

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 2001

October 1, 2000, to September 30, 2001

November 2001

EXECUTIVE SUMMARY

During the 2001 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 off-site impacts were collected during GOT inspections and from State inspection records, Notices of Violation, and assessment records. Approximately 75 percent of the Inspectable Units (IU) that were inspected were free from off-site impacts. Eighteen off-site impacts were identified, which was one less than last year. Eleven of the off-site impacts were on bond forfeiture sites, and seven off-site impacts were identified on active sites. Four off-site impacts were eliminated during EY 2001.

- ! **RECLAMATION SUCCESS** – The Missouri program ensures reclamation success is achieved on all land prior to release of reclamation bond liability. During the evaluation year, approximately 1,097 acres received Phase III bond release. This total included 637 acres that were bonded but never disturbed. This represents approximately eight percent of the acres under bond in EY 2001.

- ! **CUSTOMER SERVICE - CITIZEN COMPLAINTS** - The review of customer service determined that MLRP properly notifies complainants of their rights concerning confidentiality and attendance during inspections. Pertinent information is appropriately 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. Changes made to Missouri's tracking system and minor procedural changes in handling citizen complaints has improved the effectiveness of the State program in providing customer service.

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 2001.

- ! **BOND FORFEITURE – PROCEDURES AND EFFECTIVENESS** – A bond forfeiture review was conducted to examine potential deficiencies identified in EY 1998 through EY 2001 in the bond forfeiture program. The review found that in many instances an excessive amount of time elapsed between the collection of the bond forfeiture funds and when actual reclamation was initiated. The review also identified a weakness in the State's program in pursuing other approved avenues in obtaining funds that could be used for reclamation on bond forfeiture sites.

- ! **PERMIT REVISIONS** – A joint OSM/MLRP team was formed to review Missouri's permit revisions. The purpose of the study was to determine why the MLRP received a high number of mine permit revisions compared to the number of active mine sites. The study revealed numerous in-put errors in the permit revision database. The review identified various options available to correct database problems and the need to take a new look at the State's mine permitting process.

- ! **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 and 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.

- ! **AML EMERGENCY PROGRAM - TIMELINESS AND EFFECTIVENESS OF COMPLAINT INVESTIGATIONS** - Four potential emergency complaint investigations were conducted. The investigations resulted in declaring two cases as emergencies and two cases as non-emergencies. 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 a timely manner and in accordance with OSM's emergency directives and the approved State Reclamation Plan.

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2001 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, 2000, to September 30, 2001.

The primary focus of the OSM oversight policy for EY 2001 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 encourages 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
DGLS	Division of Geology and Land Survey
EPA	Environmental Protection Agency
EY	Evaluation Year

GOT	Grants and Oversight Team
GIS	Geographic Information System
IU	Inspectable Unit
MCRCC	Mid-Continent Regional Coordinating Center
MLRP	Missouri Land Reclamation Program
MLRC	Missouri Land Reclamation Commission
MOU	Memorandum of Understanding
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

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' 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 436,000 tons being produced in calendar year 2000. 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: 99,611 feet of dangerous highwalls; 49 portals; 777 acres of dangerous piles and embankments; 634 acres of surface subsidence; 183 vertical openings; and 64 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. MLRP and OSM jointly sponsored an open public meeting in Butler, Missouri on February 14, 2001. Both agencies gave presentations and explained their duties and responsibilities. The public and the mining industry were provided the opportunity to ask questions and voice concerns. Several members of the public and mine representatives took advantage of this opportunity. The meeting was attended by 40 to 50 people.

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, and the Earth Day Celebration held on the Capitol grounds in Jefferson City. One staff member made several presentations at a public school and explained the MLRP's activities to the students.

In December 2000, the Columbia Daily Tribune featured a story on the Upper Cedar Creek Clean Streams/319 project. KOMU television station in Columbia, Missouri subsequently aired a five minute feature story on the project in January 2001.

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 2001, 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 Appalachian Clean Streams Initiative (ASCI). To date, Missouri has received grant monies totaling \$522,630 to mitigate acid mine drainage (AMD) at three sites including Upper Cedar Creek, Old Bevier, and Gans Creek.

ASCI work in Missouri has so far been limited to the ongoing Upper Cedar Creek project. 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, \$117,825 of ACSI funds have been expended and \$258,547 of additional funds are obligated for the project. All of FY 1998 (\$22,130), FY 1999 (\$164,785), and FY 2000 (\$163,484) ACSI funds will be utilized for the project. Approximately \$72,000 of EPA 319 funds will also be utilized on the project. During EY 2001, reclamation was completed on four wetlands and 13 streambank areas along Cedar Creek. The constructed wetlands were designed to improve the water quality of Cedar Creek by adding alkalinity and reducing iron and sulfates.

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. The wetland was redesigned and recently reconstructed. OSM is providing the State with technical support, and the Missouri National Guard is providing in-kind services on this project. Although the project qualifies for Clean Stream funding, Missouri has thus far limited expenditures to regular AML funds. It is possible the State will use FY 2001 ACSI funds at the site.

The Gans Creek site is comprised of two small surface mines along a tributary of Gans Creek, located three miles southeast of Columbia, Missouri. The overburden is extremely acidic and covers much of the creek bottom, forcing the creek to flow through the spoil. As a result, the stream is acidified and carries a significant load of acid-forming sediments into Gans Creek, one half mile downstream. The Boone County Soil and Water Conservation District, the Natural Resources Conservation Service, and the Missouri Department of Conservation, are very concerned about this area because Gans Creek is habitat for the Topeka Shiner, a Federally listed endangered species. The State may also utilize FY 2001 ACSI funds at the Gans Creek site.

Regulatory Program

The MLRP continued work on bond forfeiture sites in EY 2001. Forfeiture reclamation was initiated at both the Amoret and L.B. Mines sites, while reclamation work continued at North American Resources Silver Creek mine and Universal Coal and Energy. In addition, the Commission gave final forfeiture liability release on the railroad load-out facility and the dragline erection site at Universal Coal and Energy.

OSM's review of the way Missouri handles bond forfeitures identified problems that must be addressed. The review found that, in most instances, on-site reclamation is not initiated until years after forfeited bond is collected. In addition, the MLRP is not aggressively pursuing alternative enforcement to collect individual civil penalties and reimburse Missouri's bond pool for money expended on forfeiture reclamation.

Previous PAs included a long standing unresolved issue in that a significant downward trend in the State's willingness to cite all observed violations was identified for a number of years. This topic was reviewed in EY 2001, and OSM found the MLRP's performance has improved. However, the MLRP still gives occasional warnings instead of issuing NOV's when violations are observed.

During EY 2001, Missouri submitted a proposed amendment that was substantially approved by OSM. As a result, 15 outstanding required amendments at 30 CFR 925.16 were removed.

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 Directive REG-8, revised July 28, 1999, 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 no off-site impacts.

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. OSM conducted 35 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 18 off-site impacts were identified at 13 of the 53 IUs (Table 4). Seven off-site impacts were found at five of the 26 active IUs. Twenty-one, or nearly 81 percent, of these IUs were free of off-site impacts. State and Federal inspections identified 11 off-site impacts at 8, or about 30 percent, of the 27 IUs where bond had been forfeited. The types of impacts recorded included one encroachment, two regarding land stability, and 15 hydrologic. The impacts affected 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 effect. Four of the impacts were identified prior to EY 2000. Five off-site impacts were eliminated during the evaluation period.

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. The number of off-site impacts decreased by one from EY 2000 to EY 2001. Timely reclamation will eliminate many of the off-site impacts and prevent new impacts from occurring.

B. Reclamation Success

OSM conducted four joint bond release inspections with the State. Based on field observations and associated document reviews, OSM found that the bond release applicants met performance standards and permit requirements at all four sites, and the State appropriately released the bonds as requested.

During EY 2001, Missouri approved Phase I bond release on 1,440.25 acres, Phase II release on 168.75 acres, and Phase III release on 460.15 acres. All of this land was disturbed by mining operations. In addition to the bond released on mined land, MLRP granted Phase I, II, and III release of bond on 636.49 acres that were bonded but never disturbed. All of the EY 2001 releases combined amounted to 2,076.74 acres of Phase I release, 805.24 acres of Phase II release, and 1096.64 acres of Phase III release (Table 5). This means that approximately eight percent of the acres under bond in EY 2001 received total bond release during the year. Missouri did not permit any new acreage in EY 2001.

Based on the joint inspections and other data sources, OSM believes the MLRP is not releasing bond until the appropriate performance standards for each phase of bond are met. Missouri's adherence to all applicable performance standards ensures successful reclamation. There was no remaining activity in Missouri this year.

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 Applicant Violator System (AVS).

Last year's evaluation concerning citizen complaints found that Missouri uses a citizen complaint tracking sheet and an associated electronic citizen complaint database to enhance its customer service, but pertinent information was not always entered in either of the tracking systems. OSM also determined that Missouri was properly notifying complainants of regulatory rights concerning confidentiality and attendance during

inspections, but was not always providing written notification to citizens of the right to request informal and formal reviews. As a result, OSM suggested modification and increased use of the tracking systems to assure such notification is always made. OSM's EY 2001 review found the State modified its tracking system and is now entering all pertinent information regarding citizen complaints and is providing citizens written notification of their rights to informal and formal reviews. Based on evaluation findings, OSM believes that Missouri is employing its tracking systems to effectively document citizen complaints, and modifications to the systems have improved the effectiveness of the State program in providing customer service.

OSM's EY 2000 evaluation of Missouri's maintenance of the AVS found the State's use and operation of the AVS greatly improved after 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, the evaluation also revealed the State was not complying with the March 1, 1991, Memorandum of Understanding (MOU) between OSM and the State because it was not annually reviewing Mine Safety and Health Administration (MSHA) information to verify permittee, operator, and MSHA number. A follow-up review in EY 2001 found this minor deficiency still exists.

OSM reviewed Missouri's records to determine if the State effectively addresses public inquiries concerning its AML program. 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 2001, three 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. In addition, the MLRP responded to over 50 inquiries about AML reclamation projects from local, State, and Federal agencies.

OSM found that Missouri is following 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 five abandoned mine land sites of which two were emergency projects. During the year, seven vertical openings and nine portals were closed. The two emergency projects eliminated a five acre underground mine fire and stabilized a one acre area that was subsiding and affecting a county road with adjacent utilities. As the evaluation year ended, Missouri was completing reclamation on three additional projects.

Since the program was fully approved in 1982, Missouri has reclaimed 65,902 feet of dangerous highwalls, 35 portals, approximately 3 acres of subsidence, 127 vertical mine openings, 49 instances of polluted water, 1,517.8 acres that were contributing to 10.8 miles of clogged streams, and 540.9 acres of dangerous piles and embankments.

Missouri continues to design and construct AML reclamation projects in an effective 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 2001, OSM provided Missouri with the following assistance:

Title IV Assistance

MCRCC assisted the MLRP in investigating a possible AML emergency near Hannibal. Mine spoil heavily laden with shale was burning at the ground surface. The site was declared an emergency and the fire was extinguished.

MLRP's AML staff requested assistance in developing a Geological Information System (GIS) for mining and mine subsidence in the St. Louis area. MCRCC staff met with Missouri AML and the Division of Geology and Land Survey (DGLS) staff in June to discuss roles and schedules. The DGLS provided raw mine data on mine locations and drilling records. MCRCC is currently developing a conceptual design for the GIS

The MLRP's AML staff requested assistance developing designs to close 19 vertical non-coal shafts in the Joplin area. MCRCC completed initial designs on six shafts and sent them to the State. Designs on the remaining shafts are being developed.

In EY 2000, MCRCC prepared reclamation design and contract specifications for an AMD treatment project at the Old Bevier AML site. A permanent wetland passive water treatment system was constructed this evaluation year. MCRCC staff will continue to work on follow-up efforts at the site.

Title V Assistance

MCRCC, at the request of the MLRP, reviewed blasting records from a mine with a history of poor records. No significant errors were discovered. Subsequently, following a blasting complaint, additional records were reviewed and the MCRCC set up a seismograph at the complainant's home. A report was completed and forwarded to the MLRP.

MCRCC staff conducted an on-site evaluation of an interim program bond forfeiture site in order to provide the MLRP recommendations on reclamation to eliminate acid/toxic-forming surface materials and acid mine drainage discharges.

MCRCC staff assisted the State by reviewing and commenting on MLRP's proposed forfeiture reclamation plan for a permanent program site.

MCRCC staff conducted a workshop for eight MLRP permit review staff members to help them develop reclamation plan review skills.

A MCRCC staff member assisted the MLRP by serving as an expert witness in the formal hearing of an appeal filed by a mine operator regarding reconstruction of an intermittent stream

channel and determination of significance of a revision regarding removal of a second coal seam not addressed in the approved permit.

In December 2000, MCRCC mailed the MLRP the latest releases of the TIPS software. The TIPS NT Workstation 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 2001. The detailed finding reports are available at the MCRCC in Alton, Illinois.

A. Permit Revisions

The purpose of this joint OSM/MLRP review was to determine why Missouri receives a relatively high number of permit revision requests compared to the active number of mines in the state, and to identify possible options to reduce the associated workload. The study found numerous input errors in the permit revision database. This lead OSM to believe that the MLRP has been providing OSM with the number of permit revisions under review in a given evaluation year instead of the number of permit revisions issued that year. This could be the reason for seemingly inflated revision figures for the last several years. MLRP personnel could not confirm this but agreed it was possible. The MLRP apparently did not have a clear understanding concerning the information required for OSM's Annual Report on Missouri's approved program. Several options to correct problems with the database and to lessen the MLRP's permit revision workload were identified.

B. 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 since 1997.

C. Bond Forfeiture – Procedures and Effectiveness

This review was conducted because general oversight from EY1998 – through EY 2000 identified potential deficiencies in the way the MLRP handles bond forfeiture. This year's review found that, in most instances, an excessive amount of time passes between collection of forfeited bond and final reclamation. In addition, the MLRP is not aggressively pursuing alternative enforcement action to collect individual civil penalties and reimburse expenditures from Missouri's bond pool. OSM plans to conduct

additional review and work with the State to remedy these deficiencies during EY 2002.

D. 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 four complaints of possible emergency situations during the review period. State investigations of the complaints resulted in declaration of two AML emergencies. For both of these, initial site investigations were conducted within 24 hours of receipt of the complaints. Initial abatement actions occurred within five days, and final abatements were accomplished within 20 days following receipt of each complaint. All four 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.

Appendix A: Tabular Summaries of Data Pertaining to Mining, 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, 2000, to September 30, 2001. 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.

Appendix B:

In a telephone conversation with Larry Coen, Staff Director of the Missouri Land Reclamation Program, on November 20, 2001, he noted that he had reviewed the draft OSM 2001 Annual Evaluation Report, and concurred with the findings and conclusions.

TABLE 1

COAL PRODUCTION (Millions of short tons)			
Annual Evaluation Period	Surface mines	Underground mines	Total
Coal production ^A for entire State:			
1998	0.372	0.000	0.372
1999	0.365	0.000	0.365
2000	0.436	0.000	0.436
Total	1.173	0.000	1.173

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, 2001													
Coal mines and related facilities	Number and status of permits									Permitted acreage^A (hundreds of acres)			
	Active or temporarily inactive		Inactive Phase II bond release		Abandoned		Totals		Insp. Units^D				
	IP	PP	IP	PP	IP	PP	IP	PP		IP	PP	Total	
	STATE AND PRIVATE LANDS REGULATORY AUTHORITY: STATE												
Surface mines	0	50	0	0	10	51	10	101	53	0	124	124	
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	50	0	0	10	51	10	101	53	0	124	124	
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	50	0	0	10	51	10	101	53	0	124	124	
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	50	0	0	10	51	10	101	53	0	124	124	
Average number of permits per inspectable unit (excluding exploration sites)									<u>2</u>				
Average number of acres per inspectable unit (excluding exploration sites)									<u>233.9</u>				
Number of exploration permits on State and private lands:									<u>2</u>		On Federal lands ^C :		<u>0</u>
Number of exploration notices on State and private lands:									<u>0</u>		On Federal lands ^C :		<u>0</u>
IP: Initial regulatory program sites													
PP: Permanent regulatory program sites													
^A When a unit is located on more than one type of land, include 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

STATE PERMITTING ACTIVITY As of September 30, 2001												
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	1	0	575	0	0	0	0	0	0	1	0	575
Renewals	2	2	581	0	0	0	0	0	0	2	2	581
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	2	2		0	0		0	0		2	2	
Exploration notices ^B		0			0			0			0	
Revisions (exclusive of incidental boundary revisions)		53			0			0			53	
Incidental boundary revisions		0	0		0	0		0	0		0	0
Totals	5	57	1,156	0	0	0	0	0	0	5	57	1,156

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.

TABLE 4

OFF-SITE IMPACTS														
DEGREE OF IMPACT		RESOURCES AFFECTED												
		People			Land			Water			Structures			Total
		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
	Land Stability	0	0	0	0	0	0	0	0	0	0	0	0	0
	Hydrology	0	0	0	2	4	0	4	3	0	0	0	0	13
	Encroachment	0	0	0	0	0	0	0	0	0	0	0	0	0
	Other	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	2	4	0	4	3	0	0	0	0	13
Total number of inspectable units:		<u>26</u>												
Inspectable units free of off-site impacts:		<u>21</u> 80.8 % free of off-site impacts.												
OFF-SITE IMPACTS ON BOND FORFEITURE SITES														
DEGREE OF IMPACT		RESOURCES AFFECTED												
		People			Land			Water			Structures			Total
		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
	Land Stability	0	0	0	0	2	0	0	1	0	0	0	0	3
	Hydrology	0	0	0	1	2	0	1	5	0	0	0	0	9
	Encroachment	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
	Total	0	0	0	1	4	1	1	7	0	0	0	0	14
Total number of inspectable units:		<u>27</u>												
Inspectable units free of off-site impacts:		<u>19</u> 70.4 % free of off-site impacts.												

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	- Approximate original contour restored - Topsoil or approved alternative replaced	2,076.74
Phase II	- Surface stability - Establishment of vegetation	805.24
Phase III	- Post-mining land use/productivity restored - Successful permanent vegetation - Groundwater recharge, quality and quantity restored - Surface water quality and quantity restored	1,096.64
	Bonded Acreage Status^A	Acres
Total number of bonded acres at end of last review period (September 30, 2000) ^B		12,868.47
Total number of bonded acres during this evaluation year		0.00
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

^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).

^C The Phase I, Phase II, and Phase III totals include 636.49 acres of undisturbed land bond release.

OPTIONAL TABLE 6
No Table Required

TABLE 7

STATE BOND FORFEITURE ACTIVITY (Permanent Program Permits)		
Bond Forfeiture Reclamation Activity by SRA	Number of Sites	Acres
Sites with bonds forfeited and collected that were unreclaimed as of September 30, 2000 (end of previous evaluation year) ^A	35	5,825.00
Sites with bonds forfeited and collected during Evaluation Year 2001 (current year)	0	0.00
Sites with bonds forfeited and collected that were re-permitted during Evaluation Year 2001 (current year)	0	0.00
Sites with bonds forfeited and collected that were reclaimed during Evaluation Year 2001 (current year)	0	0.00
Sites with bonds forfeited and collected that were unreclaimed as of September 30, 2001 (end of current year) ^A	35	5,819.00
Sites with bonds forfeited but uncollected as of September 30, 2001 (end of current year)	0	0.00
Surety/Other Reclamation (In Lieu of Forfeiture)		
Sites being reclaimed by surety/other party as of September 30, 2000 (end of previous evaluation year) ^B	2	340.50
Sites where surety/other party agreed to do reclamation during Evaluation Year 2001 (current year)	8	1,118.00
Sites being reclaimed by surety/other party that were re-permitted during Evaluation Year 2001 (current year)	0	0.00
Sites with reclamation completed by surety/other party during Evaluation Year 2001 (current year) ^C	0	0.00
Sites being reclaimed by surety/other party as of September 30, 2001 (current evaluation year) ^B	0	0.00
<p>^A Includes data only for those forfeiture sites not fully reclaimed as of this date</p> <p>^B Includes all sites where surety or other party has agreed to complete reclamation and site is not fully reclaimed as of this date</p> <p>^C This number also is reported in Table 5 as Phase III bond release has been granted on these sites</p> <p>* 2 permits, totaling 6 acres liability were reclaimed and released.</p>		

TABLE 8

MISSOURI STAFFING (Full-time equivalents at the end of evaluation year)	
Function	EY 2001
Regulatory Program	
Permit review	6.25
Inspection	5.15
Other (administrative, fiscal, personnel, etc.)	3.30
Regulatory Program Total	14.70
AML Program Total	11.20
TOTAL	25.90

TABLE 9

FUNDS GRANTED TO MISSOURI BY OSM (Millions of dollars) EY 2001		
Type of Grant	Federal Funds Awarded	Federal Funding as a Percentage of Total Program Costs
Administration and Enforcement	\$0.49	50
Small Operator Assistance	\$0.00	0
Totals	\$0.49	

TABLE 10

STATE OF MISSOURI INSPECTION ACTIVITY		
PERIOD: OCTOBER 1, 2000 - SEPTEMBER 30, 2001		
Inspectable Unit Status	Number of Inspections Conducted	
	Complete	Partial
Active*	170	99
Inactive*	0	0
Abandoned*	14	17
Total	184	116
Exploration	0	0

* Use terms as defined by the approved State program.

State should provide inspection data to OSM annually, at a minimum, and maintain inspection data on a continual basis. OSM offices responsible for Federal and Indian Programs need not complete this table since data will be queried from the I & E Tracking System.

TABLE 11

STATE OF MISSOURI ENFORCEMENT ACTIVITY		
PERIOD: OCTOBER 1, 2000 - SEPTEMBER 30, 2001		
Type of Enforcement Action	Number of Actions*	Number of Violations*
Notice of Violation	38	38
Failure-to-Abate Cessation Order	9	9
Imminent Harm Cessation Order	0	0

* Do not include those violations that were vacated.

State should provide enforcement data to OSM annually, at a minimum, and maintain data on a continuous basis. OSM offices responsible for Federal and Indian Programs need not complete this table since data will be queried from the I & E Tracking System.

TABLE 12

<p align="center">LANDS UNSUITABLE ACTIVITY STATE OF MISSOURI</p> <p align="center">PERIOD: OCTOBER 1, 2000 - SEPTEMBER 30, 2001</p>			
Missouri			
Number of Petitions Accepted	0		
Number of Petitions Rejected	0		
Number of Decisions Declaring Lands Unsuitable	0	Acreage Declared as Being Unsuitable	0
Number of Decisions Denying Lands Unsuitable	0	Acreage Denied as Being Unsuitable	0

State should provide lands unsuitable data to OSM annually if there is any activity in this program area. OSM OFFICES RESPONSIBLE FOR FEDERAL AND INDIAN PROGRAM STATES MUST ALSO COMPLETE THIS TABLE.