ponds to trees and grasslands is sufficient justification for permit approval.

Many of the performance standards are also unnecessary. Most of the surface and groundwater monitoring requirements have no use from the perspective of protecting the hydrologic balance from a single operation. Surface and groundwater monitoring would be important from the watershed perspective to measure any improvements as a result of the remining. This monitoring would be done by the Department. The performance standards for reaffecting previously mined lands are unnecessarily burdensome. Almost any land configuration that removes old spoil piles and fills acid pits and promotes runoff to surface streams is good or at least better than spoil piles and acid pits.

d. Removing Disincentives

As mentioned previously, the federal SMCRA does not distinguish between proposed mines in virgin areas and proposed mines in abandoned mine land areas. Many of the liabilities imposed by the law are appropriate for virgin areas. However, in abandoned mine land areas, operators are reluctant to risk unforeseen liabilities.

PA. initiated a major effort to relax operator liability for abandoned mine lands with pre-existing discharges. After years of work with the Environmental Protection Agency and OSMRE, there is finally a program in place that exempts an operator from treating a pre-existing acid discharge. The program has some caveats such as the need to develop and implement an abatement plan and to collect six months of data on the discharge. The permit preparation is costly and as a result, permit issuance takes longer than a normal permit but so far, 75 coal operators have applied for relaxed effluent standards.

Obtaining approval for this program took changes to the Federal Clean Water Act, EPA regulations and both state law and regulation. But the program has removed a major disincentive to the remining.

SUMMARY

There is much more that can be done in all four categories discussed in this paper. Many proposals to encourage remining were discussed by Brent Blauch in his report to OSMRE. Most of the proposals will require amendments to federal SMCRA. It is heartening there is some interest in promoting remining at the federal level and remining legislation may appear in this session of Congress. It is important, however, that this legislation be carefully crafted to provide sufficient flexibility at the state level to develop incentives that will work. To work, the program must not only be technologically sound but also must be acceptable from a public perspective. A program to declare a watershed "suitable for remining" may be the best technical solution to an environmental problem but it may not be implementable unless there is grassroot public support. Rigid federal standards will not encourage remining; rigid standards may have the opposite effect. But for Congress to provide the flexibility needed to develop a successful remining program, they must have confidence that the state regulatory programs are being managed properly and are achieving the goals of the federal SMCRA. Only when Congress is convinced that SMCRA is being adequately implemented by the state regulatory authorities will it allow flexibility. We must prove ourselves if we are to have any hope of regulatory flexibility.