



# OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

Annual Evaluation Report

for the

Regulatory and Abandoned Mine Land Reclamation Programs

Administered by the State

of

Arkansas

for

Evaluation Year 2005

(July 1, 2004, through June 30, 2005)

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## I. Introduction

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining Reclamation and Enforcement (OSM) in the Department of the Interior. SMCRA provides authority to OSM to oversee the implementation of and provide Federal funding for State regulatory programs that have been approved by OSM as meeting the minimum standards specified by SMCRA. This report contains summary information regarding the Arkansas program and the effectiveness of the Arkansas program in meeting the applicable purposes of SMCRA as specified in Section 102. The evaluation period covered by this report is July 1, 2004, to June 30, 2005.

The primary focus of OSM's oversight policy is an on-the-ground, result-oriented strategy that evaluates the end result of State program implementation, i.e., the success of the State programs in ensuring that areas off the minesite are protected from impacts during mining, and that areas on the minesite are contemporaneously and successfully reclaimed after mining activities are completed. Public participation is encouraged 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.

OSM's oversight guidance emphasizes that oversight is a continuous and ongoing process. To further the idea of continuous oversight, this annual report is structured to report on OSM's and Arkansas' progress in conducting evaluations and completing oversight activities, and on their accomplishments at the end of the evaluation period. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at the Office of Surface Mining, Tulsa Field Office (TFO), 5100 East Skelly Drive, Suite 470, Tulsa, Oklahoma 74135-6547.

The following acronyms are used in this report:

ADEQ	Arkansas Department of Environmental Quality
AEA	Alternative Enforcement Action
AMD	Acid Mine Drainage
AML	Abandoned Mine Land
AMLR	Abandoned Mine Land Reclamation
AVS	Applicant Violator System
EY	Evaluation Year
FTE	Full Time Equivalent
MCR	Mid-Continent Regional Office
OSM	Office of Surface Mining Reclamation and Enforcement
SMCRA	Surface Mining Control and Reclamation Act of 1977
TFO	Tulsa Field Office

## **II. Overview of the Arkansas Coal Mining Industry**

Arkansas has reserves of bituminous, semianthracite, and lignite coal. The original bituminous and semianthracite coal reserves were estimated at approximately 2.2 billion tons, half of which is recoverable. Prior to the 1950's, much of the coal was mined by underground mining methods. Since then, most of Arkansas coal has been mined by area surface mining methods. Remining, especially surface mining methods to remove coal left in pillars in old underground mines and removing coal from old coal mine waste piles, has been common. Lignite, potentially a major energy resource in Arkansas, was mined in southern Arkansas before the Civil War and used as a fuel by local industries. The Arkansas lignite deposits are estimated as high as 9 billion tons. In 1988, an exploratory operation confirmed that Arkansas lignite could be used in the State's coal-fired energy plants. As yet, the lignite field has not been developed. In 2004, the 3 coal-producing operations in the State produced approximately 45,165.52 tons of bituminous coal using conventional surface mining and underground methods. A new surface operation with production starting late in 2004, accounted for the bulk of the increase from 7,667.32 tons in the previous year. Permitted acreage rose from 1,142.8 acres to approximately 1,670 acres. Because coal operations in Arkansas are small and the demand for coal erratic, the industry employs only approximately 25 people on a daily basis.

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

The State allows public participation in a number of ways including commenting on permit and major revision applications and State rule making. The public can also participate in the formal review process of many State decisions related to permitting and inspection and enforcement matters. The public can further participate in the State inspection and enforcement process through bond releases and citizen's request for inspections. Each public notice of an AML project includes an invitation for members of the public to provide input on the need for the proposed project, how the proposed project should be carried out, what the post reclamation use of the project should be, and suggestions of other possible coal-related reclamation sites in Arkansas.

## **IV. Major Accomplishments/Issues/Innovations in the Arkansas Program**

### **A. Regulatory Program**

ADEQ operated with 50 percent Federal funding with a grant from OSM of \$149,353. ADEQ had a staff of 3.95 FTE's devoted to its regulatory program.

During EY 2003 ADEQ used collected reclamation performance bond funds supplemented with ADEQ trust monies to complete grading, planting of temporary vegetation, and treatment of the acidic pond at the Scott Branch H.E.S. 0423-MC site. The pH of the water discharging from the site remained within

compliance throughout EY 2004, only to become acidic again during EY 2005. The addition of pine trees completed the planting of permanent vegetation in EY 2005.

ADEQ completed bond forfeiture reclamation on the abandoned Frank E. Sims Construction Company interim program site. The reclamation was accomplished using a combination of forfeited funds and AML grant money. With the completion of reclamation, ADEQ terminated all outstanding enforcement actions. Bond forfeiture reclamation was also completed at the abandoned Great National site. ADEQ terminated its jurisdiction early in November 2005.

The Farrell-Cooper Mining Company permit issued the previous evaluation period became active during EY 2005. As expected, the new permit resulted in a significant increase the State's coal production. The new operation is using a combination of conventional area surface mining and auger methods to extract coal.

## **B. Abandoned Mine Land Reclamation Program**

ADEQ is the agency designated by the State to administer the AMLR Program. In EY 2005 it operated with a grant of \$1.52 million and staff of 6.9 FTE's. Project selection is based on a system that considers protection of the public health, safety and general welfare, and property from danger of the adverse affects of past coal mining practices. ADEQ solicited citizen input for projects selected for construction.

Most planning and design is done with in-house staff. Projects selected for construction met eligibility requirements under the approved AML program. The majority of health and safety features on projects have been open strip pits with dangerous highwalls and associated water impoundments that are located near the general public. Pits were filled in with mine spoil and the highwalls reclaimed to eliminate the hazard. Some water-filled pits have been partially filled with spoil and inslopes reshaped to form lakes with gentle slopes leading to shallow water around the edges of impoundments. ADEQ has invited involvement of the general public and local citizens in project selection before construction.

ADEQ followed standard construction practices using State approved contracting procedures. Inspection of projects indicated ADEQ completed projects with no significant problems. ADEQ had one large project under construction located at Huntington, Arkansas. The 112 acre Priority 2 project will eliminate approximately 1,500 linear feet of dangerous highwall, 5 hazardous water bodies, 1 acre of industrial/residential waste, grade 75 acres of dangerous piles and embankments, and restore .3 miles of clogged streams. A section of Cherokee Creek diverted by mining will be returned to its approximate original location and a more natural configuration. At the close of EY 2005, ADEQ's contractor was ahead of schedule for completing construction.

ADEQ completed 4 nonemergency projects during EY 2005. Two of the projects were interim era surface mines, one of which was partially funded from collected reclamation performance bonds. Construction on both surface mine reclamation projects was started in EY 2004. Construction on the other 2 projects was started in EY 2005, abating hazards associated with past underground coal mining. With completion of the 4 projects ADEQ added 3,755 linear feet of dangerous highwall, 2 hazardous water bodies, 3 acres of industrial/residential waste, 1 portal, 1 acre of subsidence, and 6 vertical openings to the coal-related problems abated by its AML program.

ADEQ's AML program properly implemented interagency/intergovernmental coordination. Required AVS checks were completed on successful bidders. Goals for completed projects met the goals of the project proposals. Sediment control was in place on the active project reviewed.

ADEQ did not follow its approved State Reclamation Plan for project selection for the active project reviewed. All members of the Reclamation Review Committee were not notified of ADEQ's proposal to reclaim the Huntington Town West site. Under the Arkansas State Reclamation Plan, ADEQ is to provide the Arkansas Reclamation Review Committee a list for final approval of proposed projects it intends to seek AML funding for. The Reclamation Review Committee consists of several State agencies. The Reclamation Review Committee is to scrutinize all the projects considered for funding by ADEQ and narrow the selection using evaluation criteria and funding ability and present its findings to the Director of ADEQ. The Huntington Town West proposed project was included in the same notification to the Reclamation Review Committee as the FESCO and Yarbrough proposed projects, which were reviewed in OSM's previous oversight evaluation in EY 2004. Therefore, OSM's finding that not all Reclamation Review Committee members were notified of the proposed AML reclamation project and invited to provide comments and recommendations is not a new finding. It should be viewed as an extension of a previous finding to the project reviewed for this evaluation. ADEQ provided TFO with notification of procedural changes it instituted to ensure that on future AML projects all members of the Reclamation Review Committee will be notified and given the opportunity to participate in the project selection process per the approved State Reclamation Plan. TFO will review implementation of the procedures during EY 2006 oversight.

During EY 2005, ADEQ investigated and completed one emergency project consisting of closing an open subsidence feature adjacent to a rural residential driveway. It also completed construction on one other emergency project it investigated in the last days of EY 2004. The project abated hazards posed by a vertical opening resulting from the failure of a prelaw shaft closure.

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

To further the concept of reporting end results, the findings from performance standards and public participation evaluations are being collected for a national perspective in terms of the number and extent of observed off-site impacts and the number of acres that have been mined and reclaimed, which meet the bond release requirements for the various phases of reclamation and the effectiveness of customer service provided by the State. Individual topic reports are available in TFO that provide additional details on how the following evaluations and measurements were conducted.

### **A. Off-Site Impacts**

An observation is defined as an inspection, either State or Federal, partial or complete. When a Federal observation leads to a State observation, the observation is counted only once. Using information from State and Federal inspection reports and State inspector statements and civil penalty assessment documents, it was determined there were 151 opportunities to observe off-site impacts. The number of off-site impact observations significantly increased over what has been found in recent years. Overall, 5 of 13 Arkansas sites produced off-site impacts. Four of Arkansas' eight non-forfeiture sites were free of off-site impacts. Four of Arkansas' five forfeiture sites were free of off-site impacts. Of the 16 off-site impacts observed, only 1 was generated by a forfeiture site. Twelve of the observations were from one site in reclamation, which the operator appears to intend to abandon.

For the number of its inspectible units, Arkansas produced a significant number of off-site impacts. All were hydrologic, with half of the impacts being judged as minor, 5 were judged as moderate, and 3 were judged as major. In most instances it is likely with the passage of time, the damage will be repaired through natural processes after the source of the impact is abated (See Table 4).

### **B. Reclamation Success**

OSM is evaluating reclamation success by comparing the number of acres released in comparison with acres disturbed. At the end of EY 2004, Arkansas had 1,096.04 disturbed acres. ADEQ approved one Phase III bond release for 19.72 acres during EY 2005. An additional 44.5 acres of new disturbance occurred during EY 2005 (See Table 5).

### **C. Customer Service**

The Customer Service topic for this year's review was handling of citizen's complaints. As in the last several years, there were no citizen's complaints filed during the evaluation period.

## VI. OSM Assistance

OSM's MCR provided technical assistance in water sampling and analysis to the joint ADEQ/OSM AMD Team. Additional assistance in water sampling, analysis, and development of AMD treatment plans is anticipated during EY 2006. ADEQ staff attended NTTP training courses in erosion and sediment control, historic and archeological resources, passive treatment, enforcement procedures, and surface and groundwater hydrology. OSM provided 50 percent of ADEQ's administrative and enforcement budget for its approved regulatory program. OSM provided 100 percent funding for ADEQ's AMLR program (See Table 8).

## VII. General Oversight Topic Reviews

OSM intends the oversight reviews and reports be used as a basis for continuing joint efforts in assisting the State in meeting its regulatory responsibilities. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at the Office of Surface Mining, Tulsa Field Office, 5100 East Skelly Drive, Suite 470, Tulsa, Oklahoma 74135-6547.

**Mine-Site Evaluation:** During EY 2005, TFO conducted six complete oversight inspections and one bond release inspection on Arkansas mines. All inspections were conducted jointly with ADEQ.

**Bond Forfeiture Reclamation:** The review was completed by a joint ADEQ/OSM team and included four sites on which ADEQ has forfeited and collected the available reclamation performance bonds. The team found no significant changes on two of the sites and additional erosion and decreased water quality at a third site. ADEQ completed planting of permanent vegetation with the planting of pine trees at the forfeited and collected Scott Branch H.E.S. site. ADEQ completed reclamation at the Great National Corporation site, terminating its jurisdiction over the site in November 2004.

Over 2 years ago OSM assisted ADEQ with asset determinations for the principals of two of the forfeited sites where remaining reclamation liability significantly exceeds collected bond forfeiture funds. At the end of EY 2005, ADEQ had yet to make a determination on pursuing AEA's against the company's principals to recover funds for reclamation of the abandoned unreclaimed sites.

**Acid Mine Drainage Title V:** The AMD project is being addressed by a joint ADEQ/TFO AMD Team that was formed in 1997 in response to an OSM National emphasis on repairing the impacts of past and current AMD and prevention of future AMD occurrences. Six sites were identified as acid producing: one forfeiture; one in reclamation; and four active. MCR completed initial sampling in December 2001 with follow-up sampling during December 2002. The current sampling phase is intended to determine the long-term nature of the low pH water previously documented on these sites, develop treatment costs, and provide the basis for adjustments to reclamation performance bonds where applicable. One additional site was added during the evaluation period. It historically produced acidic water in one pond, but had maintained

compliance pH for a few years. The pond turned acidic again. During EY 2005, ADEQ completed bond forfeiture reclamation on the Great National Corporation site and terminated its jurisdiction over the site. The AMD Team does not contemplate additional sampling at the Great National site. The AMD Team conducted additional background sampling on the six remaining sites during EY 2005. All sites were producing water with a pH below 6.0. With assistance from MCR, the AMD Team will evaluate if it has adequate background data to develop long-term AMD treatment costs for some of the sites and continue background sampling on sites that lack adequate background water quality data. For sites where water quality background data is deemed adequate, the AMD Team will begin to develop long-term treatment plans and estimates for costs of implementing the plans by a third party.

## **Appendix A: Tabular Summaries of Data**

These tables present data pertinent to mining operations and State and Federal regulatory activities within Arkansas. They also summarize funding provided by OSM and Arkansas staffing. Unless otherwise specified, the reporting period for the data contained in all tables is July 1, 2004, to June 30, 2005. Additional data used by OSM in its evaluation of Arkansas' performance is available for review in the evaluation files maintained by TFO.

## **Appendix B: State Comments on Report**

By telephone communication with James Stephens, Chief, Surface Mining & Reclamation Division, Arkansas Department of Environmental Quality, on August 31, 2005, Mr. Stephens stated they have no comment on the Draft EY 2005 Annual Evaluation Report.