

Office of Surface Mining

**Grants and Oversight Team
Mid-Continent Regional Coordinating Center**

Annual Evaluation Summary Report

for the

Regulatory and Abandoned Mine Land Programs

Administered by the Land Reclamation Program

of

Missouri

for

Evaluation Year 2000

(October 1, 1999, to September 30, 2000)

November 2000

EXECUTIVE SUMMARY

During the 2000 Evaluation Year (EY), the Office of Surface Mining (OSM), Grants and Oversight Team (GOT) conducted oversight evaluations of the Missouri Department of Natural Resources, Land Reclamation Program (MLRP) Regulatory and Abandoned Mine Land (AML) programs. The oversight studies focused on the success of the MLRP in meeting the Surface Mining Control and Reclamation Act of 1977 (SMCRA) goals for environmental protection and prompt, effective reclamation of land mined for coal. A Partnership Plan in the form of a Performance Agreement (PA) was cooperatively developed by GOT and MLRP to tailor the oversight activities to the unique conditions of the State program. The purpose for the oversight activities was to identify the need for and then provide financial, technical, and other program assistance to strengthen the State program.

Studies in the areas of off-site impacts, reclamation success, and customer service were conducted by GOT in support of OSM's national initiatives. These include the following studies.

- * □ **OFF-SITE IMPACTS** - Data on offsite impacts were collected during GOT inspections and from State inspection records, Notices of Violation, and assessment records. Nineteen off-site impacts were identified. Thirteen of the off-site impacts were on bond forfeiture sites, and six off-site impacts were identified on active sites. Approximately 79% of the Inspectable Units (IU) that were inspected were free from off-site impacts. Because neither the State nor OSM conducted inspections at some of the forfeited sites, the number of forfeited IUs free of off-site impacts can not be accurately determined. Four off-site impacts were eliminated during EY 2000.
- * □ **RECLAMATION SUCCESS** - Of the eleven bond release inspections completed by the MLRP, OSM participated on two inspections. Phase III bond release was granted for 1,093.53 acres. This is approximately three times the number of acres receiving Phase III bond release in the previous year. GOT concurred with MLRP action on these releases.
- * □ **CUSTOMER SERVICE - CITIZEN COMPLAINTS** - The review of customer service determined that MLRP properly notifies complainants of their rights concerning confidentiality and attendance during inspections. However, it was found that pertinent information is not always entered on the citizens complaint tracking sheet or in the associated electronic citizen complaint data base. Enforcement documents and inspection reports resulting from citizen complaints are routinely sent to the operators. With some minor procedural and tracking system changes, the overall system will improve the effectiveness of the program.

General oversight topic reviews were conducted for both the State Regulatory and AML programs. The following reports were completed.

- * □ **IDENTIFICATION AND CITATION OF VIOLATIONS** - An evaluation was made of the identification and citation of violations. OSM determined that the MLRP's ability to identify and cite violations improved during EY 2000. However, the enforcement program can be strengthened by issuing more enforcement actions instead of warnings.
- * □ **AML RESPONSE TO PUBLIC CONCERNS** - MLRP has a computer-based public inquiry tracking system that operates as an integral part of the State AML program which facilitates a prompt and effective response to public concerns.
- * □ **AML ON-THE-GROUND RECLAMATION (RECLAMATION SUCCESS)**
In this study, it was determined that the program operates in an effective manner. MLRP conducts a continuous reclamation success monitoring process along with frequent inspections and maintenance of projects where needed. The State continues to abate all AML hazards on completed projects. Moreover, beneficial uses of the reclaimed areas are created in an efficient and cost-effective manner.
- * □ **ALTERNATIVE ENFORCEMENT - SHOW CAUSE ORDERS/ CONSENT AGREEMENTS** - A follow-up study was completed on Alternative Enforcement - Show Cause Orders/ Consent Agreements. Missouri is conducting pattern of violation reviews and issuing Show Cause Orders as required by the approved state program. Increased abatement and reclamation work at one site has resulted from strict enforcement of a consent agreement.
- * □ **AML EMERGENCY PROGRAM - TIMELINESS AND EFFECTIVENESS OF COMPLAINT INVESTIGATIONS** - Five potential emergency complaint investigations were conducted. In each case, the state determined the complaint to be a non-emergency. MLRP consistently responded to potential AML emergency complaints in a timely and effective manner. All emergency procedures used to review each complaint were conducted in accordance with OSM's emergency directives and the approved State Reclamation Plan.
- * □ **CUSTOMER SERVICE - APPLICANT/VIOLATOR SYSTEM DATA MAINTENANCE** - OSM conducted extensive Applicant/Violator System (AVS) training for the MLRP staff in March 1999. Following this training, the quality of AVS requirements and information improved in timeliness, accuracy, and completeness.

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2000 MISSOURI ANNUAL EVALUATION REPORT

I. Introduction

The SMCRA created 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 have been approved by OSM as meeting the minimum standards specified by SMCRA. This report contains summary information regarding the MLRP and the effectiveness of the Missouri program in meeting the applicable purposes of SMCRA as specified in Section 102. The evaluation period covered by this report is October 1, 1999, to September 30, 2000.

The primary focus of the OSM oversight policy for EY 2000 is an on-the-ground results oriented strategy that evaluates the end result of State program implementation; i.e., the success of the State program in ensuring that areas off the mine site are protected from impacts during mining and that areas on the mine site are contemporaneously and successfully reclaimed after mining activities are completed. The policy emphasizes a shared commitment between OSM and the States to ensure the success of SMCRA through the development and implementation of a performance agreement. Also, the policy continues to encourage public participation as part of the oversight strategy. Besides the primary focus of evaluating end results, the oversight guidance makes clear OSM's responsibility to conduct inspections to monitor the State's effectiveness in ensuring compliance with SMCRA's environmental protection standards.

To further the idea of continuous oversight, this annual report is structured to report on OSM's and Missouri's progress in conducting evaluations and completing oversight activities and on their accomplishments at the end of the evaluation period. Background information and finding reports for the program elements evaluated during the period are available for review and copying at OSM's Mid-Continent Regional Coordinating Center (MCRCC) at 501 Belle Street, Alton, Illinois, 62002.

The following list of acronyms are used in this report:

ACSI	Appalachian Clean Streams Initiative
AMD	Acid Mine Drainage
AML	Abandoned Mine Land
AMLIS	Abandoned Mine Land Inventory System
AVS	Applicant/Violator System
BTU	British Thermal Unit
EPA	Environmental Protection Agency
EY	Evaluation Year
GOT	Grants and Oversight Team
IU	Inspectable Unit
MCRCC	Mid-Continent Regional Coordinating Center
MLRP	Missouri Land Reclamation Program

MLRC	Missouri Land Reclamation Commission
MSHA	Mine Safety and Health Administration
PA	Performance Agreement
OSM	Office of Surface Mining
SMCRA	Surface Mining Control and Reclamation Act of 1977
TIPS	Technical Information Processing Systems
U.S.	United States

II. Overview of the Missouri Coal Mining Industry

Missouri's coal ranges from lignite to high volatile A bituminous. The demonstrated coal reserve base is estimated to be six billion tons, or 1.26 percent of the United States (U.S.) coal reserves. The coal-bearing areas cover about 23,000 square miles, or 33 percent of the State. Twelve of the 20 coal seams have been actively mined. The coal has a high heat value averaging 22 million British Thermal Units (BTU) per short ton. The sulphur content of 95 percent of Missouri's reserves is relatively high, greater than 2.5 pounds of sulphur per million BTU and averaging four percent by weight. Economics limit production to beds greater than 28 inches thick. Coal production is currently confined to the southwest portion of the State.

Missouri was the first state west of the Mississippi River to produce coal for commercial use. Coal deposits were first mined in the late 1840's. Most of the early coal mines in the State were underground. Surface mining began in the mid-1930's, and since the 1960's has accounted for virtually all the coal produced in the State. Missouri's coal production has declined since reaching peak production of nearly seven million tons in 1984. A sharp decline to 627,774 tons occurred in 1993, down from the 1992 production level of 2,908,012 tons. This reduction resulted from the State's largest operator ceasing production in early 1993. Since then, annual production has fluctuated, with approximately 365,000 tons being produced in 1999. Missouri helps supply coal to the Midwestern market for blending with western coal. The current primary use of the coal is for power generation.

Approximately 67,000 acres were affected by coal mining in 48 Missouri counties before enactment of the SMCRA. The resulting hazardous conditions recorded in OSM's Abandoned Mine Land Inventory System (AMLIS) includes the following: 94,031 feet of dangerous highwalls; 47 portals; 685 acres of dangerous piles and embankments; 634 acres of surface subsidence; 157 vertical openings; and 63 incidents of polluted water that adversely affects public health, safety, or welfare.

III. Overview of Public Participation in the Program

Missouri and OSM consider the bi-monthly Missouri Land Reclamation Commission (MLRC) public meetings the principal forum for participation from industry, landowners, citizen groups, and other interested parties. OSM did not sponsor any public meetings in Missouri during EY 2000. However, OSM and the MLRP plan to jointly sponsor an open public meeting in the State's active mining region in EY 2001.

Throughout the year, MLRP personnel attended public gatherings and conferences and set up displays explaining MLRP's responsibilities and accomplishments. Among the attended events were the Missouri State Fair at Sedalia, Earth Day Celebration held on the Capitol grounds in Jefferson City, and a watershed conference at Lake of the Ozarks.

On May 10, 2000, the MLRP conducted a tour of abandoned lead/zinc mining areas in the Joplin area. The purpose of the tour was to allow OSM personnel and other interested parties to view hazards associated with the past lead/zinc mining. Twelve people, including a member of the Joplin Chamber of Commerce, attended the tour.

On July 26, 2000, the MLRP conducted a tour of active mining sites and the Upper Cedar Creek Clean Streams/319 Project. The Upper Cedar Creek Clean Streams/319 Project will utilize Appalachian Clean Stream Initiative (ACSI) funds, Environmental Protection Agency (EPA) 319 funds, and Missouri's AML funds to address water quality problems associated with acidity and sulfates in Cedar Creek. The intent of the tour was to inform the MLRC members and other interested parties on mining issues and problems within the State. Approximately 40 people attended the tour.

The State continues to maintain its part in AMLIS. Funded and completed project data are entered at appropriate times. New problem sites are entered into the database as they are identified. Missouri maintains internal systems to track contract obligations and expenditures, public inquiries, and project ranking and selection data. In EY 2000, the State received numerous inquiries from the public related to the AML program. All inquiries were handled and addressed in a timely and professional manner. About 150 contacts were made with landowners of AML reclamation project sites.

IV. Major Accomplishments/Issues/Innovations

Abandoned Mine Land Program

Missouri is an active participant in the ACSI. The State is currently working on two ACSI projects including Upper Cedar Creek and Old Bevier. To date, Missouri has received grant monies totaling \$362,981 to mitigate acid mine drainage (AMD) at both sites.

During the evaluation year, work on the Upper Cedar Creek ACSI/319 Project consisted of construction of access roads and liming of acid forming materials. Additionally, 31 acres of barren spoil were planted to warm-season, native grasses during the spring of 2000. Three monitoring wells were installed to assist in water quality monitoring. Design work associated with the project to mitigate acid mine drainage has been completed. This design will include the construction of four wetland treatment cells, 11 stream bank repairs or pond restoration work areas and vegetation of approximately 60 acres of mine spoil. Approximately 1,500 cubic yards of organic matter have been stockpiled for use in wetland construction. Bids for the project were opened on September 28, 2000. Construction work is expected to begin in October and continue through September 2001.

The objective of this project is to mitigate acid mine damage and address environmental concerns listed in Section 303 (d) of the Clean Water Act. Funds for the project are coming from the National Abandoned Mine Land Fund, OSM ASCI grants, and an EPA 319 grant. Public outreach and interagency cooperation are major components of these grants. The MLRP has entered into a cooperative agreement with the U. S. Geological Survey-Biological Resources Division to monitor Cedar Creek ecosystem recovery. The U. S. Department of Agriculture-Natural Resources Conservation Service, Missouri Department of Conservation, Department of Natural Resources Water Pollution Control Program, EPA and OSM are environmental agency partners. Landowners and the Columbia Audubon Society are also involved in public outreach.

To date, \$110,384 of OSM ACSI Funds have been utilized on the project area. This includes \$22,130 of FY 1998 funds and \$88,254 of FY 1999 funds. Approximately \$75,000 of EPA 319 funds will be utilized on the project.

The Old Bevier ACSI site is a 1992 AML project that was designed to eliminate dangerous highwalls and to abate water quality problems, including AMD. A wetland created to serve as a treatment facility was only partially successful. To stop degradation of the water quality in the adjacent creek, the treatment facility is currently being re-designed and will be re-constructed utilizing concepts that increase the likelihood of abating the AMD problem. The wetland was drained this past summer and a temporary water treatment system was installed to treat AMD until permanent facilities are constructed. The State plans to put the project out for bids early in EY 2001. OSM is providing the State with technical support, and the Missouri National Guard is providing in-kind services on this project.

Missouri completed five AML emergency investigations related to possible subsidence during the evaluation year. No emergencies were declared this year, and none have been declared since Missouri assumed the emergency program on July 1, 1998.

Regulatory Program

During EY 2000, the MLRP initiated bond forfeiture reclamation at three Universal Coal and Energy sites including a preparation plant area, a railroad load-out facility, and a dragline erection site. Reclamation by the surety was initiated at the North American Resources Silver Creek mine site.

Previous PAs included a long standing unresolved issue in that a significant downward trend in the State's ability to cite all observed violations was identified for a number of years. This topic was reviewed in EY 2000, and OSM found the MLRP's performance has continued to improve over the last several years. However, in some instances, the MLRP still gives operators warnings instead of issuing NOV's when violations are observed.

OSM reviews conducted in EY 1997 and EY 1999 on Missouri's use of alternative enforcement to obtain compliance with environmental requirements found that use of the consent agreement

process, as allowed by Missouri's regulations, had not achieved timely operator compliance. This topic was again reviewed in EY 2000. Although the population sample of consent agreements was small, OSM found that strict enforcement of consent agreement terms by the State during the review period was producing positive results, and appropriate reclamation and violation abatement was occurring. OSM will continue to monitor the State's use of alternative enforcement during EY 2001, and discuss the subject with the State during the evaluation year.

During EY 2000, Missouri submitted revisions to an informal amendment that responds to OSM's June 17, 1997, 30 CFR Part 732 letter relating to multiple topics and to the remaining 14 outstanding State program amendments required at 30 CFR 925.16. By letter dated August 18, 2000, the State notified OSM that its final Orders of Rulemaking would be published in the Missouri Register during September 2000. The State indicated that a formal program amendment would be submitted to OSM after the Orders of Rulemaking were published.

V. Success in Achieving the Purposes of SMCRA as Determined by Measuring and Reporting End Results

To further the concept of reporting end results under Title V of SMCRA, the findings from performance standard and public participation evaluations are being collected for a national perspective in terms of the number and extent of observed off-site impacts, the number and percentage of inspectable units free of off-site impacts, the number of acres that have been mined and reclaimed and which meet the bond release requirements and have been released for the various phases of reclamation, and the effectiveness of customer service provided by the State.

The overall measure of excellence in the AML (Title IV) program is the degree to which states are successful in achieving reclamation goals. One of the primary goals of AML topical reviews, referred to as Enhancement and Performance Reviews, is to improve upon this success. These reviews document each state's ability to achieve desired outcomes. Emphasizing outcomes allows OSM to justify when the end result is not being achieved and establish a basis for reaching agreement with (and providing assistance to) a state to improve its program. Individual topic reports that provide additional details on how the following evaluations and measurements were conducted are available at the MCRCC in Alton, Illinois.

A. Off-site Impacts

Pursuant to REG-8, OSM annually evaluates and reports on the effectiveness of the MLRP's regulatory program in protecting the environment and the public from off-site impacts resulting from coal mining activities and reclamation operations. Off-site impact data are a measurement of the State's on-the-ground success in preventing or minimizing off-site impacts. The goal, however, is for each inspectable unit to have minimal or no off-site impact.

An off-site impact is defined as anything resulting from a surface coal mining or reclamation activity or operation that causes a negative effect on resources (people, land, water, structures).

The State collected off-site impact information during its inspections throughout the evaluation year, and OSM conducted 38 inspections to verify state information and check for off-site impacts. Inspection and enforcement files were also reviewed to identify the existence of off-site impacts. A total of 19 off-site impacts were identified at 12 of the 58 IUs (Table 4). Six off-site impacts were found at four of the 28 active IUs. Twenty-four, or nearly 86 percent, of these IUs were free of off-site impacts. State and Federal inspections identified 13 off-site impacts at 8, or about 27 percent, of the 30 IUs where bond had been forfeited. Because neither the State nor OSM conducted inspections at some of these sites, the number of forfeited IUs free of off-site impacts can not be determined for EY 2000. The types of impacts recorded included one other, one blasting, one encroachment, two land stability, and 14 hydrologic. The impacts affected people, structures, land, and water resources. Most of the off-site impacts at both active and inactive sites were classified as moderate. Only one impact was considered to have a major affect. In this case, erosion was affecting prime farmland. Seven of the impacts were identified prior to EY 2000. Four off-site impacts were eliminated during the year.

The objective of this measurement is that the MLRP and OSM direct efforts to decrease the occurrence of off-site impacts. Both the State and OSM are working to achieve this objective, and it is addressed in OSM's PA with the State. However, from EY 1999 to EY 2000, the number of off-site impacts increased by five. To address this increase, a more concentrated effort will be made in EY 2001 to inspect all IUs, especially bond forfeiture sites, and to determine priorities in addressing the off-site impacts. OSM will continue to provide technical assistance to the State by supplying reclamation cost estimates for some of the bond forfeiture sites. Timely reclamation of such sites will eliminate many of the off-site impacts and prevent new impacts from occurring.

B. Reclamation Success

OSM conducted two joint bond release inspections. One inspection concerned a request for vegetation release on 37 acres of an Interim Program permit. All applicable standards were met and the bond was released. The other inspection was related to a request for Permanent Program Phase III bond release on 250.3 acres. Several minor deficiencies were identified during the inspection. The operator subsequently corrected the deficiencies and the release request was approved by the MLRC.

During EY 2000, Missouri approved Permanent program Phase I bond release on 1,099.40 acres, Phase II release on 164.00 acres, and Phase III release on 453.20 acres. All of this land was disturbed by mining operations, and the acreage released from Phase III bond equaled approximately 3.3 percent of the 13,617.00 acres of mined land under

bond at the beginning of EY 2000. A total of 345.00 newly permitted acres were placed under bond during EY 2000.

In addition to the bond released on mined land, MLRP granted complete release of bond on 603.33 acres that were bonded but never disturbed and an Interim program revegetation release on 37.00 acres. All of the EY 2000 releases combined amounted to a Permanent program equivalent of 1,702.73 acres of Phase I release, 804.33 acres of Phase II release, and 1,093.53 acres of Phase III release (Table 5).

Based on the joint inspections and other data sources, OSM believes the State program is requiring that bond release performance standards be met before approval of bond releases. Missouri's adherence to all applicable performance standards ensures successful reclamation.

C. Customer Service

To evaluate the effectiveness of Missouri's customer service, OSM conducted evaluations of components of both the MLRP's Regulatory and AML programs. For the Regulatory program, OSM conducted reviews of Missouri's handling of citizen complaints and maintenance of the AVS.

The evaluation concerning citizen complaints found that Missouri has developed a citizen complaint tracking sheet and an associated electronic citizen complaint database to enhance its customer service, but pertinent information is not always entered in either of the tracking systems. OSM also determined that Missouri properly notifies complainants of regulatory rights concerning confidentiality and attendance during inspections, but does not always provide written notification to citizens of the right to request informal and formal reviews.

Based on evaluation findings, OSM believes that Missouri has established the tracking systems necessary to effectively document citizen complaints, but changes to the tracking system format and minor procedural changes in handling complaints would improve the effectiveness of the State program in providing customer service.

The evaluation of Missouri's maintenance of the AVS found the State's use and operation of the AVS has greatly improved since OSM conducted an extensive training session for Missouri's permitting and enforcement staff in March 1999. Since that time, the quality of AVS information for Missouri has improved in timeliness, accuracy, and completeness. However, interviews with state staff revealed the State does not annually review Mine Safety and Health Administration (MSHA) information to verify permittee, operator, and MSHA number.

OSM reviewed Missouri's records to determine if the State effectively addresses public inquiries concerning its AML program. The review found that Missouri has a computer

based public inquiries tracking system that is used to track public requests for information, assistance, investigations, and public meetings. During EY 2000, four Congressional Office inquiries were received and addressed. Approximately 40 AML program information inquiries were responded to by Missouri's staff, and about 150 contacts were made with landowners of AML reclamation project sites. The MLRP also routinely corresponds with local, State and Federal agencies concerning AML matters.

OSM believes that Missouri follows the State's Reclamation Plan in its solicitation and consideration of public input, and has established and maintains a public inquiries tracking system that facilitates a prompt and effective response to public concerns.

D. Abandoned Mine Land Reclamation

This evaluation year, Missouri abated health and safety problems on four abandoned mine land sites by sealing three shafts, eliminating 2,200 feet of dangerous highwall and a hazardous water body, and mitigating acid mine drainage that was affecting an agricultural pond. Since the program was fully approved in 1982, Missouri has reclaimed 65,902 feet of dangerous highwalls, 26 portals, approximately 3 acres of subsidence, 120 vertical mine openings, 48 instances of polluted water, 1,491.8 acres that were contributing to 10.8 miles of clogged streams, and 142 acres of gob.

Missouri continues to design and construct AML reclamation projects in an efficient and environmentally sound manner and in accordance with project approval documents. Missouri is a minimum program state, receiving only \$1.5 million annually to operate its program. Projects are monitored and maintained to achieve long term stability and eventual release from State management. Missouri continues to carry out its AML Reclamation Success Management process, initiated during EY 1996. In this process, the reclamation project goals are stated up-front in the environmental assessment. The process also provides new mechanisms for evaluating design changes and change orders against previously defined goals of the project. This process is a significant aid in assuring that reclamation projects achieve long term success and stability.

VI. OSM Assistance

The MCRCC is available to provide support to the State through its Technology Development and Transfer Program. This program provides direct technical assistance in project design and analysis, permitting assistance, development of technical guidelines, and other technical training and support. The Technical Information Processing Systems (TIPS) provides hardware, software, training and systems support, development and facilitation of electronic permitting initiatives, electronic data exchanges, and dissemination of the newest computer technology. TIPS also includes the development and coordination of interactive forums, workshops, and technology outreach programs.

During EY 2000, OSM provided Missouri with the following assistance:

MCRCC prepared reclamation design and contract specifications for an AMD treatment project at the Old Bevier ACSI site. Final design drawings and cross-sections were completed and sent to the State in May. The State requested some minor enhancements that were completed in June. In July, the wetland was drained and a temporary water treatment system was installed to treat AMD until permanent facilities are constructed. The MLRP plans to put the project out for bids early in EY 2001.

MCRCC conducted an AML Inventory workshop for MLRP staff in Jefferson City. The workshop included field exercises and in-the-office training.

MCRCC staff provided technical support to Missouri by reviewing several blasting plans and by investigating and providing reports on two blasting related citizen complaints.

MCRCC provided Missouri assistance on an AML emergency investigation in St. Louis. Assistance involved research and interpretation of drilling results from a past St. Louis project and evaluation of those results in relation to a new subsidence complaint in the same neighborhood.

OSM provided the State the first installment of TIPS software for TIPS users desktop computers (NT Conversion). Missouri has received Arc/Info 8.0.2 and AutoCAD Map 2000 software and instructions on how to install the software to utilize the TIPS software servers at OSM's three Regional Coordinating Centers.

The TIPS NT Workstation provided by OSM in early EY 2000 is operational and providing AutoCAD serving, file sharing and storage capabilities for the State.

VII. General Oversight Topic Reviews

The following oversight topics were reviewed during EY 2000. The detailed finding reports are available at the MCRCC in Alton, Illinois.

A. Alternative Enforcement

This review was conducted to determine if the State is following the approved State program in its use of alternative enforcement and to evaluate the State's effectiveness using consent agreements to obtain environmental compliance. The review indicated that Missouri is conducting pattern of violation reviews and issuing Show Cause Orders as required by the approved State program. The study also found that increased abatement and reclamation work at one site is occurring due to the MLRP's strict enforcement of a consent agreement with the operator.

B. AML Emergency Program

This review was conducted to evaluate the timeliness of Missouri's emergency investigations and to determine if the State takes only those actions necessary to abate declared emergencies. The State received five complaints of possible emergency situations during the review period. State investigations of the complaints revealed none of the situations warranted declaration of an emergency. All of the complaints were investigated in a timely and professional manner, and emergency investigation procedures were conducted in accordance with the approved State Reclamation Plan.

C. Identification and Citation of Violations

This review was conducted to evaluate the effectiveness of the State program in identifying and citing observed violations. OSM concluded that Missouri's ability to identify and cite violations has improved each year since 1997. The enforcement program can be improved by issuing enforcement actions instead of warnings for all violations not corrected during an inspection.

Appendix A: Appendix A: Tabular Summaries of Data Pertaining to Appendix Reclamation, and Program Administration

These tables present data pertinent to mining operations, State and Federal regulatory activities, and the reclamation of abandoned mines within Missouri. They also summarize funding provided by OSM and Missouri staffing levels. Unless otherwise specified, the reporting period for the data contained in all tables is October 1, 1999, to September 30, 2000. Additional data used by OSM in its evaluation of Missouri's performance is available for review in the evaluation files maintained by the MCRCC Office in Alton, Illinois.

TABLE 1

COAL PRODUCTION (Millions of short tons)			
Period	Surface mines	Underground mines	Total
Coal production ^A for entire State:			
Annual Period			
1997	0.20	0.00	0.20
1998	0.37	0.00	0.37
1999	0.37	0.00	0.37

^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

INSPECTABLE UNITS As of September 30, 2000												
Coal mines and related facilities	Number and status of permits								Insp. Unit^D	Permitted acreage^A (hundreds of acres)		
	Active or temporarily inactive		Inactive		Abandoned		Totals					
	IP	PP	Phase II bond release									
			IP	PP	IP	PP	IP	PP		IP	PP	Total
STATE and PRIVATE LANDS REGULATORY AUTHORITY: STATE												
Surface mines	0	51	1	0	10	53	11	104	58	1	135	136
Underground mines	0	0	0	0	0	0	0	0	0	0	0	0
Other facilities	0	0	0	0	0	0	0	0	0	0	0	0
Subtotals	0	51	1	0	10	53	11	104	58	1	135	136
FEDERAL LANDS REGULATORY AUTHORITY: STATE												
Surface mines	0	0	0	0	0	0	0	0	0	0	0	0
Underground mines	0	0	0	0	0	0	0	0	0	0	0	0
Other facilities	0	0	0	0	0	0	0	0	0	0	0	0
Subtotals	0	0	0	0	0	0	0	0	0	0	0	0
ALL LANDS^B												
Surface mines	0	51	1	0	10	53	11	104	58	1	135	136
Underground mines	0	0	0	0	0	0	0	0	0	0	0	0
Other facilities	0	0	0	0	0	0	0	0	0	0	0	0
Totals	0	51	1	0	10	53	11	104	58	1	135	136
Average number of permits per inspectable unit (excluding exploration sites)										<u>2.0</u>		
Average number of acres per inspectable unit (excluding exploration sites)										<u>235.0</u>		
Number of exploration permits on State and private lands:					<u>1</u>		<u>1</u>		On Federal lands: <u>0</u> ^C			
Number of exploration notices on State and private lands:					<u>0</u>				On Federal lands: <u>0</u> ^C			
<p>IP : Initial regulatory program sites. PP : Permanent regulatory program sites.</p> <p>^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.</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 ^A	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres
New permits	0	1	205	0	0	0	0	0	0	0	1	205
Renewals	0	0	0	0	0	0	0	0	0	0	0	0
Transfers, sales and assignments of permit rights	0	0		0	0		0	0		0	0	
Small operator assistance	0	0		0	0		0	0		0	0	
Exploration permits	1	1		0	0		0	0		1	1	
Exploration notices ^B		0			0			0			0	
Revisions (exclusive of incidental boundary revisions)		111			0			0			111	
Incidental boundary revisions		0	0		0	0		0	0		0	0
Totals	1	113	345^C	0	0	0	0	0	0	1	113	205

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

^A Includes only the number of acres of proposed surface disturbance.

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

^C Includes 148 acres added by a permit revision.

**TABLE 4
OFF-SITE IMPACTS**

DEGREE OF IMPACT			RESOURCES AFFECTED												Total
			People			Land			Water			Structures			
			minor	moderate	major	minor	moderate	major	minor	moderate	major	minor	moderate	major	
TYPE OF IMPACT	Blasting	1	0	0	0	1	0	0	0	0	0	0	0	0	1
	Land Stability	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Hydrology	4	0	1	0	1	3	0	1	1	0	0	1	0	8
	Encroachment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Other	1	0	1	0	1	0	0	0	0	0	0	0	0	2
	Total	6	0	2	0	3	3	0	1	1	0	0	1	0	11

Total number of inspectable units: 28

Inspectable units free of off-site impacts: 24

OFF-SITE IMPACTS ON BOND FORFEITURE SITES

DEGREE OF IMPACT			RESOURCES AFFECTED												Total
			People			Land			Water			Structures			
			minor	moderate	major	minor	moderate	major	minor	moderate	major	minor	moderate	major	
TYPE OF IMPACT	Blasting	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Land Stability	2	0	0	0	0	2	0	0	1	0	0	0	0	3
	Hydrology	10	0	0	0	1	1	0	1	6	0	0	0	0	9
	Encroachment	1	0	0	0	0	0	1	0	1	0	0	0	0	2
	Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	13	0	0	0	1	3	1	1	8	0	0	0	0	14

Total number of inspectable units: 30

Inspectable units free of off-site impacts: 22

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

TABLE 5

ANNUAL STATE MINING AND RECLAMATION RESULTS		
Bond release phase	Applicable performance standard	Acreage released during this evaluation period^C
Phase I	* <input type="checkbox"/> Approximate original contour restored * <input type="checkbox"/> Topsoil or approved alternative replaced	1,702.73
Phase II	* <input type="checkbox"/> Surface stability * <input type="checkbox"/> Establishment of vegetation	804.33
Phase III	* <input type="checkbox"/> Post-mining land use/productivity restored * <input type="checkbox"/> Successful permanent vegetation * <input type="checkbox"/> Ground water recharge, quality and quantity restored * <input type="checkbox"/> Surface water quality and quantity restored	1,093.53
	Bonded Acreage Status^A	Acres
	Total number of bonded acres at end of last review period (September 30, 1999) ^B	13,617.00
	Total number of bonded acres during this evaluation year	345.00
	Number of acres bonded during this evaluation year that are considered remining, if available	0.00
	Number of acres where bond was forfeited during this evaluation year (also report this acreage on Table 7)	0.00
<p>^A Bonded acreage is considered to approximate and represent the number of acres disturbed by surface coal mining and reclamation operations.</p> <p>^B Bonded acres in this category are those that have not received a Phase III or other final bond release (State maintains jurisdiction).</p> <p>^C The Phase I total includes 603.33 acres of undisturbed land bond release. The Phase II and Phase III totals include 603.33 of undisturbed land bond release and 37 acres of Interim program revegetation bond release.</p>		

TABLE 6**STATE BOND FORFEITURE ACTIVITY****(Permanent Program Permits)**

	Number of Sites	Dollars	Disturbed Acres
Bonds forfeited as of September 30, 1999 ^A	9	4,154,529	5,825
Bonds forfeited during EY 2000	0	0	0
Forfeited bonds collected as September 30, 1999 ^A	9	3,601,629	5,825
Forfeited bonds collected during EY 2000	0	0	0
Forfeiture sites reclaimed during EY 2000	0	0 ^B	0
Forfeiture sites repermited during EY 2000	0		0
Forfeiture sites unreclaimed as of September 30, 2000	9		5,825
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.

TABLE 7

MISSOURI STAFFING (Full-time equivalents at end of evaluation year)	
Function	EY 2000
Regulatory Program	
Permit review	6.25
Inspection	5.15
Other (administrative, fiscal, personnel, etc.)	3.30
SUB-TOTAL	14.70
AML Program	12.20
TOTAL	26.90

TABLE 8

FUNDS GRANTED TO MISSOURI BY OSM (Millions of dollars) EY 2000		
Type of Grant	Federal Funds Awarded	Federal Funding as a Percentage of Total Program Costs
Administration and enforcement	.43	50
Small operator assistance	0.00	0.00
Totals	0.43	

Appendix B:

State Comments on Report



Roger B. Wilson
Governor • Stephen M. Mahfoud, Director

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176 Jefferson City, MO 65102-0176

File: OSM Oversight, ABS Solvency Report

November 27, 2000

Mr. John Coleman
U. S. Department of the Interior
Office of Surface Mining, Reclamation & Enforcement
Alton Federal Building, 501 Belle Street
Alton, IL 62002

Dear Mr. Coleman:

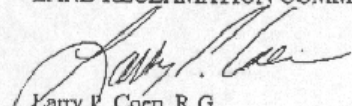
I have reviewed the draft annual report that your office prepared for the state of Missouri, along with the changes that you forwarded to me by email. I am satisfied with the report and have no comments or corrections to make about its contents.

I would comment that I appreciate the working relationship that has developed between your office and mine. While we certainly work toward continual improvement, we are pleased with the progress that has already been completed. Your office, as well as others in OSM, have played a role in making those changes.

Should you have need, please contact me at your convenience at (573) 751-4041.

Sincerely,

LAND RECLAMATION COMMISSION


Larry F. Coen, R.G.
Staff Director

LPC:slg

Enclosure

RECEIVED

NOV 27 2000

O.S.M. - MCRCC
ALTON, ILLINOIS



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