

**OFFICE OF SURFACE MINING  
RECLAMATION AND ENFORCEMENT**

**Annual Evaluation Summary Report**



for

Evaluation Year 2000

(October 1, 1999 to September 30, 2000)

**FINAL**

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## I. Introduction

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining Reclamation and Enforcement (OSM) in the Department of the Interior. SMCRA provides authority to OSM to oversee the implementation of and provide Federal funding for State regulatory programs that OSM has approved as meeting the minimum standards specified by SMCRA. This report contains summary information regarding the Ohio Program and the effectiveness of the Ohio Program in meeting the applicable purposes of SMCRA as specified in section 102. This report covers the period of October 1, 1999, to September 30, 2000. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at the Columbus OSM Office.

The following acronyms are used in this report:

ABS	Alternative Bonding System
ACOE	US Army Corps of Engineers
ACSI	Appalachian Clean Streams Initiative
AEP	American Electric Power
AMD	Acid mine drainage
AMDAT	Acid mine drainage treatment and abatement plan
AML	Abandoned mine land
ARP	Application to Revise a Permit
ATP	Authorization to Proceed
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFR	Code of Federal Regulations
CHIA	Cumulative Hydrologic Impact Assessment
EPA	Environmental Protection Agency
EY	Evaluation Year
HRWRP	Huff Run Watershed Restoration Partnership
NEPA	National Environmental Policy Act
NRCS	Natural Resource Conservation Service
OAC	Ohio Administrative Code
Ohio	Ohio Division of Mineral Resources Management
OSM	Office of Surface Mining Reclamation and Enforcement
PPD	Policy Procedures Directive
PRP	Principle Responsible Parties
RC&D	Resource Conservation and Development Council
RCIC	Raccoon Creek Improvement Committee
SMCRA	Surface Mining Control and Reclamation Act

## II. Overview of the Ohio Coal Mining Industry

Forty-eight mining companies produced 22.5 million tons of coal in 1999, a substantial decrease of 18.8 percent over 1998 production. The total coal sold in 1999 was 23.3 million tons with a value of \$643 million. The average price per ton of coal was \$27.38, a slight decrease from the 1998 average of \$27.97.

The number of coal-producing companies in Ohio decreased from 52 in 1998 to 48 in 1999. The number of producing mines decreased from 129 to 116. During 1999, surface mining operations at 108 mines produced 11.0 million tons (49 percent of total production). There was a 16 percent



Active surface mining operation in Vinton County

decline in coal production from surface mines from 1998. Underground mining at eight mines produced 11.5 million tons (51 percent of total production). There was a 22 percent decline in production from underground mines from 1998. Longwall mining of 7.8 million tons accounted for 67.4 percent of the total underground production (35 percent of total production).

The Ohio coal industry employed 3063 people in 1999, down 10 percent from 3397 in 1998. Production employees, numbering 1721, accounted for 56 percent of the 1999 coal work force. Wages earned by all coal industry employees in 1999 totaled more than \$153.2 million, also down 10 percent from 1998.

Ohio ranked 14th of the 25 coal-producing States in the nation and produced 2.1 percent of the nation's coal in 1999. In 1998, Ohio ranked twelfth in the nation and produced 2.8 percent of the nation's coal. Ohio ranked third nationally in coal consumption, behind Texas and Indiana.

(Data source: Ohio Geological Survey, 1999 Report on Ohio Mineral Industries )

### III. Overview of the Public Participation Opportunities in the Oversight Process and the State Program

As reported in previous oversight reports, the Ohio Division of Mineral Resources Management (Ohio) has continued several efforts to keep the public informed of activities related to mining and reclamation, in addition to the routine public participation opportunities specified in the Ohio program. Ohio maintains an Internet web page that provides basic program information to the public. Ohio maintains an open public records policy. Ohio meets quarterly with a group of industry representatives as an extension of its permitting workgroup. The workgroup discusses issues related to Ohio's permitting process and other topics of general interest to the industry. Ohio conducts annual public meetings to obtain information about potential AML projects from citizens. Ohio developed a citizen guide that provides information on all of its programs related to mining. Ohio also continued its efforts with the Ohio Mine Subsidence Insurance Underwriting Association to educate local governmental agencies and local planning commissions about mine subsidence. These efforts included conducting public meetings, working to provide maps of abandoned underground mines to local agencies, and making the maps available over the Internet.

In addition to outreach efforts by Ohio, OSM also conducts outreach to the public. OSM maintains a mailing list of interested persons, including representatives of industry, environmental and citizen groups, and individuals who have expressed interest in mining in Ohio. OSM routinely sends out notices of *Federal Register* publications concerning public comment periods regarding Ohio program amendments and OSM's proposed rule-making actions. OSM prepares and distributes a monthly newsletter to everyone on the OSM mailing list. The OSM newsletter provides information on current activities of the agency, oversight updates, and Oversight and Inspection Office activities. OSM also maintains an Internet web site that provides OSM news and information on a national level. The Oversight and Inspection Office has its own Internet web site ([www.coh.osmre.gov](http://www.coh.osmre.gov)) that includes items such as performance agreements, final oversight reports, and our monthly newsletter.

Ohio and OSM made presentations at the Ohio Coal Association's annual meeting.

Ohio and OSM continued to work together to organize and support development of local watershed groups in support of the Appalachian Clean Streams Initiative (ACSI). OSM and Ohio continued to support activities of the Monday Creek Restoration Project and the Raccoon Creek Improvement Committee by attending meetings of these organizations. OSM also attended meetings or otherwise participated with several other watershed organizations interested in watershed restoration including: Duck Creek, Huff Run, Mill Run, Leading Creek, Moxahala Creek, Sunday Creek, Wills Creek, and Yellow Creek.

OSM and Ohio participated in meetings of the Ohio Mineland Partnership to exchange information concerning reclamation of abandoned mine lands and to promote OSM's ACSI and

remining initiatives. The Ohio Mineland Partnership is a citizen s group seeking more funding for AML reclamation.

#### IV. Major Accomplishments/Issues/Innovations in the Ohio Program

##### A. Program Accomplishments and Initiatives

###### On-the-Ground Accomplishments

Ohio continues to effectively administer SMCRA regulatory and AML programs to protect coal field citizens and to restore land to pre-mining conditions. Overall industry compliance on active mine sites continues at a high level. The on-the-ground, end-result of the mining and reclamation process is predominantly restoration of mined lands to a pasture/grazing post-mining land use, with permanent water impoundments interspersed to support the land use. OSM's evaluation identified areas outside of the permitted area with minor impacts related to hydrology as a result of mining. OSM also identified three major hydrologic impacts related to water supply and wetland degradation/loss. OSM's general characterization of the on-the-ground accomplishments are based on OSM's experience with mining and reclamation in Ohio. Observations regarding industry compliance and off-site impacts are supported by OSM's findings from 195 site visits on regulatory sites, 45 site visits on AML and AML emergency sites, and other oversight evaluations conducted during this review period. Section VII of this report contains additional information on the number of inspections and site visits conducted.



Reclaimed surface mine with permanent impoundment in  
Tuscarawas County

During the 2000 Evaluation Year (EY), October 1, 1999, through September 30, 2000, the Ohio mining industry, in conjunction with the Ohio Division of Mines and Reclamation, achieved final reclamation (Phase III bond release) on 6926 acres, compared to 5170 acres last year; established soil replacement and vegetation for Phase II bond release on 3193 acres, compared to 6653 acres last year; and backfilled and graded mining areas for Phase I bond release on 2556 acres, compared to 4398 acres last year.

###### AML Accomplishments

The Ohio AML program continues to abate problems related to abandoned mines through its emergency and regular AML programs.

Ohio identified and abated 22 emergency conditions during EY2000, eleven projects less than in each of the two previous years. The emergency projects included: 13 for mine subsidence; five vertical shafts; one portal, two landslides; and one dangerous impoundment.

One noteworthy project was a landslide that affected a home. The landslide, caused by an abandoned mine, made the house uninhabitable. The area was so unstable that workers were unable to safely work around the house to stabilize it. The house had to be destroyed so the slide could be stabilized to prevent it from impacting the street below. The AML Emergency Program only provides for correction of the emergency condition and does not provide for relocation of impacted parties. Therefore, Ohio worked with other Federal, State, and local government agencies to successfully relocate the resident, dismantle the house, and stabilize the landslide.



AML landslide impacting a house in Meigs County

Ohio reported the following accomplishments in the Abandoned Mined Land Inventory System (AMLIS):

- " 1.4 miles of clogged stream restored
- " 187.9 acres of clogged stream lands reclaimed
- " 3975 feet of dangerous highwall eliminated
- " one dangerous impoundment reclaimed
- " 14.9 acres of dangerous landslide stabilized
- " 25 acres of gob reclaimed
- " 400 feet of highwall reclaimed
- " two hazardous water bodies reclaimed
- " five portals sealed
- " 28 contaminated domestic water supplies replaced
- " 4.5 acres of subsidence stabilized
- " five vertical openings sealed

### Reorganization

Ohio experienced a major reorganization resulting in new and additional responsibilities during this evaluation period. On July 1, 2000, the Ohio Division of Mines and Reclamation and the Ohio Division of Oil and Gas merged into one new agency within the Ohio Department of Natural Resources. The new agency is called the Division of Mineral Resources Management.



The new agency has responsibility for coal mining, industrial mineral mining, oil and gas production, mine safety, and abandoned mines and wells. Michael Sponsler, the new chief of the division, has implemented a comprehensive reorganization plan developed by the Department of Natural Resources. The reorganization includes many changes in the management structure to manage the combined responsibilities of both divisions. Ohio held a Future Search Conference in September to help the transition into one division and to develop a strategic plan for the new agency. The conference included internal managers and staff as well as external customers.

Ohio plans an extensive cross-training program especially directed to the inspection staff. The objective is that inspectors will be cross-trained to inspect all facilities: oil and gas, coal, and industrial minerals under a new classification called a Mineral Resources Inspector.

As with any major reorganization and new managers, the transition will take some time to become fully implemented.

#### Lands Unsuitable for Mining and Exemption Decision

In 1998, Ohio issued a decision on two petitions to deem land unsuitable for mining in and around Dysart Woods, an old-growth forest in Belmont County. This decision was appealed by both industry and environmental groups. A hearing on these appeals has not been held, pending appeals on a related issue. This issue is a request from a mining company that mining rights on property owned by this company within the petition area be exempt from the lands unsuitable process because of substantial legal and financial commitments by this company prior to January 4, 1977. Since Ohio determined that the area was suitable for underground mining of the Meigs Creek and Pittsburgh coal seams (mining rights owned by the mining company requesting the exemption), Ohio determined that the need to issue a decision on the request for exemption was moot. On appeal, the Ohio Reclamation Commission ordered Ohio to make a decision on this exemption request. Ohio decided that the mining company had made substantial legal and financial commitments in property within the petition area prior to January 4, 1977, and is, therefore, exempt from the lands unsuitable designation. This decision has been appealed, with a hearing scheduled later in 2000.

#### Riviera Bowling Lanes Decision

The Ohio Seventh District Court of Appeals affirmed a lower court ruling ordering Ohio to purchase the Riviera Bowling Lanes. The Ohio Supreme Court decided not to hear Ohio's appeal. Ohio is considering asking the Supreme Court to reconsider the case. This case is based on the plaintiff's claim that Ohio caused the closure of the Riviera Bowling Lanes from 1985 to the present due to mine gas contamination. The City of Bellaire issued an order for the owners to repair or demolish the building in 1985. Due to the forced closure and lapse of time, the Courts ruled that the plaintiffs have been denied any economic use of the property. The Courts ruled that Ohio caused closure of the building by not correcting the condition caused by an abandoned mine. Although there are conflicting facts about the site conditions and whether a closure order was issued, the Court sided with the plaintiffs and ordered Ohio to purchase the property. Also at

conflict is the value of the property. This issue will be decided through an appropriation hearing. The plaintiffs claim, based on an appraisal, the value of the property was \$1,805,000 before the property was vacated. In addition, the plaintiffs seek \$2,034,168 in interest, \$125,000 in attorney's fees, and \$1,925,000 in lost profits. Aside from the potential monetary impact on Ohio's AML program, the extent of responsibility for the government to correct problems associated with AML comes into question as a result of this decision.

### Appalachian Clean Streams Initiative (ACSI)

Ohio continues to actively participate in this initiative. Ohio continues to support and encourage local watershed groups who want to partner with various government agencies, industry, and others who have an interest in abating acid mine drainage (AMD). This year's activities are reported by watershed as follows:

Monday Creek The Monday Creek Restoration Project continues to be Ohio's most active and well-organized watershed group involved in AMD abatement. The Majestic Subsidence project, involving sealing a stream subsidence into an underground mine, was completed in the December of 1999. Some additional rip rapping of the reclaimed channel will also be done in the coming year. The group received an AMD&ART grant from OSM for a passive treatment project at the Murray City ballfield. The group also has partnered with the U.S. Army Corps of Engineers (ACOE) on a long-term feasibility study of the watershed.

However, in spite of the progress made, the group has encountered a major difficulty. One of the primary partners in the group is the U.S. Forest Service (USFS), which owns about 38 percent of the entire watershed, and closer to 70 percent in the areas with AMD problems. The USFS determined that because AMD contains sulfuric acid it is, by definition, a hazardous waste. As such, it is subject to the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), which requires the U.S. government to seek out Principle Responsible Parties (PRP's) prior to proceeding with a project. This has delayed the Rock Run 24 Cooperative Agreement project that was approved by OSM last year. The project design was completed in May, but the PRP search has still not been finalized. Until this is done, the project cannot proceed. Hopefully, the USFS will reverse its policy of applying CERCLA to AMD projects. However, until it does there may be many more delays in the future.

Sunday Creek Sunday Creek is similar in size to Monday Creek and is adjacent to Monday Creek along the southeast side of the Monday Creek basin. Sunday Creek also has severe impacts due to AMD. The Sunday Creek Watershed Group is a new group that is progressing at a rapid pace. They have applied for and received an Ohio EPA 319 two-year planning grant. The group has also begun monitoring in the watershed in order to draft an acid-mine drainage treatment and abatement plan (AMDAT) and receive hydrologic unit approval from OSM.

Raccoon Creek The Raccoon Creek Improvement Committee (RCIC) also continues to be active in the AMD abatement area. Last year the Natural Resource Conservation Service (NRCS) completed a design for the State Route 124 Strip Pit project, a 10-acre pit and spoil area

contributing AMD to Raccoon Creek. Construction started on October 12, 1999 and was completed this year. Another nearby project, the State Route 124 Seep project, has also been designed, bid, and contracted. Construction of this project will eliminate 3 to 4 percent of the acid loading to Little Raccoon Creek. Construction should begin this October. The group also received OSM approval for the Little Raccoon Creek hydrologic unit under the AMD Set-Aside program. Work on the headwaters AMDAT is proceeding well. In all likelihood, it should be Ohio's next approved hydrologic unit for AMD Set-Aside funding. RCIC has continued to increase public awareness of the AMD problem through activities such as watershed tours and voluntary tree planting on mine sites.

Huff Run The Huff Run Watershed Restoration Partnership (HRWRP) is working with the Crossroads Resource Conservation and Development Council (RC&D) of the NRCS. They received an Ohio EPA 319 grant to fund several projects in partnership with the group and Ohio. Several of these projects have been identified in the hydrologic unit characterization that was approved by OSM this year. OSM is also helping Ohio design one of the projects. The Southside Tipple Project was bid and constructed this year. It will have a passive treatment system installed using 319 funding. The projects that were proposed last year in cooperation with a local mining company are also nearing final negotiations. HRWRP once again hosted a student intern provided by OSM this year.

Moxahala Creek Ohio University's characterization of this watershed, with its focus on the Black Fork tributary, continued this year. They are monitoring an existing wetland treatment system and analyzing it for potential improvements. They are also studying a burning gob pile to determine the best reclamation approach. The Moxahala Watershed Restoration Committee received a grant from Rivernet to write an action plan. They have completed the preliminary action plan.

Wills Creek Crossroads RC&D continues to be involved with organizing activities for this watershed. They are working with Ohio and the U.S. Army Corps of Engineers (ACOE) on AMD abatement strategies in and around the Wills Creek Reservoir. Ohio has partnered with the ACOE for an AMD abatement project using ACSI funds. The design of this project is complete, and construction should occur with the next year. Ohio also plans to do corrective work on the passive wetland treatment system at the former Wills Creek Tipple project.

Kimble Creek The interagency group formed to abate AMD has not decided on an abatement approach. The USFS has hired a consultant to conduct further studies to determine abatement strategies.

Captina Creek The Captina Creek project was completed in the spring of 2000, but required additional work to improve project effectiveness. The initial project work involved construction of a polishing pond and the installation of limestone ditches. Because some iron was escaping from the final discharge due to lack of settling time, Ohio cleaned out the two primary ponds to increase retention times. This extra work, completed in September of 2000, appears to be successful at this time.

Yellow Creek The Yellow Creek Watershed Restoration Committee meets regularly, and has begun to assess the water quality in their watershed. The group was aided in this endeavor by an OSM summer intern, who also worked with the Huff Run group. Ohio and the ACOE have entered into a cost-sharing agreement to abate a significant AMD problem on the North Fork of Yellow Creek near the Village of Hammondsville. This discharge also adversely affects the main stem of Yellow Creek. The preliminary restoration plan has been completed, and the project study plan has begun. OSM is also assisting the Ohio Division of Wildlife in determining an abatement approach for an AMD discharge in the Brush Creek tributary.

Leading Creek Improvement Committee This is a multi-agency committee formed to implement the Leading Creek Improvement Plan which was drafted as a mitigative measure for a 1993 acid water discharge by Southern Ohio Coal Company. In addition to the plan, an interest-bearing fund was established using a \$1.9 million settlement. This fund will finance improvement projects in target areas identified in the plan. There are several tributaries with AML sedimentation and AMD problems in the Leading Creek basin. The committee met twice during the evaluation period.

### Seasonal Variations

In 1997, in conjunction with industry representatives and OSM, Ohio created a workgroup to examine and develop recommendations regarding standards for submission and analysis of seasonal hydrologic information. This workgroup reviewed existing Ohio practices regarding hydrologic seasonal variations as they apply to obtaining a surface coal mine permit.

The workgroup developed several proposed sampling schemes to establish variations based on historic water information. Input from OSM's Appalachian Regional Coordinating Center helped the group refine the proposal and draft a new method for collecting pre-mining water information.

The workgroup prepared its draft report in 1999, with fifteen recommendations for modifying the procedures for collecting samples to describe seasonal variation. The recommendations address procedures for sampling on regular permits, as well as permits requesting modified effluent limits on remaining sites. The primary recommendations from the workgroup are to:

- \* □ identify periods of high, intermediate, and low flow;
- \* □ require a sample from each period to describe the seasonal variation; and
- \* □ identify procedures to allow data from substitute sampling points for missing data.

The workgroup completed its final report in November 1999. They prepared a draft Policy Procedures Directive (PPD) implementing the recommendations from the final report. Ohio expects to release the draft PPD in late 2000 with implementation in mid-2001.

### Proposed Experimental Practice

Ohio and OSM are currently reviewing a proposed experimental practice submitted by Peabody Coal Company. The experimental practice proposes an exception to Ohio Administrative Code (OAC) 1501:13-9-09 and Federal rules at 30 CFR 817.84. These rules say that structures constructed of or impounding coal waste cannot retain the ability to impound water as part of the approved post-mining land use. The proposal would allow a structure that is impounding coal slurry to remain as a permanent water impoundment in support of a fish and wildlife land use in lieu of removal of the structure. Although the impoundment contains coal slurry, it was not filled with coal slurry as initially planned. Therefore, the structure primarily impounds water that inundates the coal slurry. Ohio and OSM are currently considering the proposal to determine if it is a viable experimental practice that meets all of the requirements of OAC 1501:13-4-12(B) and 30 CFR 785.13.

### Public Roads

Ohio developed written guidelines for staff and industry when considering whether a public road must be permitted as a surface coal mining operation. The guidelines help implement changes in law adopted by Ohio in 1995. The change was based upon a U.S. District Court for the District of Columbia decision that Federal rules cannot exempt all public roads used for coal mining purposes from the requirement to obtain a mining permit. The determination of whether the road must be permitted must be based upon use of the road. Ohio's guidelines provide guidance on making the usage determination.

### Natural Stream Reconstruction Design

Ohio organized a team comprised of representatives from the coal mining industry, Division of Soil and Water Conservation, Division of Mineral Resources Management, and the Ohio Environmental Protection Agency to develop an alternative to stream channel designs traditionally used by the mining industry. The team recognized the need to develop stream restoration designs that would help mitigate the temporary impacts to stream channels caused by mining. The team developed a functional design procedure for the reconstruction of small headwater streams based on natural channel design techniques. When impacts to a natural waterway are unavoidable, the natural stream channel design process provides more ecologically healthy alternatives that are intended to improve the stream's potential to support aquatic life. The team plans to monitor the success of these design techniques and make modifications to the designs where appropriate.

### Wildlife Provisions of the Ohio Program

Last year OSM conducted a follow-up review of a 1995 OSM study on wildlife enhancement. The 1995 study showed that Ohio mining permits were not describing wildlife resources, or providing an explanation of why certain enhancements were not used, as required by Ohio's rules. Ohio has taken several actions to improve awareness of wildlife provisions and concerns. Ohio implemented a new land use form that provides landowners a statement-of-interest

checklist for various wildlife enhancements. This will help determine which enhancements are practical, and may help in getting more enhancements implemented in the field. Ohio developed written guidelines for staff and industry regarding permitting and mitigation of non-jurisdictional wetlands. Members of Ohio's permitting staff were trained in Stream Quality Monitoring Techniques and High Quality Wetlands. Ohio has fully implemented into the permitting process, its stream buffer zone policy that was issued in late 1998. The policy addresses environmental resources of streams and stream restoration, including riparian vegetation. Implementation of this policy combined with the natural stream reconstruction design program should enhance wildlife in and around streams.

### Reforestation Initiative

Ohio worked with Waterloo Coal Company to develop changes to its resoiling plan to better promote tree growth and survival. These changes were in response to the landowner's (Mead Paper Company) concern that reclaimed land is too compacted and does not support tree growth necessary to support the intended post-mining land use on their properties. Under its revised plan, the mining company placed a three to four foot mixture of A, B, and C soil horizons on graded areas. This mixture was placed with end-dump trucks and only lightly graded to minimize soil compaction. Approximately five acres were planted with trees and a less competitive herbaceous cover in the spring of 2000.

This technique has been used successfully in Virginia. Waterloo Coal Company is the first operator in Ohio to try using it. Ohio, Waterloo, and Mead will monitor the success of this soil handling practice with the hope that tree growth and survival will meet or exceed that on undisturbed areas.

Another noteworthy event regarding the reforestation initiative was a ceremony commemorating American Electric Power's (AEP) planting of its 15 millionth tree as part of its Climate Challenge Tree Planting Program.

Ohio and OSM representatives attended this ceremony which led to a follow up meeting with AEP representatives. The purpose of the meeting and site tour was to develop new ways that OSM and States may partner with companies such as AEP to encourage other utilities and private industries to plant trees on AML areas. Ohio has already partnered with AEP for tree planting on a few AML areas. Ohio also showcased its successful Pt tree inoculation program that provides acid-tolerant tree



Trees on pre-SMCRA reclaimed mine spoil in Morgan County

seedlings for reforestation of highly acid mine spoil conditions. The overall objective is to increase reforestation on AML areas at little or no cost to the government and for the private entity to receive credit under the Department of Energy's carbon sequestration program. OSM has signed a memorandum of understanding with the Department of Energy to help further this concept.

### Blasting Near Interstate Highway

OSM raised a concern about a mining permit issued by Ohio that included blasting within 200 feet, above grade, and for several thousand feet along a major interstate highway during the life of the permit. OSM questioned whether the blasting plan provided adequate safeguards to protect motorists traveling on the highway during blasting operations. Ohio promptly acknowledged OSM's concerns by working with the permittee, their blasting consultant, an OSM blasting expert, and the Ohio Highway Patrol to incorporate improvements and safeguards into the blasting plan. Ohio decided that the measures that were added to the blasting plan provided adequate safeguards so that traffic flow would not have to be stopped for each blast unless under specific circumstances as determined by the certified blaster and certified mine foreman.

### Landslides

In the EY 96 evaluation period, OSM evaluated the effectiveness of landslide repair on Ohio permits. Ohio reviewed the study report and agreed with the finding and recommendation. The report recommended that Ohio establish guidelines for landslide stabilization and repair. Ohio distributed the guidelines in February 2000. These guidelines, developed with input from OSM, address the findings and recommendations contained in the OSM EY96 evaluation.

## **B. Program Issues**

### Inspection Management

OSM renewed its concern raised in 1996 and 1997 about Ohio's management of its inspection program. OSM identified a significantly declining trend in the number of inspections that Ohio was conducting compared to the number that were required. OSM formally notified Ohio of this concern in October 1999, and asked for Ohio's perspective and their plans to correct the trend. A team of Ohio's managers evaluated the concerns identified by OSM. One result of the review was the reassignment of some management responsibilities to provide closer attention to the inspection program through scheduling, routine reporting, and monitoring of inspection activities. A priority was assigned to enhancing the data system used for tracking inspections. Reporting capabilities of the data system were improved to provide timely electronic management reports to the field team managers. The system improvements provided a more user-friendly system and raised the confidence level of the users. An inspector vacancy was filled. Ohio reiterated to staff their responsibility to take necessary action to require operators to achieve bond release as contemporaneously as practicable. Ohio also took advantage of the

program provisions related to required inspections on abandoned sites and designated several bond forfeiture sites as abandoned.

Ohio has provided the improved quarterly management reports to OSM since October 1999. These reports indicate improvement in the number of sites that are receiving the required number of inspections. The report format is significantly improved and now can be used as a management tool. Ohio reports an overall average of sites receiving the required number of inspections as: 89 percent in the fourth quarter 1999; 91 percent in the first quarter 2000, 94 percent in the second quarter 2000, and 94 percent in the third quarter 2000. One of the two districts has reported 98 percent for three out of four quarters. The other district is continuing to increase the number of inspections conducted.

OSM will continue to review the quarterly management reports as well as conduct some independent review of the number of inspections conducted.

#### Data Management

Ohio has directed significant effort to developing, updating, and maintaining data management systems. They have developed systems for permitting, bonding, inspections, contract management, hydrology, and other areas. Ohio continues to experience difficulties with full and effective implementation of some of the systems. These difficulties span many aspects of their regulatory and AML programs and impact Ohio's management of several program areas. Ohio is continuously working on development, revision, and correction of these systems to improve reporting capability. Better reporting capability can help Ohio manage daily and long-range workloads and provide reliable information to reflect program activities and results.

OSM acknowledges Ohio's efforts to improve data systems and will continue to encourage Ohio's use of data systems to improve productivity, efficiency, and to better identify program accomplishments. The reorganization of DMRM to include the former Oil and Gas Division increased the staff of the data management staff. OSM is hopeful that the increased staff will improve many of the existing systems by providing resources to deal with implementation problems.

#### AMD Prevention

As a regional objective, OSM began a process to establish long-term treatment costs for AMD problems from post-1977 mine sites in EY 1999. As part of that process, a regional AMD inventory was established that included active and bond forfeited sites with actual and potential long-term treatment liabilities. A preliminary inventory developed by OSM and Ohio contained potential AMD-producing sites, including sites that are being actively mined and treating AMD, and those that are reclaimed but have a remaining AMD discharge.



This year OSM continued to verify conditions on the sites on the preliminary inventory through site inspections. Water samples and flow measurements were taken to better characterize the extent of the AMD problem. Twenty-one sites were classified as having probable long-term AMD problems. The 21 sites have been added to OSM's Regional AMD inventory. Of the 21 sites, 13 are associated with coal refuse disposal, five involve abandoned underground mine drainage, and three are caused by toxic materials in surface mines. Thirty-six other sites had indications that AMD production could potentially become a problem in the future.



Sampling of potential AMD source from a mine in Vinton County

During the upcoming evaluation year, OSM will continue to evaluate these sites in addition to any new sites found during normal routine oversight inspections. Ohio has not totally endorsed the list of sites. However, OSM will continue to work with Ohio to refine the site inventory and develop strategies for abating and/or treating sources of AMD on these sites.

#### Program Amendment 75

In 1998, OSM approved proposed revisions to the Ohio Revised Code concerning award of attorney fees. This issue has been a long-standing legal issue with the Ohio Program. OSM expected that Ohio would have a sponsor to introduce this revision, along

with other statutory changes, to the Ohio Legislature during 2000. The proposed revisions have not been introduced. Ohio is considering attaching this revision to some other statutory changes being considered by the Department of Natural Resources.

#### Program Amendment 76

In 1997, OSM notified Ohio of Federal rule changes that have occurred over the past several years. The provisions affecting Ohio include: permitting and performance standards on siltation structures and impoundments; variances from approximate original contour; prime farmland; and affirmation by the applicant that reclamation requirements are met when applying for bond release. Ohio submitted a program amendment to address these provisions in late 1997. OSM approved the amendment in late 1998. Ohio promulgated some of the rules approved under the amendment in 1999, but has not yet adopted the rules concerning siltation structures, impoundments, and bond release affirmation. Ohio did contact the industry group that opposed

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promulgation of the rules and is attempting to work out a solution following OSM's inquiry asking for Ohio to provide its plan and schedule for promulgation.

## V. Success in Achieving the Purposes of SMCRA as Measured by the Number of Observed Off-Site Impacts and the Number of Acres Meeting the Performance Standards at the Time of Bond Release

To further the concept of reporting end results, OSM is collecting the findings from performance standard evaluations for a national perspective in terms of the number and extent of observed off-site impacts and the number of mined and reclaimed acres that meet the bond release requirements for the various phases of reclamation. Individual topic reports that provide additional details on how OSM conducted the following evaluations and measurements are available in the Columbus OSM Office.

### A. Off-Site Impacts

During the EY 2000 evaluation period, OSM collected information on the number, type, and severity of off-site impacts resulting from mining operations. OSM used this information as a measure of how well the Ohio mining program protects the environment and the public residing in areas adjacent to mining operations. The goal of this measurement is for States and OSM to reduce the occurrence of off-site impacts. OSM identified off-site impacts by reviewing Ohio enforcement actions resulting from all of Ohio's inspections; by reviewing citizen complaints received by Ohio and OSM; and by conducting oversight inspections that focused on identification and evaluation of impacts that occurred outside the areas authorized for mining and reclamation activities.

OSM considered both Ohio's inspections on 463 inspectable units and OSM's oversight inspections as data sources for identifying 43 off-site impacts during the evaluation period. Approximately 90 percent of the mine sites in Ohio had no identified off-site impacts based on the sources of data identified above. OSM classified three of the 43 impacts as major, nine moderate, and 31 minor using the guidance provided in OSM Directive REG-8.

- \* □ The three major impacts were related to well water and wetland loss and degradation.
- \* □ Twenty-three of the impacts affected surface water resources, with acid water discharges the most prevalent.
- \* □ Eight of the 43 impacts were encroachments of mining activities onto areas outside of the approved permit area.
- \* □ The remaining incidents were related to miscellaneous disturbances such as sedimentation.

Table 4 provides a distribution of the types of impacts and the affected resources.

The off-site impact data shows that the majority of impacts are water-related. Ohio and OSM have focused on hydrology issues and will continue to pursue improvements to the Ohio program to reduce the number of water-related off-site impacts. This initiative continues to be directed

through the efforts of the AMD Prevention Team and Ohio's efforts to improve their investigation of water complaints.

## **B. Bond Release/Reclamation Success**

OSM reviewed Ohio's approval of bond releases as one measure of success in administering the SMCRA program. Between July 1, 1999, and June 30, 2000, OSM conducted on-site inspections on 60 reclamation segments on which Ohio had approved bond release. In addition, OSM collected information about contemporaneous reclamation, remaining, land use, and hydrology on most oversight inspections. Table 5 in the Appendix tabulates information on bond releases processed by Ohio during the review period.

OSM oversight found that Ohio's evaluation of industry's compliance with the on-the-ground performance standards for bond release is effective. However, OSM inspections identified five individual reclamation segments on two permits that did not meet bond release or performance standards even though Ohio approved bond release on each of these segments. Following OSM's identification of the problems, Ohio required the permittee to correct them. The problems identified were improper filling of a small stream and wetland, erosion, and not meeting the required revegetation requirements.

Although OSM oversight inspections did not identify any sites where material damage to the hydrologic balance could be demonstrated, Ohio and OSM need to continue to improve the process used for determining whether mining operations have minimized impacts to the hydrologic balance prior to final approval of bond release. Ohio has developed a hydrology database. However, as reported last year, Ohio has not yet fully implemented the system to aid their evaluation of hydrologic impacts at mine sites. Ohio is continuing to develop guidelines and procedures that will improve their hydrologic assessment of sites at bond release.

Overall, OSM oversight data collected at reclaimed mine sites shows that on-the-ground reclamation meets or exceeds performance standards in nearly all cases. Mined land is restored to productive use, with over 90 percent of the mined land restored to pasture/grazing land. Hay production generally exceeds the county average. About 77 percent of the permitted land is approved for a different post-mining land use than existed before mining. The vast



**Permanent pond on a reclaimed mine in Tuscarawas County**

majority (81 percent) of the premining land use is designated as undeveloped. About 4 percent is returned to an undeveloped land use with 91 percent restored to a pasture/grazing land use. Less than 2 percent is returned to forest or fish and wildlife habitat.

OSM also evaluated Ohio's implementation of contemporaneous reclamation provisions as a measure of how timely mined land is returned to the landowner for implementing a post-mining land use, one of the purposes of SMCRA. The time frames are based upon the time between an area being designated for reclamation by the permittee and the time the permittee requested bond release on that area for the bond releases Ohio approved between July 1, 1999, and June 30, 2000. Information on contemporaneous reclamation showed a wide range of reclamation/bond release time frames on 365 bond releases containing 16,056 acres approved by Ohio. The average time frames have improved from the previous year.

- " Time frames for completion of Phase I reclamation averaged 1.2 years on the 73 Phase I bond releases approved by Ohio. This average improved from 1.9 years during the last review period.
- " Time frames for completion of Phase II reclamation averaged 3.8 years on the 113 Phase II bond releases approved by Ohio. This average also improved from 3.9 years last year.
- " Time frames for completion of Phase III reclamation averaged 6.5 years on the 179 Phase III bond releases approved by Ohio. This average remained the same as last year.

During the past four years, Ohio has been working to reduce the number of sites where mining has been completed for more than two years and the site has not achieved a Phase II bond release. Ohio reduced the number of permits in this condition by over 60 percent between August of 1996 and August of 1999. In August 1999, 45 permits existed that had not yet achieved a Phase II bond release, although mining had been completed for more than two years. As of August 2000, there are 35 permits meeting this criteria. Ohio has also directed efforts on achieving Phase III bond release on sites where mining has been complete for more than six years.

## VI. OSM ASSISTANCE

During the evaluation period, OSM provided assistance to Ohio on different initiatives. The purpose of this assistance was to help Ohio more efficiently implement their program. Both OSM and Ohio found that working together cooperatively on teams to resolve problems has been positive and successful. Listed below are brief descriptions of the specific areas where OSM assisted Ohio this year.

### ARP Permitting Team

In EY 96, Ohio implemented changes to the ARP (Application to Revise a Permit) process after a team was assigned to the process. The ARP team included representatives from Ohio, OSM, and industry. The purpose of the ARP team was to improve the processing time of ARP s while ensuring completeness, regulatory compliance, and tracking of individual ARP s. One of the major changes to the revision process was to move the processing and tracking of revisions from the central office to the field regional offices.

In EY98, Ohio re-evaluated the ARP process and determined that the revised process was no longer effective and practical for the current organization of the agency. Therefore, Ohio is shifting the responsibility of this process back to the central office. This change should be finalized early in EY01.

### Remining Initiative

OSM continued as a member of Ohio s Remining Committee. The committee has an active representative on a national remining committee that is working with EPA concerning water quality issues related to remining. Ohio provided extensive comments on U.S. EPA s proposed water quality standards for remining sites.

OSM inspections on 67 permits this year found that remining resulted in or is proposed to result in elimination of about 85 miles of abandoned highwalls, reclamation of about 2500 acres of unreclaimed mine spoil, and elimination of about 50 underground mine openings or entries.

### Technical Assistance to Ohio

OSM helped Ohio investigate the cause of two landslides. One site was in Belmont County and the second site was in Harrison County. OSM reviewed inclinometer data that Ohio collected and provided an opinion on the cause of the ground movement. Ohio considered OSM s input in making a final determination on the eligibility of each project for AML funding.

As a result of Ohio s request for assistance, Ohio, the Department of Transportation, and OSM jointly developed a training course on using inclinometers including: theory of operation, installation, reading, and interpretation of data. This course will be presented in November 2000.

The objective of this training is to provide standard guidelines on operation and interpretation of inclinometers.

## VII. General Oversight Topic Reviews

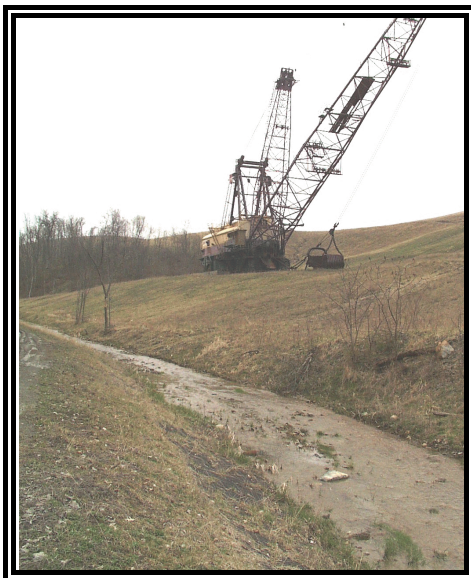
### OSM Oversight Inspections

OSM conducted 83 inspections for general compliance monitoring of coal mine operations during the evaluation period to assess compliance with performance standards; 40 inspections to evaluate bond releases approved by Ohio; 44 inspections to verify sites with potential for AMD; and 28 other mine site visits associated with special studies or for other reasons. Most of these inspections included an evaluation for possible off-site impacts. In addition, OSM conducted 37 inspections to monitor AML reclamation project construction and eight inspections to evaluate potential AML emergencies or to monitor AML emergency project construction.

OSM conducts general compliance monitoring oversight inspections to learn how well Ohio is implementing its program by reviewing the on-the-ground impacts of mining operations. Other inspections are directed at very specific program areas such as bond releases or special oversight studies. Of the total 195 regulatory inspections conducted by OSM on 163 different mine sites during this evaluation period, 73 percent of the sites were in compliance with the standards



**Inactive underground mine site in Monroe County**



**Reclaimed area around idle dragline in Jefferson county**

reviewed by OSM and 27 percent were in noncompliance with one or more standards. In all instances, Ohio either had taken or took appropriate enforcement or other action to address the noncompliance.

OSM inspections identified some difficult issues related to contemporaneous reclamation, removal of structures and equipment, and hydrologic impacts. OSM has worked closely with Ohio to encourage them to direct mining companies toward timely and complete reclamation of a few mines that have not operated for several years. Hydrology issues regarding AMD and impacts to water supplies continue to be the cause of most off-site impacts. OSM inspections also identified



improper bond releases on two sites. One issue related to stability of a backfilled area that was identified in 1998 continues unresolved, partially due to an appeal filed by the coal company. The issues identified on OSM inspections have led Ohio to development of remediation strategies directed toward compliance.

Citizen inquiries or complaints to OSM identified some instances of misunderstanding or lack of communication between citizens, the mine operator, and Ohio. In these situations, OSM either formally transmitted the complaint to Ohio or determined through meeting with the citizen that their concern was not a violation. During the meeting or through follow-up review of the situation, OSM was able to provide the citizen with a better understanding of the situation and why the coal company was or was not responsible.

The results of OSM inspections related to OSM special studies concerning bond release, contemporaneous reclamation, and off-site impacts are further discussed under separate topics elsewhere in this report.

### Longwall Mining

OSM completed its review of the effects of longwall mining. The draft report is in the public review and comment period. Information about the overall impacts of longwall mining in Ohio was not readily available. Therefore, OSM's purpose of the initiative was to obtain a better overall understanding of the short and long-term impacts that longwall mining has on water supplies, land, and structures; how the mining industry and Ohio implement the program requirements and mitigate the impacts of longwall mining; and how effectively Ohio and the mining industry interact with those affected by longwall mining. OSM interviewed Ohio inspectors and managers, mining company officials, and landowners. OSM conducted field visits on areas impacted by longwall mining.

Once public comments are reviewed, OSM will meet with Ohio to discuss the report and document any action Ohio plans in response to OSM's recommendations in the final report. OSM expects to issue the final report early in EY 2001.

### Response to Blasting Complaints

As identified in the 1999 Evaluation Report, OSM initiated a review that evaluated the effectiveness and timeliness of Ohio's process for investigating blasting complaints, including the use of pre-blast surveys to evaluate alleged blasting damages. OSM reviewed 35 blasting complaints received by Ohio during the evaluation period and the response to each complaint. OSM also accompanied Ohio's Blasting Specialist during investigation of two blasting complaints to determine how he considers the pre-blast survey in his evaluation of alleged damage. OSM completed the review during the 2000 evaluation period.

The review found that Ohio's investigations of blasting complaints are timely and thorough, and their findings are well documented. Ohio's responses to the complainants are timely, with

periodic updates occurring if there is a delay in the investigation. Pre-blast surveys are an effective tool to document the pre-existing conditions of the dwellings. Ohio effectively uses them to determine if blasting is causing any additional damage. Of the 27 residences that were eligible to receive a pre-blast survey, only 12 requested one. OSM suggested that this might be an area where Ohio could improve their outreach program to ensure that more landowners are aware of the usefulness and the purpose of pre-blast surveys.

### Coal Waste Disposal

Disposal of coal-processing waste occurs on approximately 10 percent of the permits in Ohio. The permitting requirement to receive approval for coal-processing waste disposal relies primarily on isolating the refuse material to prevent contact with water. This method minimizes impacts to the water regime. In addition to isolation, Ohio permits the mixing of coal processing wastes with materials with high calcium carbonate. The high calcium material reacts with and neutralizes the acidic properties of the coal-processing waste material to cause no net discharge of acidic water. These two techniques offer the viable technologies for disposing of coal-processing waste material.

This study, begun in 1999, is designed to assess the effectiveness of permitting requirements for the implementation of approved plans and monitoring the environmental impacts of the disposal of coal-processing waste at surface coal mining operations. Specifically, this study is collecting data to answer the following questions:

- " Are impacts to the hydrologic regime minimized on permits with approved coal-processing waste disposal plans?
- " How effectively are the industry and DMR monitoring plans for assessing impacts to the hydrologic regime from coal-processing waste disposal areas?
- " Do permits allowing coal-processing waste disposal comply with the laws, rules, and policy authorizing these activities?
- " Are specific methods of coal-processing waste disposal more effective at minimizing impacts to the hydrologic regime?

During this evaluation period, OSM completed the data collection portion of the study and is now developing the final report. The data collection consisted of conducting interviews with DMR's permitting staff, hydrologists, and engineers to determine the permitting requirements and how those requirements are assessed during the permit approval process. Interviews were also conducted with the inspection staff to obtain input on implementation issues associated with various coal waste disposal methods.

In addition, OSM conducted 23 field reviews on permits approved for refuse disposal. Approximately one-third of the field reviews examined post-reclamation impacts of refuse disposal. An additional one-fifth of the field reviews were on sites with active disposal activities. OSM cannot currently make any recommendations to Ohio for any changes to the current

procedures for permitting or implementing refuse disposal plans, but the final report will include recommendations on both of these areas.

### AML Construction Program

OSM reviewed Ohio's non-emergency AML construction processes for productivity and timeliness as compared to the previous year. OSM did this by maintaining a project database and performing routine AML oversight inspections. The results of these oversight activities are as follows:

- " National Environmental Policy Act (NEPA) Compliance - Ohio submitted all necessary NEPA documentation in a timely manner prior to the initiation of construction activities. There have been several instances where projects were bid prior to receiving the Authorization to Proceed (ATP). However, Ohio's AML Construction Manager has made sure that no construction occurs prior to receiving the ATP. OSM is working with Ohio so that NEPA documentation occurs earlier in the process to ensure that no construction occurs prior to the ATP and that there is ample time to consider alternatives. OSM authorized 19 projects during the review period as having met the requirements of NEPA. Site inspections on AML projects verified the site conditions and mitigation procedures that were listed in Ohio's NEPA documentation.
- " Design Productivity and Timeliness - Over the last ten years, Ohio has averaged 25 design completions per year, with a range of 45 to 14. Ohio completed 19 designs during this evaluation period, as opposed to 20 completed during the previous year. The majority of the designs were done by private consulting firms. Design completions continue to be a significant limiting factor on the productivity of Ohio's AML program.
- " Construction Contracting - The average amount contracted over the last ten years by Ohio is \$2.7 million per year, with a range of \$5.8 million to \$1.1 million. Ohio authorized 20 construction contracts at an amount of \$1.4 million during this evaluation period, compared to 24 projects at an amount of \$2.3 million during last year's period. While the amount of contract activity is roughly the same for both periods, the timeliness of issuing contracts greatly improved during this evaluation period. For 1998, it took an average of 106 days from the bid opening to contract authorization. In 1999, this average improved to 74 days. This year, the average improved to 48 days, which is within the 60-day period allowed by Ohio's contracting law. Contracts exceeding the 60-day period may be renegotiated unless extensions are mutually agreed to. Of the 20 projects authorized this year, only four exceeded the 60-day period. We commend Ohio for this significant improvement.
- " Construction Completions - Over the last ten years, Ohio has averaged 27 project completions annually, with a range of 38 to 21 projects. There were 24 projects substantially completed during this review period compared to 23 projects the previous period. There were no significant delays due to contractor negligence or non-

performance, nor were there any significant delays due to cost overruns or design changes.

In an effort to better understand Ohio's AML processes and to identify areas for improvement, OSM worked with Ohio to develop a flowchart of the AML program as the processes currently exist. OSM and Ohio identified and agreed on critical dates within these processes. OSM then conducted file reviews on completed projects, finding long delays between receiving complaints and beginning construction projects. Even though there are instances where reasons for this long time period are justified, such as potential reming or a change in landowners, many of these long periods lack a suitable explanation. Ohio and OSM agreed to a pilot oversight study where OSM would assist with a project's planning and design, using Ohio's procedures, in order to better understand the process involved. A relatively simple project was chosen. Initial meetings and site reviews are finished, and OSM is now in the process of developing the plans and specifications.

#### Permit Findings

In March of 1999, the U.S. District Court, Southern District of West Virginia issued a decision in *Bragg v. Robertson* (Civil Action No. 2L98-0636). In that decision, the judge was critical of the lack of documentation supporting West Virginia's written findings to support its decision to issue a permit. OSM's Director asked each field office to discuss the implications of this decision with the States.

OSM conducted an oversight study in Ohio that focused on the following questions related to the findings necessary to approve permit applications, renewals, and transfers in Ohio:

- \*  How does Ohio document that permit applications, permit renewals, and permit transfers meet all of the requirements of Ohio Administrative Code (OAC) 1501:13-5-01(E)?
- \*  How does Ohio document its review and decision on areas of the permit application that are not specifically listed under the required findings of OAC 1501:13-5-01(E)?
- \*  Are Ohio's findings reasonably supported by technical and/or other information or reference to such information? Is the information in the administrative file?

OSM's review found that Ohio completes written findings for most required permitting actions. Ohio's permit files generally include extensive checklists, notes, technical reviews, and revision letters and responses that support decisions to approve permit applications. Ohio's written findings for all permitting actions should provide better written descriptions, references, and documentation to support its permitting decisions. Based upon this review, Ohio has already

initiated revisions to its process and their templates to improve their written findings. OSM expects to complete the final report on this study in early EY 2001.

### OSM Stream Impact Study

OSM compiled a report from data supplied by the Ohio EPA and the Central Ohio Coal Company on stream impacts resulting from a large area mine. OSM became aware that the Ohio EPA was doing long-term monitoring in two tributary streams that were almost completely affected by post-SMCRA mining. This presented a unique opportunity to look at the long-term effects downstream from a mining operation over a 12-year period. The Ohio EPA data consisted of water chemistry, fish, and macro-invertebrate sampling. Habitat assessments were also done. This was combined with water chemistry and mining data from the coal company. The data showed that the fish communities in both streams improved over the 12-year period. The macro-invertebrate communities remained constant, and hardness and sulfates increased slightly in the downstream areas. The latter effect on water chemistry was predicted in the cumulative hydrologic impact assessments (CHIA) in the mining permits. The water chemistry impacts noted do not have any adverse effects on any present land uses in the area. Overall, it is remarkable that the stream biology actually improved while the mining and reclamation of the watershed was occurring.

### OSM Part 732 Notices to Ohio

Ohio has one program condition remaining at 30 CFR 935.11 from OSM's 1982 approval of the Ohio permanent regulatory program. Ohio must demonstrate that its Alternative Bonding System (ABS) will ensure timely reclamation at the sites of all operations for which bond has been forfeited. OSM also issued a Part 732 letter to Ohio on this issue on October 1, 1991. The letter notified Ohio that it must revise the Ohio program to ensure that the ABS will have sufficient funds to complete the reclamation plans for any areas in default at any time. An actuarial analysis of Ohio's ABS as of December 31, 1992, found that Ohio's ABS is solvent if certain assumptions are fulfilled. In February 1994, Ohio reported that its ABS continues to have a \$1.5 million deficit. On June 30, 1995, Ohio and OSM updated an Improvement and Monitoring Plan for the Ohio ABS. As reported in the 1998 annual report, Ohio has implemented several changes to resolve this program condition. However, questions about responsibility and bond adequacy for treating acid-mine drainage in the event of forfeiture has become a national issue. Ohio developed a proposal to submit to OSM to address the 732 issue and remove the program condition. However, OSM suggested that Ohio defer submitting their information pending further developments on the national issues related to bonding and AMD. OSM and Ohio will continue to work to resolve this issue including aspects of acid mine drainage treatment that may have an impact on Ohio's program.

In 1997, OSM notified Ohio of Federal rule changes that have occurred over the past several years. The provisions affecting Ohio include: permitting and performance standards on siltation structures and impoundments; variances from approximate original contour; prime farmland; and affirmation by the applicant that reclamation requirements are met when applying for bond

release. Ohio submitted a program amendment to address these provisions in late 1997. OSM approved the amendment in late 1998. Ohio has not yet promulgated some of the rules approved under the amendment concerning siltation structures, impoundments, and bond release affirmation.

OSM notified Ohio on August 22, 2000, of recent changes to Federal regulations pertaining to valid existing rights. OSM asked that Ohio respond to this notice within 60 days by providing proposed amendments or a description of amendments to be proposed and a timetable for enactment. Ohio is preparing its response to this notice.

APPENDIX A**TABLE 1**

<b>COAL PRODUCTION (Millions of short tons)</b>			
<b>Period</b>	<b>Surface mines</b>	<b>Underground mines</b>	<b>Total</b>
Coal production <sup>A</sup> for entire State:			
Annual Period			
1998	13,183,436	15,605,135	28,788,571
1999	12,403,243	12,980,985	25,384,228
2000	10,348,110	11,575,380	21,923,490
	35,934,789	40,161,500	76,096,289

<sup>A</sup> Coal production as reported in this table is the gross tonnage which includes coal that is sold, used or transferred as reported to OSM by each mining company on form OSM-1 line 8(a). Gross tonnage does not provide for a moisture reduction. OSM verifies tonnage reported through routine auditing of mining companies. This production may vary from that reported by States or other sources due to varying methods of determining and reporting coal production.

TABLE 2

INSPECTABLE UNITS As of September 30, 2000													
Coal mines and related facilities	Number and status of permits								Insp. Unit <sup>D</sup>	Permitted acreage <sup>A</sup> (hundreds of acres)			
	Active or temporarily inactive		Inactive		Abandoned		Totals			IP	PP	Total	
	IP	PP	Phase II bond release										
			IP	PP	IP	PP							
<b>STATE and PRIVATE LANDS</b> REGULATORY AUTHORITY: STATE													
Surface mines	241		119		6	38	6	398	404	.25	1077	1077	
Underground mines	14		4				0	18	18		44	44	
Other facilities	28		7		1	5	1	40	41		37	37	
Subtotals	0	283	0	130	7	43	7	456	463	0	1158	1158	
<b>FEDERAL LANDS</b> REGULATORY AUTHORITY: STATE													
Surface mines	2					1	0	3			3.6	4	
Underground mines							0	0				0	
Other facilities							0	0				0	
Subtotals	0	2	0	0	0	1	0	3	0	0	4	4	
<b>ALL LANDS</b> <sup>B</sup>													
Surface mines	0	241	0	119	6	38	6	398	404	0	1,077	1,077	
Underground mines	0	14	0	4	0	0	0	18	18	0	44	44	
Other facilities	0	28	0	7	1	5	1	40	41	0	37	37	
Totals	0	283	0	130	7	43	7	456	463	0	1,158	1,158	
Average number of permits per inspectable unit (excluding exploration sites) . . . . .											1		
Average number of acres per inspectable unit (excluding exploration sites) . . . . .											260		
Number of exploration permits on State and private lands: . . . . .								0	On Federal lands: _____			C	
Number of exploration notices on State and private lands: . . . . .								23	23	On Federal lands: _____			C
<p><b>IP</b>: Initial regulatory program sites.</p> <p><b>PP</b>: Permanent regulatory program sites.</p> <p><sup>A</sup> When a unit is located on more than one type of land, includes only the acreage located on the indicated type of land.</p> <p><sup>B</sup> Numbers of units may not equal the sum of the three preceding categories because a single inspectable unit may include lands in more than one of the preceding categories.</p> <p><sup>C</sup> Includes only exploration activities regulated by the State pursuant to a cooperative agreement with OSM or by OSM pursuant to a Federal lands program. Excludes exploration regulated by the Bureau of Land Management.</p> <p><sup>D</sup> Inspectable Units includes multiple permits that have been grouped together as one unit for inspection frequency purposes by some State programs.</p>													



**TABLE 3**

**STATE PERMITTING ACTIVITY  
As of September 30, 2000**

Type of application	Surface mines			Underground mines			Other facilities			Totals		
	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres <sup>A</sup>	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres
New permits	36	38	3734.8	4	1	0.0	0	2	211.3	40	41	3,946
Renewals	18	23	3753	0	0	0	0	0	0	18	23	3,753
Transfers, sales and assignments of permit rights	8	6								8	6	
Small operator assistance	2	6								2	6	
Exploration permits										0	0	
Exploration notices <sup>B</sup>		23									23	
Revisions (exclusive of incidental boundary revisions)		105									105	
Incidental boundary revisions		51	253.5								51	253.5
Totals	64	252	7,741	4	1	0	0	2	211	68	255	7,953

OPTIONAL - Number of midterm permit reviews completed that are not reported as revisions \_\_\_\_\_

<sup>A</sup> Includes only the number of acres of proposed surface disturbance.

<sup>B</sup> State approval not required. Involves removal of less than 250 tons of coal and does not affect lands designated unsuitable for mining.

**TABLE 4**

<b>OFF-SITE IMPACTS</b>														
<b>DEGREE OF IMPACT</b>		<b>RESOURCES AFFECTED</b>												<b>Total</b>
		<b>People</b>			<b>Land</b>			<b>Water</b>			<b>Structures</b>			
		minor	moderate	major	minor	moderate	major	minor	moderate	major	minor	moderate	major	
TYPE OF IMPACT	Blasting													0
	Land Stability													0
	Hydrology			2	3		2	22	2	3				34
	Encroachment					7								7
	Other				11									11
	<b>Total</b>	0	0	2	14	7	2	22	2	3	0	0	0	52
Total number of inspectable units: <u>413</u>														
Inspectable units free of off-site impacts: <u>370</u>														
<b>OFF-SITE IMPACTS ON BOND FORFEITURE SITES</b>														
<b>DEGREE OF IMPACT</b>		<b>RESOURCES AFFECTED</b>												<b>Total</b>
		<b>People</b>			<b>Land</b>			<b>Water</b>			<b>Structures</b>			
		minor	moderate	major	minor	moderate	major	minor	moderate	major	minor	moderate	major	
TYPE OF IMPACT	Blasting													
	Land Stability													
	Hydrology													
	Encroachment													
	Other													
	<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	
Total number of inspectable units: <u>50</u>														
Inspectable units free of off-site impacts: <b>Bond Forfeiture Sites not evaluated in EY00</b>														

Refer to the report narrative for complete explanation and evaluation of the information provided by this table.



**TABLE 5**

<b>ANNUAL STATE MINING AND RECLAMATION RESULTS</b>		
<b>Bond release phase</b>	<b>Applicable performance standard</b>	<b>Acreage released during this evaluation period</b>
Phase I	* <input type="checkbox"/> Approximate original contour restored * <input type="checkbox"/> Topsoil or approved alternative replaced	2743
Phase II	* <input type="checkbox"/> Surface stability * <input type="checkbox"/> Establishment of vegetation	3118
Phase III	* <input type="checkbox"/> Post-mining land use/productivity restored * <input type="checkbox"/> Successful permanent vegetation * <input type="checkbox"/> Groundwater recharge, quality and quantity restored * <input type="checkbox"/> Surface water quality and quantity restored	7564
	<b>Bonded Acreage Status<sup>A</sup></b>	<b>Acres</b>
	Total number of bonded acres at end of last review period (September 30, 1999) <sup>B</sup>	79893
	Total number of bonded acres during this evaluation year	6079
	Number of acres bonded during this evaluation year that are considered remaining, if available	Not Available
	Number of acres where bond was forfeited during this evaluation year (also report this acreage on Table 7)	582
<p><sup>A</sup> Bonded acreage is considered to approximate and represent the number of acres disturbed by surface coal mining and reclamation operations.</p> <p><sup>B</sup> Bonded acres in this category are those that have not received a Phase III or other final bond release (State maintains jurisdiction).</p>		

**OPTIONAL TABLES 6**

**(Not Included)**

Table 7

<b>STATE BOND FORFEITURE ACTIVITY (Permanent Program Permits)</b>		
<b>Bond Forfeiture Reclamation Activity by SRA</b>	<b>Number of Sites</b>	<b>Acres</b>
Sites with bonds forfeited and collected that were unreclaimed as of September 30, <u>1999</u> (End of previous evaluation year) <sup>A</sup>	22	1916
Sites with bonds forfeited and collected during Evaluation Year <u>2000</u> (Current year)	6	582
Sites with bonds forfeited and collected that were re-permitted during Evaluation Year <u>2000</u> (Current year)	0	0
Sites with bonds forfeited and collected that were reclaimed during Evaluation Year <u>2000</u> (Current year)	4	193
Sites with bonds forfeited and collected that were unreclaimed as of September 30, <u>2000</u> (End of current year)	24	2305
Sites with bonds forfeited but uncollected as of September 30, <u>2000</u> * (End of current year)	0	0
<b>Surety/Other Reclamation (In Lieu of Forfeiture)</b>		
Sites being reclaimed by surety/other party as of September 30, <u>1999</u> (End of previous evaluation year) <sup>B</sup>	14	1972
Sites where surety/other party agreed to do reclamation during Evaluation Year <u>2000</u> (Current year)	5	1235
Sites being reclaimed by surety/other party that were re-permitted during Evaluation Year <u>2000</u> (Current year)	0	0
Sites with reclamation completed by surety/other party during Evaluation Year <u>2000</u> (Current year) <sup>C</sup>	1	34
Sites being reclaimed by surety/other party as of September 30, <u>2000</u> (Current year) <sup>B</sup>	18	3173
<sup>A</sup> Includes data only for those forfeiture sites not fully reclaimed as of this date <sup>B</sup> Includes all sites where surety or other party has agreed to complete reclamation and the site is not fully reclaimed as of this date <sup>C</sup> This number also is reported in Table 5 as Phase III bond release has been granted on these sites * Bond Forfeiture amounts collected unavailable		

**TABLE 8**

<b>STATE STAFFING</b> (Full-time equivalents at end of evaluation year)	
<b>Function</b>	<b>EY 2000</b>
<b>Regulatory Program</b>	
Permit review .....	8.90
Inspection .....	12.10
Other (administrative, fiscal, personnel, etc.) .....	6.20
<b>SUB-TOTAL</b>	<b>27.20</b>
<b>AML Program</b>	<b>32.40</b>
<b>TOTAL</b>	<b>59.60</b>

**TABLE 9**

<b>FUNDS GRANTED TO OHIO BY OSM</b> (Millions of dollars) <b>EY 2000</b>		
<b>Type of Grant</b>	<b>Federal Funds Awarded</b>	<b>Federal Funding as a Percentage of Total Program Costs</b>
Administration and enforcement	1.43	41
Small operator assistance	0.09	100
Abandoned Mine Lands	8.25	100
<b>Totals</b>	9.77	



## **APPENDIX B**

Ohio's comments on the draft report.