OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

Annual Evaluation Summary Report

for the

Regulatory and Abandoned Mine Land Programs

Administered by the State

of

WEST VIRGINIA

for

Evaluation Year 1999

October 1, 1998, to September 30, 1999

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I. Introduction

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining (OSM) in the Department of the Interior. SMCRA provided authority to OSM to oversee the implementation of and provide Federal funding for state regulatory and abandoned mine land (AML) programs that have been approved by OSM as meeting the minimum standards specified by SMCRA. This report contains summary information regarding the West Virginia programs and their effectiveness in meeting the applicable purposes of SMCRA as specified in Section 102. This report covers the period of October 1, 1998, to September 30, 1999. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at OSM s Charleston Field Office, 1027 Virginia Street, East, Charleston, West Virginia, 25301, phone (304) 347-7158.

The following acronyms are used in this report:

AMD	Acid Mine Drainage
AML	Abandoned Mine Land
AOC	Approximate Original Contour
CBMP	Coal Bed Mapping Project
CFR	Code of Federal Regulations
CHFO	Charleston Field Office
COE	U.S. Army Corps of Engineers
CWA	Clean Water Act
EPA	U.S. Environmental Protection Agency
EY 1998	Evaluation Year 1998 (October 1, 1997, to September 30, 1998)
EY 1999	Evaluation Year 1999 (October 1, 1998, to September 30, 1999)
FWS	U. S. Fish and Wildlife Service
GIS	Geographic Information System
MOU	Memorandum of Understanding
NPDES	National Pollutant Discharge Elimination System
OSM	Office of Surface Mining
PMLU	Postmining Land Use
SMCRA	Surface Mining Control and Reclamation Act
SRF	Special Reclamation Fund
WVDEP	West Virginia Division of Environmental Protection
WVHC	West Virginia Highlands Conservancy

II. Overview of the West Virginia Coal Mining Industry

Coal has been mined in West Virginia using underground methods since the early 1700's. Underground mining increased throughout the 1800's and into the 1950's. Surface mining began around 1916, but significant production did not occur until World War II. Mining activities occurring prior to passage of SMCRA in 1977 resulted in many

unreclaimed or under-reclaimed areas within the State. Currently, the AML inventory contains a record of 2,088 such sites.

West Virginia s demonstrated coal reserve base totals 35.4 billion tons. The State s estimated recoverable coal reserves at producing mines totaled 1.7 billion tons in 1997. Seventy-one percent of the coal reserves are recoverable through underground mining methods. West Virginia ranks fourth in the country in coal reserves. Coal occurs in all but two of the State s 55 counties. Minable seams occur in 43 of the 55 counties. Of the 117 identified coal seams in the State, 62 seams are minable using current technology.

Coal production in West Virginia accounts for about 16 percent of the Nation s total production. In 1998, West Virginia produced 172 million tons of coal, allowing it to retain its ranking as the second largest coal producing State (see Table 1, Appendix A). Underground mines produce approximately 68 percent of the State s total coal production. Fourteen of the Nation s 76 longwall mining operations are in West Virginia. Longwall coal production continues to increase in the State. Longwall mining operations produced 26 percent of the State s total coal production in 1998. However, continuous mining operations continued to account for most of the State s underground production. The average price per ton of coal mined in West Virginia during 1997 was $26.64. The price of West Virginia coal rose slightly over 1996, but it has declined steadily since 1988.

Contour, area, mountaintop-removal, and multiple-seam mining operations are the most common methods of surface mining in the State. With advances in mining technology, surface mines are becoming larger and more complex. Thirty-two percent of the coal produced in West Virginia is by surface mining methods. Since 1988, underground coal production in the State has increased by 0.6 percent, but surface mine production has increased by 6 percent. Mountaintop and multiple-seam mining operations are largely responsible for the increased surface coal production. Approximately 200 mountaintop mining operations were permitted in the State at the end of the reporting period. Mountaintop mining operations comprise only 19 percent of the State s total surface mining operations, but account for about 48 percent of the acres under surface mining permits.

West Virginia has nearly 2,700 inspectable units. The number of new permits issued annually by the State has declined, but the complexity and size of the operations have increased. Approximately 82 percent of the State s permits are active and require monthly inspections by the West Virginia Division of Environmental Protection (WVDEP). Underground mines account for about 42 percent of the total inspectable units and surface mines account for 34 percent. The remaining 24 percent consists of other facilities, including such things as preparation plants, refuse piles, loading facilities, and haulroads.

Approximately 78 percent of the coal produced in West Virginia is used domestically,

with 22 percent of that coal being consumed within the State. Most coal produced in West Virginia is used to generate electricity. Fifty-four percent of the coal produced in the State is transported by water and 40 percent is transported by railroad. Most coal consumed within the State is transported equally by railroad and barge.

West Virginia is the Nation s leading coal exporter with 46 percent of the foreign exports. Canada, Brazil, Italy, and the United Kingdom continue to be the leading importers of West Virginia coal. These countries account for 50 percent of the State s exports. Metallurgical coal comprises 79 percent of West Virginia s coal exports to foreign countries.

About 400 companies produce coal in West Virginia. Due to increased mechanization and consolidation in the mining industry, more than 4,031 mining jobs have been lost in the State since 1994, even though coal production has increased by 10 percent. Employment at both surface and underground mines has declined steadily since 1995. The State s coal mining industry directly employs approximately 17,383 people with a payroll of about $900 million. Total employment, including independent contractors, is estimated to be 53,000 employees. Seventy-five percent of the miners in the State work in underground mines. Forty-nine percent of the miners in the State are employed in Boone, Kanawha, Mingo, Raleigh, and Logan Counties. Fifty-six percent of the miners in the State are represented by unions and the remaining are non-union. West Virginia s miners are among the most productive in the Nation producing approximately 4.5 tons of coal per miner per hour. It is estimated that the State s coal industry generates approximately 60,000 additional coal-related jobs.

Coal accounts for nearly 13 percent of the Gross State Product, a measure of the total value of all goods and services produced in the State. West Virginia s coal industry pays more than $185 million annually in business and severance taxes to State and local governments and another $180 million in Federal taxes. The coal industry accounts for nearly 27 percent of the State s business tax, and approximately 10 percent of the statewide property tax collections are paid by the coal industry. Overall, it is estimated that every $1 billion worth of coal production generates $3.5 billion throughout the economy.

III. Overview of the Public Participation Opportunities in the Regulatory and AML Oversight Processes and the State Program

During the evaluation year, a new Director for WVDEP, Michael Castle, was appointed August 1, 1999. Throughout the year, WVDEP and OSM officials met with representatives of various citizen, environmental, and industrial groups including:

West Virginia Highlands Conservancy

West Virginia Organizing Project
West Virginia Mining and Reclamation Association
West Virginia Coal Association
Ohio Valley Environmental Coalition
Contractor s Association of West Virginia
Various watershed associations and local groups.

In order to provide information to the public, the CHFO maintains a mailing list of organizations and individuals that have been active in regulatory and AML issues in West Virginia. Office staff routinely interact with individuals and groups throughout the year and have attended meetings of various organizations. In addition to the normal oversight activities, CHFO participated in many public meetings related to the mountaintop mining controversy. These included public meetings regarding the Governor s task force on mountaintop mining, the mountaintop mining environmental impact statement (EIS), and the interim permitting process required by the *Bragg versus Robertson* (Bragg) litigation agreement. Representatives of the mining community and coal field citizens groups attended these meetings.

In addition to those provided through OSM, the approved West Virginia regulatory program affords many additional opportunities for public participation. In the permitting process, each application for a new or revised permit must be advertised and interested parties given the opportunity to comment. The WVDEP may also be requested to hold an informal conference to discuss the application prior to making a decision to issue or deny the permit. Citizens are also given the opportunity to participate in the inspection and enforcement process by filing written citizen complaints concerning specific issues at particular mine sites. They may also seek administrative review of WVDEP decisions by the West Virginia Surface Mine Board or judicial review through the State court system.

The WVDEP held several meetings with citizen groups concerning issues directly affecting their communities. They met with citizens to discuss blasting, dust control, subsidence, water loss, acid mine drainage (AMD), and other issues. The WVDEP has been instrumental in the development of the watershed management framework and other initiatives to preserve, protect, and restore stream water quality. The WVDEP s Office of Environmental Advocate also offers a means for public participation by working with individuals and groups on a variety of environmental issues within the State.

The approved AML Reclamation Plan also provides opportunities for public participation. These include public interaction during the processing of citizen complaints concerning AML problems; publishing newspaper notices seeking comment on each proposed construction project before requesting funding approval from OSM; and holding public meetings concerning proposed changes to the State AML Reclamation Plan.

IV. Major Accomplishments/Issues/Innovations in the West Virginia Regulatory Program

Accomplishments/Innovations

Acid Mind Drainage Inventory

The WVDEP completed and published a report in April 1999 on the quantitative and interpretive review of water quality on active mining operations in West Virginia. The report describes the inventory and assessment of water quality data collected during October 1998 and compares that data with the results of previous inventories conducted in 1994 and 1996. Copies of the report and conclusions can be obtained from WVDEP's Office of Mining and Reclamation.

Impact Assessment Model

During the evaluation period, West Virginia University, in cooperation with WVDEP, worked on the development of a hydrologic assessment model. The model is intended for use in:

- Predicting mine impacts from surface and underground mines on surface waters that effect the hydrologic balance.
- Preparing cumulative hydrologic impact assessments.
- Assessing stream loadings.
- Setting effluent limits.
- Conducting water quality investigations.

The assessment model is still in development. The Office of Mining and Reclamation staff is currently being trained in the use of this model and plans to add a groundwater module during EY 2000.

WVDEP Web Site

The WVDEP continued improving its web site. The site gets more than one million visits a year and was developed entirely in-house. Through the WVDEP web page, an individual can retrieve statistical information concerning active, abandoned, or forfeited mine sites. This information can be retrieved on a county and/or watershed basis. The site also includes information on the size, level of development, and amount of toxic discharges being released into watersheds throughout the State. Individuals can retrieve maps on-line that show various geographic and spatial features.

Governors Task Force

In June 1998, Governor Underwood created a 16-person task force to study the effects of mountaintop mining. The task force consisted of three committees: Committee on the Impact to the Economy, Committee on the Impact on the Environment, and Committee on the Impact on the People. Each committee held meetings and solicited information from various interest groups and the public on mountaintop mining. The three committees reported their findings to the task force. The task force compiled the findings into a final report that was published in the first quarter of the evaluation year (December 2, 1998).

The recommendations were extensive. They included:

- Research on the environmental and economic effects of mountaintop mining.
- Establishment of a State office to regulate the impact of mountaintop-removal mining on people.
- Establishment of a nationwide stream mitigation policy.
- Discontinuing of fish and wildlife habitat as a postmining land use (PMLU).
- Development of commercial forestland as a preferred PMLU.
- Rigorous enforcement of existing regulatory requirements, including water quality and approximate original contour (AOC) guidelines.
- Examination by the Legislature of whether public values compel restrictions on the degree of alteration of the landscape and the environment with regard to large-scale mountaintop-mining operations.

The Governor sent the final report to the Legislature without any recommendations. The Governor has stated publicly that he intends to generally follow the recommendations of the task force.

Watershed Management Framework and Clean Water Action Plan

During the evaluation year, both WVDEP and OSM participated with other State and Federal agencies in efforts associated with the West Virginia Watershed Management Framework and the Clean Water Action Plan. The Watershed Management Framework is West Virginia s plan for coordinating the operations of existing water quality programs and activities to better achieve shared water resource management goals and objectives. This management initiative involves using watersheds as a way to organize and focus Federal and State agency partners activities.

A component of the West Virginia Watershed Management Framework is the Clean Water Action Plan, a Federal initiative introduced early in 1998 to help chart a course toward fulfilling the original goals of the Clean Water Act for restoring and protecting the nation s water resource. OSM and WVDEP jointly participate in this initiative.

Issues

OSM identified several program issues which will require significant efforts to resolve. Some of these items have been identified in previous evaluations.

The Alternative Bonding System

The WVDEP bonding system is inadequate to complete land reclamation and abate water pollution. The WVDEP has expended bond fund money for chemical treatment at five forfeiture sites of the 67 forfeiture sites with pollution discharges. These existing expenditures were considered in the computations to determine the adequacy of the bond pool. Under current projections, the bond fund will not be sufficient to eliminate the backlog of unreclaimed forfeiture sites for 20 years. This deficiency is computed using only projections of future land reclamation and existing water treatment expenditures on the five sites already under treatment. These projections do not consider future or existing sites added for water treatment. OSM continues to hold the position that abatement of pollution is a valid part of land reclamation. Continual water treatment is a substitute for adequate land reclamation but is often the most effective abatement method that WVDEP considers. The fund does not have sufficient resources to guarantee timely reclamation without even considering the need for further water treatment at the 62 current forfeiture sites providing pollution discharges. OSM is developing options for resolving water related bonding issues for all states, and WVDEP has been assisting in that effort.

Required Program Amendments

As of September 30, 1999, WVDEP was overdue in satisfying 28 required amendments on its regulatory program. In addition, several other issues identified in 30 CFR 732 letters were still unresolved. These revisions are necessary to ensure that the State s approved program is consistent with the Federal requirements. Some progress was made over the past year on issues such as subsidence control and water replacement. However, many issues, some several years old, are yet to be addressed. WVDEP notes that other activities surrounding the mountaintop mining litigation has detracted from efforts to resolve these issues, but has agreed to give them priority in the coming year.

Mountaintop Removal AOC/PMLU

On May 4, 1999, the CHFO released its final oversight report entitled, *An Evaluation of Approximate Original Contour and Postmining Land Uses in West Virginia.* These topics are also part of our continuing efforts on providing technical assistance prior to permit issuance described under Section VI. The report found that AOC was not administered consistently in all applications and noted significant problems with the appropriateness of PMLU associated with mountaintop and steep-slope mining permits issued with waivers to AOC. During this evaluation period, WVDEP developed a prototype for AOC determination and has been working on rulemaking to clarify

allowable PMLU (PMLU). WVDEP is also negotiating with the plaintiffs under the Bragg litigation on these two topics. WVDEP has been using new processes to ensure new permits are not issued with the problems found in the study. Both OSM and WVDEP have agreed that review of existing permits for inappropriate land uses should be delayed pending the outcome of the litigation and rulemaking. As part of the report, OSM and WVDEP announced a joint agreement to resolve the outstanding issues.

Perimeter Protection

A perimeter protection study evaluated the perimeters of 10 mining complexes consisting of 26 large, active surface mine permits, totaling 24,045 permitted acres.

This study indicates the need for better perimeter protection, particularly in steep-slope terrain. Mine site evaluations indicate 15 downslope spoil and related violations observed on 13 permits during this study. Violation histories indicate some companies have more problems with downslope spoil and off-site disturbance than others. Suggestions to improve perimeter protection and reduce off-site disturbance include:

- Leaving natural barriers.
- Requiring specifications for constructed barriers.
- Training inspection personnel to recognize and identify downslope spoil and off-site disturbance.
- Instructing inspection personnel to properly cite all violations observed.
- Proper issuance and enforcement of show cause orders and consent agreements for patterns of violations.

Staffing

OSM has been working with WVDEP in the review of resources available to administer the program. On February 8, 2000, OSM requested WVDEP to develop a plan to address staffing concerns. OSM recommended the State consider an annual staffing increase of 58 employees to a total of 286.

Litigation

Litigation Impacts

OSM acknowledges that the significance of the litigation during this period has had an extraordinary impact on the program management and resources. WVDEP has fully participated in the EIS and the increased permit coordination required under the December 1998 Federal settlement of Bragg litigation. WVDEP also expended additional time and resources in litigation efforts, negotiations, and rulemaking to resolve significant litigation against the State. These activities, while of benefit to the program in

the long run, have impeded the State s ability to address other program issues with its limited resources.

Bragg v. Robertson, Civil Action No. 2:98-636 (S.D. W.Va.)

On July 16, 1998, the West Virginia Highlands Conservancy (WVHC) and ten other individuals sued WVDEP and the and the Army Corps of Engineers (COE) in the U.S. District Court for the Southern District of West Virginia. The lawsuit concerns the loss and degradation of West Virginia streams resulting from the construction of excess spoil fills associated with surface mining activities, including mountaintop-removal, steep-slope, and multiple seam mining operations.

On December 23, 1998, a settlement agreement was signed by attorneys for the WVHC, EPA, FWS, COE, WVDEP, and OSM to resolve all claims brought against the Federal defendants. The agreement requires the Federal agencies to prepare an EIS on the effects of mountaintop mining. Until the EIS is finished, the agreement requires a comprehensive and coordinated interagency review process for certain size mining applications that propose to discharge fill material into waters of the United States. OSM is coordinating the interagency review of West Virginia surface mining applications subject to the settlement agreement, and EPA is coordinating the development of the EIS. On June 17, 1999, Judge Haden approved the settlement agreement that was signed in December.

On July 26, 1999, lawyers for the WVHC and WVDEP submitted a proposed consent decree that, except for the counts regarding the stream buffer zone requirements, settles the remaining nine counts in the case. Because West Virginia law requires public notice and comment before a consent decree can be approved, a public comment period was announced in the State Register on July 30. At the same time, Judge Haden delayed accepting the proposed consent decree, because, in his opinion, the public needed to know more about the agreement. To help him determine if the agreement is in the public s interest, Judge Haden announced a separate comment period on the proposed consent decree that closed on September 30, 1999.

On August 9, 1999, OSM, WVDEP, COE, and EPA signed an MOU to clarify the applicability of stream buffer zone rules to surface mining operations with valley fills. On October 20, 1999, Judge Haden ruled that the placement of excess spoil from surface mining operations in intermittent and perennial streams violates Federal and State surface mining laws and the CWA. Judge Haden determined that excess spoil from a mining operation, being a pollutant or waste material, is not fill material subject to COE authority under Section 404 of the CWA when it is discharged into waters of the United States for the primary purpose of waste disposal. Fills with the primary purpose of waste disposal are to be regulated by EPA under Section 402 of the CWA. Accordingly, the MOU that OSM, COE, EPA, and WVDEP had signed in August was found to be

inconsistent with the CWA to the extent that it bases its proposal on the COE s authority to authorize waste fills in waters of the United States. Judge Haden acknowledged that valley fills constructed for the primary purpose of land development and approved in conjunction with mining permits with AOC variances may be authorized under Section 404 of the CWA.

On October 29, 1999, Judge Haden concluded that the State s offerings gave the District Court no basis to grant a stay. However, in an attempt to diffuse invective and diminish irrational fears, Judge Haden granted the State s motion to stay his October 20 ruling prohibiting the issuance of any new surface coal mining permits where excess spoil would be disposed in a valley containing an intermittent or perennial stream. The WVDEP has appealed Judge Haden s ruling to the U.S. Court of Appeals for the Fourth Circuit. The stay will remain in effect pending the appeal.

West Virginia Highlands Conservancy (WVHC) v. Babbitt, Civil Action No. 1:99CV01423 (D.C. D.C.)

On June 4, 1999, the WVHC and seven other citizens filed a lawsuit in the U.S. District Court for the District of Columbia against Interior Secretary Bruce Babbitt. The complaint states that Secretary Babbitt, acting through OSM, issued a document entitled Summary Report -- West Virginia Permit Review -- Vandalia Resources, Inc. Permit No. S-2007-98" announcing that valley fills are excluded from the stream buffer zone requirements of 30 CFR 816.57. The suit alleges that the announcement is both a rule within the meaning of the Administrative Procedures Act and a regulation within the meaning of SMCRA. The complaint alleges that the Secretary unlawfully promulgated the rule without first publishing a *Federal Register* notice announcing it and providing for public participation, obtaining the concurrence of the EPA Administrator as required by section 501(b) of SMCRA, and preparing an EIS as required by the National Environmental Policy Act. The plaintiffs have asked the Court to declare the announcement a rule and to vacate it.

West Virginia Coal Association (WVCA) v. Babbitt, Civil Action No. 2:98-0899 (S.D. W.Va.)

On July 14, 1998, the WVCA appealed OSM s July 14, 1998, decision to vacate the retroactive approval of an amendment to the West Virginia program. The amendment required permit applicants to be current in the payment of Workers Compensation premiums before they can receive permits, and required mine operators to comply with the requirement to pay such premiums.

On April 8, 1999, U.S. District Court Judge Joseph Goodwin approved a consent order that settled the case. Under the order, it was acknowledged that W. Va. Code §22-3-8(6)(B) had not been approved by OSM, and OSM would require WVDEP to resubmit the amendment. After which, OSM would initiate Federal rulemaking and render a decision on whether the provision is consistent with SMCRA and the implementing Federal regulations.

Notice of Intent to Sue (NOI)

On January 21, 1999, Walton Morris, Jr., on behalf of the Ohio Valley Environmental Coalition (OVEC) and the WVHC, filed an NOI with WVDEP for failure to perform certain non-discretionary acts or duties pursuant to Section 520(b)(2) of SMCRA and 30 CFR 700.13. The NOI alleges that WVDEP has issued new or significantly revised permits without performing cumulative hydrologic impact assessments in accordance with Section 22-3-18(b)(3) of the West Virginia Surface Coal Mining and Reclamation Act (WVSCMRA) and Code of State Regulations (CSR) §§ 38-2-2.37, 2.38, and 3.22.e. The NOI also alleges, WVDEP issued permits containing ground and surface water monitoring plans that do not meet the requirements of Section 22-3-18(b)(1) of the WVSCMRA and CSR §§38-2-3.22.g and 3.22.h.

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 - Regulatory Program

At the end of each evaluation year, OSM combines the findings from the performance standard reviews conducted by the various field offices. This provides a national perspective on:

- The number and extent of observed off-site impacts.
- The number of mined and reclaimed acres that meet the bond release requirements of the various phases of reclamation.
- The effectiveness of customer service provided by the State.

The findings specific to West Virginia are discussed below. For further information on how the CHFO conducted these evaluations, you may review the individual topic reports in the Charleston Field Office.

Off-Site Impacts

The CHFO conducted an evaluation on all West Virginia non-forfeited coal mining permits. This was to determine the effectiveness of the State program in protecting the

environment and the public from off-site impacts from surface coal mining and reclamation operations. The evaluation revealed that 94 percent of the State s 2,776 permits were free of off-site impacts.

During this evaluation period, the State conducted 22,607 inspections and issued 1,168 enforcement actions. Of these enforcement actions, 257 off-site impacts were found on 179 permits. In comparison to last year s 308 off-site impacts on 161 permits, the State has decreased off-site impacts by 17 percent. However, the number of permits with off-site impacts increased by 10 percent since last year. Most all of the off-site impacts (94 percent) were categorized as minor. The figures representing resources affected, degree of impact, and type of impact can be found on Table IV.

Hydrology, representing 61 percent of the off-site impacts, still remains the most common type of impact. This category has increased by 2.3 percent from last years 59 percent.

The State s Special Reclamation team conducted a review of the sites forfeited between January 1, 1998, through June 30, 1999. During this period 14 sites were added to the inventory. Eleven of these sites have off-site impacts. They reported that 29 of the previous years impacts were corrected. These additions and deletions increased the forfeited permit inventory to 258 with 76 having off-site impacts.

The Special Reclamation team continues to maintain the inventory of the State s forfeited permits and are responsible for the reclamation of these sites. Some of the sites with off-site impacts are being monitored with plans being prepared to bring these sites into regulatory compliance. Others are in various planning stages for remedial work to be performed. Overall, the State has reduced the off-site impact inventory for forfeited sites by 20 percent this year.

Reclamation Success

The CHFO evaluated the effectiveness of WVDEP s program in ensuring successful reclamation on lands affected by surface coal mining operations. Success was measured by the number of acres that met the bond release standards. At the end of the last evaluation period there were 287,120 total bonded acres in West Virginia, with an additional 8,026 acres added in the current evaluation period. In this same period, there were 2,361 acres of Phase I bond release, 4,999 acres of Phase II, and 10,915 acres of Phase III. Table 6 of Appendix A contains information relating to State bond release activity.

Customer Service

The CHFO evaluated the effectiveness of customer service provided by WVDEP. The CHFO monitored the State s responses to complaints and requests for assistance and

services. The timeliness, accuracy, completeness, and appropriateness of the State s actions were evaluated. The CHFO found that WVDEP responds to complaints in a timely manner and met their program requirements. As discussed in Section III, WVDEP made several special efforts to provide interested parties with forums to express their concerns.

VI. OSM Assistance - Regulatory Program

Federal funds in the amount of $7,373,026 were made available to the State during the evaluation period. Table 7 in Appendix A indicates the State staffing to enforce the approved State program. Table 8 identifies the specific amounts awarded for each program.

Site Specific Technical Assistance

Throughout the year, WVDEP requests OSM assistance to review complex site-specific issues. Many deal with hydrology issues requesting extensive time and effort to conclude.

Governor s Task Force on Mountaintop Mining

OSM participated in an advisory capacity on the Governor s Task Force on Mountaintop Mining. The task force published its report on December 2, 1998.

Mountaintop Mining Environmental Impact Statement

As part of the settlement agreement referenced earlier in the Bragg discussion, WVDEP and OSM agreed to participate in an EIS, to consider developing agency policies, guidance, and coordinated agency decision-making processes to minimize, to the maximum extent practicable, the adverse environmental effects to waters of the United States and to fish and wildlife resources affected by mountaintop mining operations, and to environmental resources that could be affected by the size and location of excess spoil disposal sites in valley fills. This has occupied a large amount of staff time for both offices. At this point, the draft EIS is scheduled for release in June 2000. The analysis in this document should provide ideas for improvements in the State program.

OSM Technical Training

OSM provided technical training to 71 WVDEP regulatory staff during EY 1999.

Underground Mine Pools

OSM continued to provide technical assistance to WVDEP regarding the flooding of underground mine voids. Many decades of underground mining on the Pittsburgh Coal Seam have left voids that are either flooded or in the process of flooding. In 1996, the

mine voids filled to near-land surface. Regulatory staff from various agencies predicted the mines would discharge into the Monongahela River. Under an order from EPA, the mine operator routed water with high concentrations of iron from the mine that was nearing discharge to an adjacent mine that was not yet flooded. The water would travel through the voids until it would be pumped to the surface at a water treatment facility. Several meetings with various agencies including OSM, EPA, WVDEP, and the National Mined Land Reclamation Center (NMLRC) were held during EY 1998. In EY 1999, OSM drilled five new monitoring wells and started monitoring.

Mountaintop Mining Assistance

Action Plan - As mentioned above, an action plan was signed by WVDEP and OSM on April 27, 1999, that identified measures to be taken over the next several months to address the mountaintop mining issues. In summary, WVDEP agreed to:

> Develop, with OSM assistance, criteria for assessing excess spoil calculations in determining AOC and begin implementing the concept on a pilot basis in West Virginia.
>
> WVDEP published AOC criteria on March 18, 1999, and has been using it in the evaluation of permit applications. Negotiations to further refine the criteria are ongoing as a result of the Bragg litigation.
>
> Continue working with OSM through the normal oversight process to improve its data collection efforts.
>
> During the evaluation period, WVDEP updated AOC variance and PMLU data in the Environmental Resources Information System (ERIS) for all mountaintop mining permits. OSM still needs to sample some permits to verify accuracy of the data.
>
> Develop procedures or revise the West Virginia program to resolve differences relating to expected need and market data, woodlands and public use when allowing mountaintop-removal AOC variances.
>
> During the evaluation period, WVDEP submitted information clarifying its woodlands PMLU. In addition, the State has revised its permit application form to require the submission of information regarding expected need and market data. Under the Consent Decree that is to settle the remaining counts in the Bragg litigation, WVDEP is to developed statutory revisions regarding expected need and market data and allowable PMLU for mountaintop-removal mining operations with AOC variances. OSM is requiring the State to modify its program to clarify that the term public use will be interpreted the same as public facility use at Section 515(c)(3) of SMCRA.

Revise existing permits that allow for unauthorized PMLU of forestry and fish and wildlife habitat and recreation lands.

WVDEP has stopped approving these PMLU for mountaintop mining permit applications with AOC variances. WVDEP has submitted a program amendment to resolve PMLU concerns. Review of existing permits has been delayed pending these program revisions and the development of PMLU guidelines by OSM.

Modify permit application forms and review documents to include specific findings for mountaintop-removal and steep-slope mining AOC variances.

During the evaluation period, WVDEP modified its permit application form to require the specific findings. OSM still needs to sample recent permits to ensure compliance with the revised form.

Modify the West Virginia program to limit approval of steep-slope AOC variances to specific PMLU authorized under SMCRA.

During the review period, WVDEP submitted a program amendment that limited the approval of steep-slope AOC variances to certain specific PMLU. The amendment is currently under review by OSM.

Review permits with steep-slope mining AOC variances to determine the appropriateness of the variance and the PMLU.

Review of existing previously approved permits has been delayed pending the approval of the program amendment and the development of PMLU guidelines by OSM.

Work with OSM to further clarify how SMCRA and WVSCMRA are to be applied with regard to protecting riparian vegetation, natural watercourses, and the buffer zones of intermittent or perennial streams while allowing the disposal of excess spoil in streams.

OSM, WVDEP, the COE, and the EPA signed a Memorandum of Understanding (MOU) on August 9, 1999, to clarify the applicability of stream buffer zone rules to surface mining operations with valley fills. This is part of the Bragg litigation that is pending before the U.S. District Court. Completion of this task will be delayed pending resolution of this issue.

Participate with OSM in the evaluation of the probable hydrologic consequences determinations, cumulative hydrologic impact assessments, and hydrologic reclamation plans of large mountaintop mining operations to ensure that adequate steps are being taken to minimize disturbances to the hydrologic balance.

Efforts are underway to improve the hydrologic components of permit applications. Revisions to guidance documents, forms, and procedural changes are under ongoing with OSM assistance.

" Participate with OSM in the evaluation of mountaintop mining permits to ensure compliance with the contemporaneous reclamation requirements of the approved State program. In the technical assistance role described under Permitting Technical Assistance, OSM is reviewing the aspects of the large applications related to contemporaneous reclamation. OSM is also conducting a study of how well existing permits are complying with these requirements.

" Cooperate with OSM to allow oversight and technical assistance activities to occur prior to actual issuance of permits. WVDEP has been cooperating with OSM during the permitting program.

Permitting Technical Assistance

On April 13, 1999, OSM announced that an OSM team would immediately begin providing technical assistance to WVDEP in the review of surface mining applications determined likely to require the issuance of a CWA Section 404 Individual Permit. The team would also provide assistance in implementing revised determinations for Probable Hydrologic Consequences and Cumulative Hydrologic Impact Assessments. It would also provide assistance, as needed, to the COE in the CWA Section 404 process. The team consists of:

" Two geologists/hydrologists from OSM s Knoxville Field Office (KFO).
" Two geologists/hydrologists from OSM s Appalachian Regional Coordinating Center in Pittsburgh, Pennsylvania.
" An engineer from KFO and another from the CHFO.
" Two specialists with experience in the National Environmental Protection Act, one from KFO and one from CHFO.
" A manager to oversee the technical assistance efforts.

The technical assistance team was assigned full-time to assist the WVDEP and the COE in reviewing and developing procedures to improve the review of surface mining and CWA Section 404 permit applications.

At the beginning of the assistance effort, the team identified 18 permit applications likely to require a CWA Section 404 Individual Permit review. As of September 30, all but

four of these applications had received at least an initial review by WVDEP and OSM. Several meetings had been held with applicants to discuss concerns raised during the reviews. Since the reviews began, the State has received four additional permit applications for operations likely to require a CWA Section 404 Individual Permit. OSM will provide WVDEP technical assistance in these reviews.

OSM is also participating with WVDEP, EPA, FWS, and COE in the review of all agencies systems and processes to determine where the WVDEP surface mining permit application process can be enhanced to further its capability to serve as the platform for decisions and permits required by other agencies. The status of the interagency permit review effort is discussed in a monthly report to the West Virginia Congressional delegation and is available on OSM s Home Page at www.osmre.gov.

VII. General Oversight Topic Evaluations - Regulatory Program

As part of the oversight inspection process, the CHFO conducted a review of West Virginia s bond release activities, an aerial review of selected sites, and an evaluation of the use of native species for revegetation. Our findings for these review activities follow.

Bond Release

This review consisted of on-the-ground inspections as well as an aerial review of bond released sites for AMD. Our on-the-ground review consisted of sites which were in varying stages of release. Sites reviewed included: 26 - Phase I, 15 - Phase II, and 13 sites on which Phase III release had been granted or requested.

Our review found that release standards were properly applied on all but one of the sites. A highwall was found to exist on one site which had received a Phase II release. OSM issued a Ten Day Notice and the State issued a NOV requiring the highwall to be eliminated. Overall, the sites inspected demonstrated satisfactory reclamation and shows that West Virginia is conducting its bond release program in accordance with applicable law, regulations, and policies. The reported bond release activities can be used as indicators of standards of reclamation success.

The results of our aerial review are contained in the following section.

Aerial Inspections

This part of the evaluation focused on sites which received a Phase II or Phase III bond release since October 1, 1997. The review was conducted in counties which have been determined to have a high probability for AMD. The sites were reviewed to see if seeps, which had not been previously identified, were present and to see if the approved postmining land use had been achieved. For the second component of the evaluation, large mining operations in steep terrain were reviewed to see if there were indications of flyrock, downslope material, or other off-site disturbance.

The team reviewed two types of sites. One group of twenty sites was randomly selected from operations that received a Phase II or Phase III release between October 1, 1997, and November 15, 1998. The second group of ten sites was randomly selected from large, active mining operations in steep terrain.

The team observed potential problems on six of the twenty sites which had received Phase II or Phase III bond release. Discoloration indicating the possible presence of AMD was observed. From the air it is impossible to tell if the water is actually discolored or if stains are present on the ground and/or rocks from previous discharges. On-the-ground follow-up inspections were conducted on each of the 6 sites. On-site testing showed that the water was within acceptable limits on each of the sites. All of the sites appear to have achieved the approved postmining land use.

Evidence of flyrock, downslope material, or other off-site disturbance was observed on all of the ten large mining operations in steep terrain. The team conducted on-the-ground inspections on each of these sites. The Perimeter Protection Evaluation report contains the results of these inspections.

Use of Native Species for Revegetation

The CHFO reviewed the revegetation plan of all permits selected for random oversight inspections during EY 1999 to determine the types of herbaceous and woody species chosen for planting. The West Virginia Surface Coal Mining and Reclamation Act at Chapter 22, Article 3-13 (b) (19) requires the operation, at a minimum, to establish on the regraded areas, and all other lands affected, a diverse, effective, and permanent vegetative cover of the same seasonal variety native to the area of land to be affected or of a fruit, grape, or berry producing variety suitable for human consumption and capable of self-regeneration and plant succession at least equal in extent of cover to the natural vegetation of the area, except that introduced species may be used in the revegetation process where desirable or when necessary to achieve the approved postmining land use plan.

The review team notes that none of the revegetation plans included native herbaceous species. However, nearly all of the grass and legume species used in improved pasture and haylands throughout the United States are introduced (not native), though they are naturalized, according to the US Forest Service.[1] This obviously makes the use of native herbaceous species for these land uses very difficult. Where the postmining land use is forestland, non-native herbaceous species are used as well, due to the proven ground cover capabilities of introduced herbaceous species and the limited number of native herbaceous species and limited seed sources for those species. The planting of native woody species was required on 86 percent of the reviewed permits. On these sites, succession should ultimately eliminate the non-native herbaceous species when a forest ecosystem is established.

The West Virginia approved program allows the use of introduced species where desirable or when necessary to achieve the approved postmining land use plan. The herbaceous plants specified in the revegetation plans the team reviewed meet this criteria. Our review shows that a considerable percentage of the permit revegetation plans require a native woody species to be planted. The review team concludes that the WVDEP is in compliance with the segment of the approved program regarding native species.

Alternative Bonding System Adequacy

A joint WVDEP/OSM team has been conducting a two-phase review of the State s bonding system. The first phase was a review of the site-specific bonding regulations implemented by WVDEP. This review found that forfeited bonds alone would not generate sufficient revenue to perform land reclamation at all sites with permit revocations and bond forfeiture. Even with the site-specific bonding, the Special Reclamation Fund (SRF) would have to continue to rely on supplemental revenue sources to complete land reclamation. This review was completed in an earlier evaluation period.

The objective of the second phase was to determine whether the SRF, considering all designated revenue sources, has or will have sufficient revenues to perform land reclamation at all pending sites with permit revocations and bond forfeitures that are now its responsibilities. For the purposes of this review, the need for treatment of acid-mine drainage was not considered, only the land reclamation to regrade the site and establish vegetative cover. The review team considered all revenues generated and liabilities incurred by the SRF. They concluded that the SRF could be financially solvent if its responsibilities were limited to land reclamation. However, the addition of water treatment responsibilities due to AMD discharges creates the need for additional money to meet the total reclamation demands. In order to better quantify the water treatment needs and costs, WVDEP and OSM have agreed to perform a detailed inventory of bond

[1] A Manual for Training Reclamation Inspectors in the Fundamentals of Soils and Revegetation, page 43, USDA Forest Service Northeast Forest Experiment Station, Berea, KY, September, 1987.

forfeiture sites with water treatment needs to predict the costs for the necessary treatment to remediate the AMD discharge. When the data from this review is compiled, the review team will further evaluate treatment options and funding alternatives.

The inability of the West Virginia alternative bonding system to accomplish both water treatment and land reclamation at bond forfeited sites is not only unique to West Virginia, but other State programs as well. To assist states in addressing this, OSM has contracted with a consulting firm to conduct an actuarial assessment for developing options to fund long term treatment of polluted discharges at permitted sites. The contract is designed to provide regulatory authorities with tools to assist in calculating costs to treat polluted water on sites with long term discharges. This will enable States to develop sufficient financial arrangements with the permittee to allow treatment of polluted discharges in the event of performance bond forfeiture.

AMD Inventory

In the EY 1998 evaluation report, OSM reported that WVDEP had completed (in October 1996) its second Active Coal Mine Drainage Inventory of sites requiring chemical treatment. It was also reported that the final report pertaining to the inventory had been delayed as a result of other priority issues being addressed by WVDEP and OSM.

Soon after the EY 1998 reporting period, the WVDEP conducted a third Coal Mine Drainage Inventory. WVDEP decided it would be beneficial to combine the findings from the 1996 and 1998 Inventory into one report. This report was completed and published in April 1999 on the quantitative and interpretive review of water quality on active mining operations in West Virginia The report describes the inventory and assessment of water quality data collected during October 1998 and compares that data with the results of previous inventories conducted in 1994 and 1996. Copies of the report and conclusions can be obtained from the WVDEP's Office of Mining and Reclamation.

The 1999 Study Report concluded that at the time of the 1998 inventory there were 725 discharges that required chemical treatment to meet effluent limits. Inspectors conducting the 1998 inventory determined that water quality from 485 of the 725 sources would significantly impact the receiving stream if untreated and that 584 of the sources would prevent performance bond release of the affected permits. The study further concluded that deep mine drainage dominates the polluted flow. Although only 20 percent of the total polluted sources are deep mines, these sources represent 55 percent of the flow.

The 1998 Inventory reflected lower flows and loadings than previous inventories. The WVDEP proposes to conduct another inventory in October 2000.

Contemporaneous Reclamation

During this evaluation year, a review was initiated to evaluate the contemporaneous reclamation requirements and related waivers for large surface mines. The evaluation was a component of the WVDEP/OSM Approximate Original Contour /Post Mining Land use Action Plan, signed in April of 1999.

All field work for this study and associated reports had not been completed at the end of this evaluation year. Therefore, findings and conclusions from this review will be completed in the early part of the next evaluation period and reported in the next annual report.

OSM Inspections

During EY 1999, the Charleston Field Office conducted 231 inspections to evaluate West Virginia s program. Forty-one of the 231 inspections concerned the non-payment of reclamation fees, and included issuance of enforcement actions and subsequent follow-up actions. When you deduct these inspections, a total of 190 inspections were conducted to evaluate the State program.

The inspections revealed a total of 152 violations. Sixty-three of the 152 violations involved the non-payment of reclamation fees, which is not covered by the State program. When you deduct these violations, 89 violations of the State program were observed on 76 of the 190 inspections. This shows that violations of the State program were observed on 40 percent of the inspections.

To date, all of the identified State program violations have been properly handled by the State. Fourteen of the violations had been previously cited by the State, 55 were cited at the time of the inspection, and 19 violations resulted in Ten-Day Notices (TDN). The State appropriately handled 13 of the TDNs. Additionally, the State has requested technical assistance to investigate five of the alleged violations. The State has responded to the remaining TDN and their response is currently being evaluated. One Federal Notice of Violation (NOV) was issued on a Federal permit where the State has no jurisdiction. Table 2 in Appendix A indicates the number of inspectable units for WVDEP for EY 1999. Table 3 indicates the permitting actions conducted by WVDEP for EY 1999.

Perimeter Study

A perimeter protection study evaluated the perimeters of 10 mining complexes consisting of 26 large, active surface mine permits, totaling 24,045 permitted acres. The permits are located in steep terrain in south-central and southern West Virginia. The mines were examined for adequate safeguards in the field to minimize impacts on the land (downslope and off-site) and to insure the safety of the people in the area. The approved

West Virginia program allows constructed outcrop barriers as no less effective than the comparable Federal regulation which requires natural barriers.

This evaluation revealed the following:

- Outcrop barriers are allowed by the approved program, but there is an outstanding program amendment requiring the State to submit specific design requirements.

- Safeguards used to minimize downslope spoil and off-site disturbance primarily consist of ditches designed for sediment control only. Some sites required natural outcrop barriers.

- Downslope spoil and off-site disturbance problems continue to occur even with the aforementioned safeguards, and in one observed case, with a natural outcrop barrier in place.

- Use of the ditch as the sole method of outcrop barrier in steep terrain sometimes contributes to landslides/downslope spoil.

- The cause of downslope spoil is usually a result of one or more of the following: (1) actual construction of the ditch/barrier, (2) overburden handling, and/or (3) blasting flyrock.

- Violation histories indicate some companies have more problems with downslope spoil and off-site disturbance than others. For example, one history indicates three patterns of downslope violations on one permit. OSM plans a review of patterns of violations related to downslope spoil and off-site disturbance during Evaluation Year 2000.

- Mine site evaluations indicate 15 downslope spoil and related violations observed on 13 permits during this study.

This study indicates the need for better perimeter protection in steep-slope terrain. Suggestions to improve perimeter protection and reduce off-site disturbance include: (1) leaving natural barriers, (2) requiring specifications for constructed barriers, (3) training inspection personnel to recognize and identify downslope spoil and off-site disturbance, (4) instructing inspection personnel to properly cite all violations observed, and (5) proper issuance and enforcement of show cause orders and consent agreements for patterns of violations. On March 9, 2000, WVDEP submitted a plan and actions to be taken to address the items specified in this study (pages C4 and C5 of this report). This plan is currently under review by CHFO.

Small Operator Assistance Program (SOAP)

Since last year s Small Operator Assistance Program (SOAP) review disclosed that some services being provided by WVDEP appeared to go beyond what was allowed, OSM planned to conduct a follow-up review during this evaluation period. The purpose of the review was to determine if the SOAP services being provided by WVDEP were consistent with State and Federal rules. However, this evaluation was placed in abeyance until a State and Federal team develops a listing of authorized services that may be provided under SOAP. The team s work, in this area, is in the process of being finalized. After guidance is provided on authorized services, the follow up review will be scheduled.

Program Amendment Status

On May 11, 1998, WVDEP submitted an amendment to its approved permanent regulatory program (WV-080-FOR). The amendment consists of revisions to the State s Surface Mining Reclamation Regulations that were signed into law by the Governor on April 12, 1998. OSM announced receipt and requested public comment on the amendment in the *Federal Register* on June 15, 1998. The revisions relate to the definitions of coal remining operation and remined area, removal of abandoned coal refuse disposal piles, permit findings, disposal of excess spoil, special authorization for coal extraction incidental to development, and remining standards. Many of the changes are to implement statutory revisions that had been partially approved by OSM earlier. A final decision on the proposed regulatory revisions will be announced shortly in the *Federal Register*.

On December 10, 1998, OSM published a notice in the *Federal Register* announcing the reopening of the comment period on an amendment that had been submitted initially on April 28, 1997, with revisions on May 14, 1997. The amendment would allow fish and wildlife habitat and recreation lands as a PMLU for mountaintop-removal mining operations with variances from approximate original contour. On May 14, 1999, OSM announced in the *Federal Register* its disapproval of the proposed State amendment. The State is required to remove the disapproved language from its statute and clarify that public use is interpreted the same as public facility use.

On February 9, 1999, a notice was published in the *Federal Register* announcing, with certain exceptions, OSM s approval of an amendment that had been submitted by WVDEP on April 28, 1997, with revisions on May 14, 1997, and clarifications on April 27, 1998. The amendment (WV-077-FOR) contained revisions to West Virginia s surface mining law and regulations. The revisions related to the State s definitions of surface mine, unanticipated event or condition, lands eligible for remining, replacement of a water supply, acid coal producing seam, prospecting, sediment control structure, substantially disturb, and material damage; coal extraction pursuant to a government financed reclamation contract; coal extraction incidental to development; reclamation of an abandoned or forfeited mine by a no-cost reclamation contract; revegetation standards; inspection and enforcement procedures; permit issuance;

readvertisement; subsidence control plan; removal of abandoned coal refuse disposal piles; incidental boundary revisions; measurement tolerances; permanent impoundments; blasting procedures; fish and wildlife habitat development; vegetative cover; inactive status; contemporaneous reclamation; and subsidence control. As a result of the decision, OSM imposed twelve required amendments on the State s approved program.

On March 25, 1999, WVDEP submitted an amendment to its approved program (WV-081). On April 1, 1999, WVDEP notified OSM that Enrolled Senate Bill 681 had been signed into law by the Governor. It creates a new Office of Explosives and Blasting within WVDEP, creates an Office of Coalfield Community Development, and modifies the State s Stream Mitigation Law. OSM published a *Federal Register* notice on April 20, 1999, announcing the receipt of the amendment which was limited to the Office of Explosives and Blasting. A meeting was held in Pittsburgh on July 19, 1999, to discuss OSM s proposed findings with the State. On August 10, 1999, WVDEP provided OSM additional clarification on the amendment. OSM published a notice in the *Federal Register* on October 8, 1999, announcing receipt of the information from WVDEP and providing the public an opportunity to comment on it. A final decision on this amendment will be announced soon.

On May 5, 1999, WVDEP submitted revisions to its Surface Mining Reclamation Regulations that were authorized by House Bill 2533 (WV-082). The State also requested that OSM reconsider its disapproval of certain provisions in view of a U.S. Court of Appeals decision relating to subsidence. A notice of receipt of the amendment was published in the *Federal Register* on May 27, 1999. The amendment revises those State requirements relating to definitions of area mining operations and mountaintop mining operations; variances from approximate original contour in steep-slope areas; subsidence control plans; permit issuance; construction tolerance; surface owner protection; and primary and emergency spillway designs. On October 1, 1999, OSM published a *Federal Register* notice announcing its approval of the amendment. As a result of the amendment, OSM removed the required amendments regarding spillway design for coal refuse impoundments and allowable PMLU for steep-slope mining operations. OSM deferred a decision on the subsidence request. OSM will make a separate ruling on this request.

Maintenance of the Approved Program

During the evaluation period, the State satisfied two required amendments. However, at the end of the reporting period, the State still had twenty-eight required amendments that had not been satisfied. In addition, the State has received six 30 CFR 732 notifications from OSM with approximately thirty-one deficiencies that have not been resolved. Many of the program amendments that were submitted by the State during the evaluation period resulted in additional required amendments. For the most part, the actions taken by the State during the year did very little to eliminate its backlog of required amendments. The deadlines for satisfying many of these issues are long overdue.

On September 22, 1999, OSM provided the State a listing of its outstanding required amendments and 30 CFR 732 notifications. OSM concluded that effort was made at the beginning of the oversight year to resolve some of the issues, but the mountaintop mining litigation has delayed progress on them. It was recommended that the resolution of these issues be one of our top priorities for the upcoming year.

Federal law provides that no changes in a State program can take effect without OSM approval. Most amendments, at the time they are submitted to OSM, contain statutory or regulatory provisions that are approved by the Legislature and signed into law by the Governor. To ensure that these requirements are not implemented prior to OSM approval, WVDEP includes an addendum in its statute or regulations to identify those provisions that have not been approved by OSM. OSM is not aware of any unapproved provisions being implemented by the State during the reporting period. OSM will continue monitoring program activities to ensure that unapproved requirements are not implemented.

VIII. Abandoned Mine Land Reclamation Program (AMLR)

General

The mission of the AMLR program is to reclaim abandoned mine sites by abating hazards, reducing/mitigating adverse effects of past mining, and restoring adversely affected lands and water to beneficial uses. WVDEP s Office of AML is successfully accomplishing this mission in West Virginia.

The State conducts all AML reclamation in West Virginia. OSM has approved four primary AML components:

The regular construction program abates high priority, non-emergency problems. OSM approved it on February 23, 1981.

The emergency program abates emergency problems caused by abandoned coal mining practices. OSM approved it on August 26, 1988.

Water supply provisions allow the State to repair or replace water supplies where the damage results from mining occurring primarily before August 3, 1977. OSM approved them on July 25, 1990.

The AMD set aside program allows the State to use 10 percent of its annual grant allocation to reclaim watersheds impacted by AMD. The program was approved on March 26, 1993, and WVDEP funded the first project on August 23, 1995.

In 1995, OSM implemented a new program within the AML Program called the Appalachian Clean Streams Initiative (ACSI), to clean up streams and rivers polluted by acid and toxic drainage from abandoned coal mines. Beginning in 1997, OSM received funding from Congress for the ACSI which in turn was distributed to State AML Programs for polluted mine drainage cleanup projects.

During the past three years, West Virginia has received $2,586,720 for ACSI projects. West Virginia identified nine projects where these funds were to be expended. To date, WVDEP has expended $997,841 of the total awarded amount. The WVDEP has completed two of the nine planned projects (Browns Creek and Grass Run Refuse). Some funding has been expended on three additional projects with significant construction activities planned for two of these three project sites in EY 2000 (Sovern Run and Johnson Knob).

West Virginia s AMLR is recognized as a leader in the application of AMD remediation techniques. Their progressive approach is also reflected in the agency s creation of the AML Stream Restoration Group.

The State s AMLR is also in the forefront with its support of watershed groups through the Stream Partners Program it coordinates. This program is implemented in cooperation with three other State agencies and was established to provide seed grants ($5,000) to community-based organizations to help enhance and protect watersheds. The West Virginia Legislature budgets $100,000 annually for distribution to qualifying watershed organizations.

Noteworthy Accomplishments

Construction Activities

Table 9 of Appendix A lists the cumulative accomplishments in West Virginia. A comparison of this table with the EY 1998 West Virginia Evaluation Report shows that during EY 1999 West Virginia reclaimed:

- 1.6 miles of clogged streams.
- 8,000 linear feet of dangerous highwalls.
- 30 dangerous impoundments.
- 243.7 acres of dangerous piles and embankments.
- 20.3 acres of dangerous slides.
- 26 hazardous equipment and facilities.
- 4 hazardous water bodies.

- 9 industrial/residential waste facilities.
- 72 portals.
- 4 sites of polluted waters: agriculture and industrial.
- polluted water impacting 537 persons.
- 2.3 acres of subsidence.
- 32.4 acres of surface burning.
- 10 vertical openings.
- 45.5 acres of gob piles.
- 2434 linear feet of highwall.
- 15.4 acres of spoil areas.

Emergency Projects

During EY 1999, a total of 40 AML emergencies were approved for the State of West Virginia. The program cost estimates for these approved emergencies totaled $1,657,200.

Problems types in this group included landslides, subsidences, burning refuse piles, underground mine fires, clogged streams, dangerous portals and/or vertical openings, and a dangerous impoundment.

In the course of the evaluation year, 17 projects were approved for $25,000 or more. Of these 17 projects, 7 exceeded $50,000. Four of these seven exceeded $100,000. Early in the evaluation period the CHFO randomly selected 10 percent of these projects for field evaluations. None of the projects selected exceeded $20,000 in contract magnitude.

The CHFO was able to attend prebid conferences on all four sites. There were two oversight inspections during construction and one oversight at a final inspection. The mountaintop mining workload prevented any additional field reviews during this evaluation cycle. The bid documents matched well with the approved scope of work.

OSM Technical Assistance

Mine Blowout Study

In the fall of 1998, WVDEP expressed a desire to identify abandoned mine sites in the State that have mine blowout potential. The West Virginia Geological and Economic Survey (WVGES) is the geologic mapping agency of the State. They have information related to identification and analysis of the potential for mine blowouts, specifically the map and database products of the Coal Bed Mapping Project (CBMP). The CBMP is an ongoing mapping effort designed to create a Geographic Information System (GIS)-based inventory of coal in West Virginia. The map and GIS products depict the resources of each mined or potentially minable coal bed in the State.

To date, the agencies have a prototype mapping data collection that includes known AML sites, topography, geology, extent of mining for active and abandoned underground mine permits, surface and auger mined areas, and some NPDES monitoring point information, with potential mine blowout areas identified for the Fayette County portions of the Montgomery and Gauley Bridge U.S.G.S. 7.5 (1:24000 scale) minute quadrangle maps. The coal bed geology, including structure , outcrop, and mined areas are from the WVGES State-funded CBMP for Fayette County.

WVGES agreed to develop this prototype map collection in order to show what can be accomplished using the GIS-based coal bed mapping available for Fayette County. The resultant mapping for the test areas has been field checked. While the initial results were very encouraging, additional field testing is advisable to further refine the model and to test improvements.

Technical Training

OSM provided technical training to 11 WVDEP AML staff during EY 1999.

Results of Enhancement and Performance Reviews

Throughout the course of EY 1999, WVDEP and OSM conducted three AML performance and enhancement reviews. A brief description of these reviews and their results follows.

AML Emergency Oversight

During EY 1999, the CHFO conducted oversight field reviews at six projects: four subsidence disturbances and two AML surface burning incidents. OSM found no problems with the final products on the four final inspections.

NEPA Compliance on AML Projects

In May 1999, eleven project files were randomly selected at WVDEP s AML Nitro office and reviewed for administrative compliance. Additionally, several projects were field reviewed to determine if the mitigation measures and permits required in the environmental documents had been obtained and were installed on the project. CHFO is currently developing the report on this project and it will be covered in next year s annual report.

Compliance With Contract Specifications

During the course of EY 1999, the CHFO reviewed eleven AML projects for compliance with contract specifications. One field evaluation occurred before the CHFO reviewed the Environmental Assessment and issued a Finding of No Significant Impact. Three of the sites were evaluated at their prebid conferences. One of these was also evaluated during construction. The CHFO reviewed an additional four projects during construction and two at final inspection.

Construction compliance to contract specifications was good. It was a very dry year in this State. Consequently, problems with growing and maintaining temporary revegetation were apparent. No problems with riprap were noted as in past reviews.

Procurement Review

The purpose this study was to evaluate current procurement practices and determine if they were being conducted according to the approved rules, policies, and procedures of WVDEP. The review determined that WVDEP administered its procurement operations according to the Procurement Procedures Manual, Section 5A-3-1, of the West Virginia Code, and 148 CSR 1. Accordingly, by following the procedures outlined in the manual, design and construction costs were found to be reasonable, necessary, and allocable to the grants. In addition, sufficient internal controls were in place, from the initial procurement request, through review of bids, to contract award for both the design and construction contracts, to rely on the system. Several different people from several different divisions are involved in this process. However, certain procedural exceptions were found and noted in our report. These exceptions include a requirement to make sure that all required forms are included in design cost proposals and that all manual references are current. The WVDEP plans to update the manual, as appropriate, at the same time other changes to the manual are being made.

Appendix A - Tabular Summaries

The following tables present data pertinent to mining operations and State and Federal regulatory and AML activities within West Virginia. They also summarize funding provided by OSM and WVDEP staffing. Unless otherwise specified, the reporting period for the data contained in all tables is October 1, 1998, to September 30, 1999. Additional data used by OSM in its evaluations of West Virginia s performance is available for public review in evaluation files maintained by CHFO.

TABLE 1

COAL PRODUCTION
(Millions of short tons)

Period	Surface mines	Underground mines	Total
Coal production[A] for entire State:			
Calendar Year			
1996	55.4	118.3	173.7
1997	57.3	120.6	177.9
1998	54.7	118.0	172.7
	167.4	356.9	524.3

[A] 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

WEST VIRGINIA INSPECTABLE UNITS
As of September 30, 1999

Coal mines and related facilities	Number and status of permits								Insp. Unit[D]	Permitted acreage[A] (hundreds of acres)		
	Active or temporarily inactive		Inactive Phase II bond release		Abandoned		Totals					
	IP	PP	IP	PP	IP	PP	IP	PP		IP	PP	Total
STATE and PRIVATE LANDS — REGULATORY AUTHORITY: STATE												
Surface mines	0	692	4	73	12	123	16	888	904.0	10.7	2,049.8	2,060.5
Underground mines	0	934	0	48	2	132	2	1,114	1,116	0.3	317.2	317.5
Other facilities	0	566	1	16	3	60	4	642	646	0.5	417.0	417.5
Subtotals	0	2,192	5	137	17	315	22	2,644	2,666	11.5	2,784.0	2,795.5
FEDERAL LANDS — REGULATORY AUTHORITY: STATE												
Surface mines	0	1	0	0	0	0	0	1	1	0	0.2	0.2
Underground mines	0	3	0	1	0	1	0	5	5	0	0.6	0.6
Other facilities	0	1	0	3	0	0	0	4	4	0	0.5	0.5
Subtotals	0	5	0	4	0	1	0	10	10	0	1.3	1.3
ALL LANDS[B]												
Surface mines	0	693	4	73	12	123	16	889	905	10.7	2,050.0	2,060.7
Underground mines	0	937	0	49	2	133	2	1,119	1,121	0.3	317.8	318.1
Other facilities	0	567	1	19	3	60	4	646	650	0.5	417.5	418.0
Totals	0	2,197	5	141	17	316	22	2,654	2,676	11.5	2,785.3	2,796.8

Average number of permits per inspectable unit (excluding exploration sites) 1

Average number of acres per inspectable unit (excluding exploration sites) 104.5

Number of exploration permits on State and private lands: . . 0 On Federal lands: 0 [C]

Number of exploration notices on State and private lands: . . . 330 On Federal lands: 0 [C]

IP: Initial regulatory program sites.
PP: Permanent regulatory program sites.

[A] When a unit is located on more than one type of land, includes only the acreage located on the indicated type of land.

[B] 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.

[C] 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.

[D] Inspectable Units includes multiple permits that have been grouped together as one unit for inspection frequency purposes by some State programs.

TABLE 3

WEST VIRGINIA PERMITTING ACTIVITY
As of September 30, 1999

Type of application	Surface mines			Underground mines			Other facilities			Totals		
	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres[A]	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres
New permits	31	15	5,749	29	26	893	12	6	395	72	47	7,037
Renewals	34	36	12,696	75	109	5,130	59	86	7,729	168	231	25,555
Transfers, sales and assignments of permit rights	xx	61		xx	124		xx	49		xx	234	
Small operator assistance	3	0		1	1		0	0		4	1	
Exploration permits	0	0		0	0		0	0		0	0	
Exploration notices[B]		--[B]			--[B]			--[B]			142	
Revisions (exclusive of incidental boundary revisions)		191			172			90			453	
Incidental boundary revisions		78	79		141	598		44	312		263	989
Totals	68	381	18,524	105	573	6,621	71	275	8,436	244	1,371	33,581

[A] Includes only the number of acres of proposed surface disturbance.

[B] State does not differentiate between surface, underground, and other. Involves removal of less than 250 tons of coal and does not affect lands designated unsuitable for mining.

[XX] Information not available from State data.

TABLE 4

OFF-SITE IMPACTS

RESOURCES AFFECTED			People			Land			Water			Structures		
DEGREE OF IMPACT			minor	moderate	major	minor	moderate	major	minor	moderate	major	minor	moderate	major
TYPE OF IMPACT AND TOTAL NUMBER OF EACH TYPE	Blasting	16	7			5			1			3		
	Land Stability	60	3			41	1	2	4			9		
	Hydrology	158	1			10			144	2		1		
	Encroachment	23	2			17		1	1			2		
	Other													
	Total	257	13	0	0	73	1	3	150	2	0	15	0	0

OFF-SITE IMPACTS ON BOND FORFEITURE SITES

RESOURCES AFFECTED			People			Land			Water			Structures		
DEGREE OF IMPACT			minor	moderate	major	minor	moderate	major	minor	moderate	major	minor	moderate	major
TYPE OF IMPACT AND TOTAL NUMBER OF EACH TYPE	Blasting													
	Land Stability	9				8		1						
	Hydrology *	67							8	30	29			
	Encroachment													
	Other													
	Total	76	0	0	0	8	0	1	8	30	29	0	0	0

* Note - Water: Minor Removed 10, Added 6 = 8
Moderate Removed 16, Added 4 = 30
Major Removed 3, Added 1 = 29

TABLE 5

ANNUAL WEST VIRGINIA MINING AND RECLAMATION RESULTS

Bond release phase	Applicable performance standard	Acreage released during this evaluation period
Phase I	Approximate original contour restored Topsoil or approved alternative replaced	2,361
Phase II	Surface stability Establishment of vegetation	4,999
Phase III	Postmining land use/productivity restored Successful permanent vegetation Groundwater recharge, quality and quantity restored Surface water quality and quantity restored	10,915

	Bonded Acreage Status[A]	**Acres**
	Total number of bonded acres at end of last review period (September 30, 1998)[B]	287,120
	Total number of acres bonded during this evaluation year	8,026
	Number of acres bonded during this evaluation year that are considered remining, if available	N/A
	Number of acres where bond was forfeited during this evaluation year (also reported this acreage on Table 7)	1,028.13

[A] Bonded acreage is considered to approximate and represent the number of acres disturbed by surface coal mining and reclamation operations.

[B] Bonded acres in this category are those that have not received a Phase III or other final bond release (State maintains jurisdiction).

TABLE 6

WEST VIRGINIA BOND FORFEITURE ACTIVITY

(Permanent Program Permits)

	Number of Sites	Dollars	Disturbed Acres
Bonds forfeited as of September 30, 1998 [A]	287	17,136,511	10,819[C]
Bonds forfeited during EY 1999	23	1,155,891	
Forfeited bonds collected as September 30, 1998 [A]	230	5,722,106	8,924
Forfeited bonds collected during EY 1999	19	578,057	503
Forfeiture sites reclaimed during EY 1999	11	599,508 [B]	371[D]
Forfeiture sites repermitted during EY 1999	0		0
Forfeiture sites unreclaimed as of September 30, 1999	296		11,446[C]
Excess reclamation costs recovered from permittee	0	0	
Excess forfeiture proceeds returned to permittee	0	0	

[A] Includes data only for those forfeiture sites not fully reclaimed as of this date.

[B] Cost of reclamation, excluding general administrative expenses.

[C] Permitted acres.

[D] Disturbed acres.

TABLE 7

WEST VIRGINIA STAFFING
(Full-time Equivalents at End of Evaluation Year)

Function	EY 1999
Abandoned Mine Land Program Total	68.5
Regulatory program	
Permit review	42
Inspection	69
Other (administrative, fiscal, personnel, etc.)	141
TOTAL FOR REGULATORY PROGRAM	252

TABLE 8

FUNDS GRANTED TO WEST VIRGINIA BY OSM

(Millions of Dollars)

EY 1999

Type of Grant	Federal Funds Awarded	Federal Funding As a Percentage Of Total Program Costs
Administration and Enforcement	7,373,026	50%
Small Operator Assistance	541,905	100%
Totals	7,914,931	

TABLE 9

ABANDONED MINE LAND RECLAMATION
NEEDS AND ACCOMPLISHMENTS SINCE PROGRAM APPROVAL

Problem Type	Units	Unfunded	Funded	Completed	Total
Priority 1 & 2 (Protection of public health, safety, and general welfare)					
Clogged streams	Miles	23.0	0.5	40.0	63.5
Clogged stream lands	Acres	163.8	0.0	159.0	322.8
Dangerous highwalls	Lin. Feet	1,372,766.0	4,800.0	215,782.0	1,593,348.0
Dangerous impoundments	Count	680.0	5.0	305.0	990.0
Dangerous piles & embankments	Acres	1,814.0	147.0	4,004.0	5,965.0
Dangerous slides	Acres	344.0	2.0	431.0	777.0
Gases: hazardous/explosive	Count	0.0	0.0	4.0	4.0
Hazardous equip. & facilities	Count	794.0	14.0	430.0	1,238.0
Hazardous water bodies	Count	21.0	1.0	8.0	30.0
Industrial/residential waste	Acres	7.0	1.0	34.0	42.0
Portals	Count	1,724.0	20.0	1,858.0	3,602.0
Polluted water: agric. & indust.	Count	135.0	1.0	29.0	165.0
Polluted water: human consumption	Count	1,812.0	19.0	1,034.0	2,865.0
Subsidence	Acres	751.0	30.0	240.0	1,021.0
Surface burning	Acres	83.0	11.0	419.0	513.0
Underground mine fires	Acres	78.0	0.0	18.0	96.0
Vertical openings	Count	147.0	1.0	121.0	269.0
Priority 3 (Environmental restoration)					
Benches	Acres	222.0	0.0	27.0	249.0
Dumps	Acres	50.0	0.0	2.0	52.0
Equipment/facilities	Count	141.0	0.0	9.0	150.0
Gob piles	Acres	1,887.0	0.0	241.0	2,128.0
Highwalls	Feet	2,530,362.0	0.0	24,474.0	2,554,836.0
Haul roads	Acres	14.0	0.0	0.0	14.0
Mine openings	Count	31.0	0.0	9.0	40.0
Pits	Acres	47.0	0.0	11.0	58.0
Spoil areas	Acres	712.0	0.0	204.0	916.0
Slumps	Acres	35.0	0.0	0.0	35.0
Slurry ponds	Acres	13.0	0.0	0.0	13.0
Water problems	Gal./min.	14,926.0	75.0	722.0	15,723.0
Other	-				

NOTE: All data in this table are taken from the Abandoned Mine Land Inventory System (AMLIS).

Appendix B

State Comments on EY 1999 Annual Oversight Evaluation Report

Appendix C

OSM Response to State Comments

WVDEP General Comment

Overall the report is accurate but it does not reflect the effect that the December 23, 1998, Settlement Agreement had on the agency s time and resources. Also, the report failed to mention the additional conditions and requirements for operations with valley fills imposed only upon West Virginia by the Federal agencies that are not being required of other states.

Response to WVDEP General Comment

In response to this comment, we have added a section dealing with staffing in the Issues, section of this report and a section dealing with litigation impacts under Section IV, Litigation. The concern about consistency of requirements between coal producing states is currently being reviewed at the Regional Level by the Appalachian Regional Management Council. Resolution of this comment is beyond the scope of this report.

WVDEP Comment # 1

Perimeter Study - In a document dated March 9, 2000, the WVDEP has submitted a plan and actions to be taken to address the items specified in the Study. WVDEP is requesting that the letter be made part of the annual report.

Response to WVDEP Comment # 1

We have included your March 9, 2000, response to our Perimeter Study in Appendix B, State Comments on The Report. We have amended the body of the report to include a reference to this response.

WVDEP Comment # 2

Program Amendment Status/Maintenance of the Approved Program. It was WVDEP s intent to resolve most of the outstanding issues during this evaluation year. However, as noted in the report, the mountaintop mining litigation has affected the resources WVDEP could have devoted to them. WVDEP is in agreement that resolution of these issues be one of the top priorities for the upcoming year.

The WVDEP has completed an analysis of the outstanding required regulatory program amendments. We are in the process of preparing our response and a copy will be sent to you in the near future.

Response to WVDEP Comment # 2

The response is consistent with the language in this report. We will continue to work with WVDEP in EY 2000 to resolve these outstanding required regulatory program amendments. As mentioned in Comment 1, we acknowledge that litigation activities have had an impact on State resources.

WVDEP Comment # 3

Alternative Bonding System Adequacy - The WVDEP is on the record as stating this is a national issue in which OSM needs to initiate rulemaking. As you are aware, unlike West Virginia, neither the Federal law nor the other coal producing states have a mechanism in the law for treatment of water on bond forfeited sites. WVDEP and OSM have been working on methods to

address this issue using the current rules. Until such requirement completes the rulemaking process, OSM should not comment on the adequacy of the Special Reclamation Fund as it relates to treatment of water.

Response to WVDEP Comment # 3

OSM clarified the report to acknowledge WVDEP assistance in OSM s efforts to develop options for all states. However, OSM does not concur with other suggestions for the following reasons:

(1) OSM s assertion regarding the inadequacies of the West Virginia bond program are based on factual data without consideration of further water treatment.

(2) OSM is addressing concerns with water issues on a national level.

(3) The Surface Mining Control and Reclamation Act (SMCRA) does provide this authority.

1. Status of The West Virginia Special Reclamation Fund and Associated Reclamation

The report reflects data gathered and analyzed jointly with WVDEP. There was no speculation on future costs of additional sites with AMD. Projections in the report were only based on current expenditures.

Whether or not OSM includes water treatment as a bond forfeiture program liability in determining the adequacy of the State s Alternative Bonding System, does not change the overall finding that the current rate of land reclamation for bond forfeited sites is unacceptable. Consequently, landowners are not able to anticipate their land being reclaimed in a reasonable period of time after a permit is revoked and the bond forfeited. It is estimated that at the State s previous (1996/1997) rate of expenditure (including costs to treat water at five bond forfeiture sites) it will take more than 20 years to reclaim existing sites.

Recently, the State proclaimed to OSM that it was making significant progress in managing its bond forfeiture land reclamation activities. However, it has also experienced recent forfeitures that may substantially impact its ability to continue this trend. OSM is open to further review of the actual status of the fund but wishes to include full consideration of AMD liabilities for any future effort.

2. OSM is Working On This Issue On a National Level

In March 1997, OSM issued a National Hydrologic Protection Plan to clarify policy goals and objectives for correcting, preventing, and controlling acid/toxic drainage. This guidance also addressed the financial responsibility associated with AMD and the establishment of adequate financial mechanisms to ensure continued treatment of such discharges. The plan is accessible on OSM s homepage at www.osmre.gov

3. SMCRA Provides The Legal Authority To Address This Issue

Section 509 (a) of the Surface Mine Control and Reclamation Act requires that each permittee post a performance bond conditioned upon faithful performance of all the requirements of the Act and permit. Paragraph (b) of this section of the Act specifies that the amount of the bond shall be sufficient to assure the completion of the reclamation plan if the work had to be performed by the regulatory authority in the event of forfeiture. The hydrologic reclamation

plan is part of the overall reclamation plan to which this section refers. A prediction of AMD would doom issuance of an initial permit, but not a permit revision necessitated by the development of unanticipated acid/toxic discharges during mining and reclamation. When unanticipated pollution discharges occur, the policy statement and OSM regulations (30 CFR 800.15 (a)) both require that the regulatory authority adjust the bond to fully cover abatement costs including estimated treatment expenses. Furthermore, section 519 (b) of the Act provides that whenever a bond release is requested, the regulatory authority must conduct an inspection to evaluate the reclamation work performed, including whether pollution of surface or subsurface water is occurring, the probability of continuance of future occurrence of such pollution, and the estimated cost of abating such pollution. Therefore there is no doubt that, under SMCRA, the permittee must provide a financial guarantee to cover treatment of postmining discharges when such discharges develop and require treatment. Again, Section 509 (b) of the Act specifies that the amount of the bond shall be sufficient to assure the completion of the reclamation plan if the work had to be performed by the regulatory authority in the event of forfeiture.