

OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

Annual Evaluation Summary Report

for the

Regulatory and Abandoned Mine Land Reclamation Programs

Administered by the State

of

ALABAMA

for

Evaluation Year 2006

July 1, 2005 to June 30, 2006

July 2006

EXECUTIVE SUMMARY

During the 2006 Evaluation Year (EY), the Office of Surface Mining (OSM), Birmingham Field Office (BFO), conducted oversight evaluations of the Alabama Surface Mining Commission (ASMC) and the Alabama Department of Industrial Relations (ADIR), the State coal mine regulatory and abandoned mine land (AML) program agencies, respectively. The oversight studies focused on the success of these agencies in meeting the Surface Mining Control and Reclamation Act's goals for environmental protection and prompt, effective reclamation of lands mined for coal. An evaluation (performance) plan for each agency was cooperatively developed by the BFO and the State to tailor the oversight activities to the unique conditions of each State program. Through oversight activities, the need for financial, technical, and other program assistance to the State is identified and provided to strengthen its programs.

In support of OSM's national initiatives, studies were conducted in the areas of reclamation success, customer service, and off-site impacts.

- The BFO's review of nine bond release actions demonstrated that ASMC continues to follow all program requirements for releasing bonds. Phase III bond releases on 2,406 acres were approved by ASMC.
- The BFO's customer service review concentrated on ASMC's procedures and permitting actions relative to public participation in the permit review process. Based on this review, ASMC is meeting the requirement of insuring that new permit applications are made available to the public for review and comment. The ASMC addresses comments and/or objections regarding new permit applications and resolves any issues before the permit is issued.
- The number of off-site impacts decreased in EY 2006, and there was a 1.8% increase in inspectable units free of off-site impacts from EY 2005. The off-site impact study indicated that 89 percent of Alabama's inspectable units were free from off-site impacts. Forty off-site impacts were identified on 24 inspectable units.

General oversight topic reviews were conducted on both the State regulatory and AML programs.

- The BFO conducted a study to evaluate whether ASMC performed reviews to determine whether a pattern of violations (POV) may have existed, that the reviews were conducted in compliance with the requirements, and that appropriate action was taken. Of the 430 cited violations issued to 113 permitted sites, ASMC made a determination that a pattern of violations existed on six permitted sites. Five show cause orders were written. During the review period, ASMC inadvertently did not identify the occurrence of a POV on two permits. ASMC initiated actions and measures that addressed study findings related to the determination of pattern of violations. These included additional staff training and discussions to convey the importance of identifying POV's and to insure the full documentation of factors present that result in declining to issue a show cause order or vacating an outstanding show cause order as required by the Rule.

- The BFO conducted a study to determine how ASMC responds to State and Federal fish and wildlife agency comments concerning stream buffer zones and how they document and support decisions on buffer zone waivers. The study concluded that ASMC reviews permit and revision applications for stream buffer zone issues, and they require applicants to include fish and wildlife resource information and protection plans in their applications. The study also found that ASMC needed to strengthen their program in the area of stream buffer zone waivers to insure compliance with the regulations. ASMC routinely makes permit findings concerning buffer zone waivers; however, their determinations do not clearly address all the findings required by ASMC regulations. ASMC agreed to make the required findings in the future and will require applicants to re-consult with State and Federal fish and wildlife agencies when there are changes to the application regarding stream buffer zones after receipt of State and Federal fish and wildlife agency comments.
- At the BFO's request, the Mid-Continent Region (MCR) conducted a technical review of five surface mining permits issued by ASMC to determine the adequacy and appropriateness of documentation supporting Probable Hydrologic Consequences (PHC) determinations and subsequent Cumulative Hydrologic Impact Assessments (CHIA) during permit issuance. The technical review of the five surface mining permits issued by the ASMC revealed the data submitted in the permit applications were generally inadequate in site-specific geologic, geochemical, and hydrogeologic information to support the PHC determinations. The associated CHIAs were insufficient and did not include information or data specific to the mine site in question. In response to this review, the ASMC endorsed the need to improve and strengthen the adequacy and appropriateness of documentation supporting PHC determinations and the ensuing CHIAs. ASMC has initiated the development of a workplan and is proactively involved in working with OSM to implement actions to address the recommendations.
- As a follow-up to the EY 2001 Subsidence Control Study, the BFO conducted a review to determine the progress in the implementation of the six recommendations made in EY 2001. This follow-up review revealed that five of the six areas reviewed will require additional attention by the ASMC to bring each company into compliance with current subsidence control regulations. The ASMC is continuing to work with underground mining companies and their contractors to ensure that subsidence control regulations are being upheld.
- The BFO and MCR conducted a joint review to examine the procedures used by permittees in substantiating that topsoil substitute material meets permit specifications, and to review ASMC's procedures for verifying the permit complies with topsoil replacement standards in accordance with the Rules and ASMC policy. Based on the results of this study, the permits reviewed demonstrated that requirements on topsoil substitute material particle size were met. However, other issues concerning topsoil material are being reviewed by ASMC to insure documented policies are consistently adhered to. ASMC is also developing new guidelines for topsoil substitution and has submitted a draft to OSM for review.
- The BFO conducted a study to determine if ASMC properly identifies permits which require acid/toxic materials special handling plans and to verify that operators comply with the approved special handling plans. Mines chosen for this study were mines

located in the Coker Formation which is known to be extremely acidic. The BFO's review indicated that acid-toxic layers are routinely identified as part of the pre-mining geologic testing on prospective mine sites. Field inspections did not identify any problems related to implementation of special handling plans, and vegetation reviews did not indicate problems related to toxic materials.

- The BFO evaluated the effectiveness of the bond forfeiture reclamation program in reclaiming forfeited mine sites. The primary focus was the level of reclamation accomplished with the amount of forfeited funds available for reclamation. The BFO found the ASMC operates its bond forfeiture program in a manner that achieves high quality reclamation and obtains the most reclamation possible with the funding available. It was recommended, however, that the ASMC review cost information related to bond forfeiture reclamation projects to determine if adjustments in the amounts to calculate bonds should be made.
- The MCR performed grant reviews in the areas of ASMC's property management practices, drawdown and disbursement of Federal funds requirements, and payroll procedures. The studies determined that ASMC is in compliance with all requirements of FAM and other State and Federal laws and regulations for property management, cash drawdown and disbursement of Federal funds, and payroll procedures.
- A study to evaluate the accuracy and completeness of Alabama Abandoned Mine Land Inventory System (AMLIS) entries was conducted by the BFO. In the majority of cases, information entered into AMLIS was complete and accurate. Although ADIR has procedures to ensure the accuracy of data entered into AMLIS, the review indicated that the State was not fully complying with the policy. ADIR agreed to make improvements in verifying the correctness of Problem Area Description (PAD/AMLIS) data.
- The BFO conducted an on-the-ground review to document ADIR's success in reclaiming AML problems. During this year, the BFO evaluated ADIR's long term reclamation success. This study included projects completed more than five years, but less than ten, before the date of the study. Field reviews revealed that regardless of project age, the projects have remained stable and continue to meet project goals and objectives. The study found that long-term reclamation success had been achieved on all projects evaluated.
- The MCR performed grant reviews in the areas of ADIR's property management practices, drawdown and disbursement of Federal funds requirements, and compliance with State payroll documentation requirements and procedures for the period October 1, 2005, through April 30, 2006. The studies determined that the State is in compliance with all requirements of FAM and other State and Federal laws and regulations for property management, cash drawdowns and disbursement of Federal funds, and payroll procedures.

As outlined above, the BFO identified several issues. The State has agreed to make the necessary changes to address those issues. The BFO will follow-up during EY 2007 to ascertain the State's progress.

In addition to national initiative reviews and topical studies, OSM engaged in activities that provided assistance to ASMC or ADIR.

- At ADIR's request, OSM MCR and BFO evaluated passive acid mine drainage (AMD) mitigation techniques used on five completed Appalachian Clean Stream Initiative projects which were reclaimed from the inception of the Clean Streams Program through July 1, 2004. The reclamation of two sites resulted in the elimination of the AMD formerly being discharged from the sites, and slight to negligible improvements to the water quality were achieved on three of the sites. A report addressing considerations for future reclamation and project specific recommendations was furnished to ADIR.

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Appendix A: Tabular Summary of Core Data to Characterize the Program

Appendix B: State Comments on the Report

LIST OF ACRONYMS USED IN THE REPORT

ABA – Acid Based Accounting
ADCNR – Alabama Department of Conservation and Natural Resources
ADIR – Alabama Department of Industrial Relations
AMD – Acid Mine Drainage
AML – Abandoned Mine Land
AMLIS – Abandoned Mine Land Inventory System
AOC – Approximate Original Contour
ASMC – Alabama Surface Mining Commission
BFO – Birmingham Field Office
CHIA – Cumulative Hydrologic Impact Assessment
CIA – Cumulative Impact Area
EY – Evaluation Year
FAM – Federal Assistance Manual
FTACO – Failure-to-Abate Cessation Order
MCR – Mid-Continent Regional Office
NEPA – National Environmental Policy Act
NOV – Notice of Violation
NPDES – National Pollutant and Discharge Elimination System
OSM – Office of Surface Mining
PAD – Problem Area Description
PHC – Probable Hydrologic Consequences
POV – Pattern of Violation
PSD – Program Support Division
Rules – Rules of the Alabama Surface Mining Commission
SMCRA – Surface Mining Control and Reclamation Act
USFWS – U.S. Fish and Wildlife Service

I. INTRODUCTION

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining (OSM) in the U.S. Department of the Interior. SMCRA provides authority to OSM to oversee the implementation of and provide Federal funding for State regulatory and abandoned mine land programs that have been approved by OSM as meeting the minimum standards specified by SMCRA. This report contains summary information regarding the Alabama Regulatory and Abandoned Mine Land (AML) Programs and the effectiveness of the Alabama programs in meeting the applicable purposes of SMCRA as specified in section 102. These programs are administered by the Alabama Surface Mining Commission (ASMC) and the Alabama Department of Industrial Relations (ADIR). This report covers the period of July 1, 2005, to June 30, 2006. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at OSM's Birmingham Field Office (BFO), 135 Gemini Circle, Suite 215, Homewood, AL 35209.

II. OVERVIEW OF THE ALABAMA COAL MINING INDUSTRY

The majority of Alabama's coal is ranked high-volatile A bituminous. Moderate amounts of low and medium-volatile A bituminous coal also exist. The coal is generally of good quality, and most beds have low percentages of sulfur and ash.

Alabama has four coalfields that are part of the great Appalachian coal basin - the Plateau field, the Warrior field, the Cahaba field, and the Coosa field. Alabama's total coal reserves have been estimated at 4.8 billion tons. A total of 3.1 billion tons is estimated as recoverable reserves (0.73 billion tons is recoverable by underground mining, i.e., overburden of greater than 120 feet; and 2.4 billion tons are recoverable by present strip mining techniques, i.e., overburden less than 120 feet). A total of 9,700 square miles of the State is underlain by coal. Coal is the most abundant and important mineral resource in the Warrior, Cahaba, and Coosa fields. The great majority of coal mined today is in the Warrior field. The Plateau field, with a greater area than all the other coalfields combined, has attracted little commercial mining. The coal mined in Alabama is used principally for electric power generation. Other uses include methane gas recovery and coke production.

Lignite also occurs in the Coastal Plain of Alabama in irregularly-shaped deposits that may be discontinuous and highly variable in thickness. Deposits of lignite have been identified from Sumter and Choctaw Counties in the west to Barbour and Henry Counties in the east. Lignite has potential use as an industrial fuel, fuel for steam electric generating facilities, and for gasification. There is no current lignite mining in the State.

Coal is recovered by both surface and underground mining techniques. Surface mining in Alabama includes auger, contour, and area methods. Room and pillar and longwall methods are used for underground mining. Prior to 1986, surface mining predominated; since that time, underground mines have accounted for the majority of the coal recovered.

For calendar year 2005, 63.0 percent of the coal mined was by underground mining (gross tonnage recovered by underground mining – 14,358,905; gross tonnage recovered by surface mining – 8,361,176; see Table 1). Underground mining operations employed 2,738 people while surface mining operations employed 1,240 people as of March 31, 2006.

The Alabama coal industry has seen an increase in demand for coal since mid-2002. New demands for coal are fueled by higher natural gas prices, making coal more attractive to producers of electricity, as well as general improvements in the United States economy. Exporting coal to foreign countries has also impacted coal demand. These demands have had a predictable effect on coal prices. Coal production has increased 15 percent over 2002 figures. On June 30, 2006, ASMC reported 58 active coal mining operations in the State. Forty-two surface mines, nine underground mines, four preparation and loading facilities, and three coal fines recovery operations were actively producing coal in Alabama. Production reports show that bituminous coal was produced in 11 Alabama counties: Bibb, Cullman, Fayette, Franklin, Jackson, Jefferson, Marion, Shelby, Tuscaloosa, Walker, and Winston. Approximately 72 percent of the mine sites are located in Jefferson, Tuscaloosa, and Walker Counties.

III. OVERVIEW OF PUBLIC PARTICIPATION OPPORTUNITIES IN THE OVERSIGHT PROCESS AND THE STATE PROGRAMS

Opportunities for public participation occur at significant points in the Alabama regulatory program and involve the ability of the public:

- To request that areas be designated as unsuitable for mining;
- To notification by advertisement of permit application receipt;
- To review permit and revision applications;
- To contest the decision of the Commission on permit applications and revisions;
- To request an inspection of a mine site;
- To object to proposed bond releases;
- To initiate civil suits; and
- To petition to initiate rulemaking.

Monthly meetings of the Alabama Surface Mining Commission are open to the public.

Opportunities for public participation in the Alabama AML Program occur at the time of:

- Project selection;
- Grant application;
- Consultation under the National Environmental Policy Act (NEPA);
- Obtaining right of entry documents; and
- Securing amendments to the State Reclamation Plan.

On April 20, 2005, letters were sent to 16 Federal and State agencies and environmental organizations to alert the public of the opportunity for involvement in the BFO's

oversight process. In the letter, recipients were asked to provide the BFO with any questions, issues, or concerns that could be addressed in oversight studies. No responses to these letters were received.

IV. MAJOR ACCOMPLISHMENTS/ISSUES/INNOVATIONS IN THE ALABAMA PROGRAM

Alabama Regulatory Program

ASMC continued to successfully administer its regulatory program during Evaluation Year (EY) 2006 to achieve the goals identified in section 102 of SMCRA. The BFO conducted regulatory program studies and engaged in assistance activities to characterize the success of the State's program and to provide assistance in specific areas.

During the evaluation year, ASMC issued 13 new permits and eight permit renewals. Eighty-eight permit revisions were approved. Ten permit transfers were approved. ASMC processed 29 notices of intent to explore. Two applications for Small Operator Assistance were approved. A total of 2,679 inspections were conducted, including 2,140 complete inspections (242 inspections on exploration notices of intent to mine) and 539 partial inspections (13 inspections on exploration notices of intent to mine). There were 217 inspectable units, including active, inactive, and abandoned permits, as of June 30, 2006.

ASMC issued 123 Notices of Violation (NOV), representing 155 violations, and 10 Failure-to-Abate Cessation Orders (FTACO's) with a total of 16 violations (not including vacated violations).

ASMC has reduced the number of inspectable units subject to reclamation by surety or other third party in-lieu of bond forfeiture from 27 to 20. Several of the remaining sites are close to achieving final reclamation and Phase III bond release. This acceleration in final reclamation of these sites is due, in part, to ASMC assigning primary inspection responsibilities of such sites to a single key inspector who has been able to more closely monitor reclamation progress and prompt the surety or third party to meet agreed deadline dates.

During the past fiscal year, the ASMC achieved 100% collection of delinquent civil penalties from active operators through the coordination of efforts between the Legal and Administrative divisions. Compliance was achieved by cross-checking to ensure that no permitting action, bond release, license renewal, or other approval would be given to an operator or permittee until delinquent penalties were paid.

The ASMC collected \$16,535.75 in penalties and \$23,500 in reclamation costs recoupment from defunct operators through asset identification and assertion of appropriate legal claims.

ASMC continues to develop and make use of computer systems to assist the Inspection and Enforcement Division to more efficiently carry out its responsibilities. A sediment pond database was created in which all permitted basins are identified and certification dates are noted. The database aides the inspection team in keeping track of recertification dates and pond maintenance requirements.

A separate data system was established to track abatement due dates and reflect the current status of pending enforcement actions. This database prompts inspectors to take timely follow-up action as appropriate.

The ASMC is continuing to work on the largest bond forfeiture reclamation site ever taken on by the Agency (Alabama Land and Mineral, North Johns Mine). The site consists of 558 acres to be reclaimed at a cost in excess of \$3.9 million.

Both permit managers with the ASMC retired during EY 2006. The ASMC successfully filled both positions. Two field inspectors have also been hired and trained this evaluation year.

Alabama Abandoned Mine Land Program

ADIR successfully administered the AML Program during EY 2006 as outlined in the AML Reclamation Plan and policies and procedures established in the annual AML grant. The AML Program completed 18 projects (including eight emergency projects) during the evaluation year. Pothole subsidence events were the predominant emergency project problem with seven of the eight projects involving subsidence. There was one emergency project that involved burning gob.

Reclamation achieved by non-emergency activities included 14,600 linear feet of dangerous highwall, 196.6 acres of spoil, and three portals. A total of 196.6 acres were affected by the reclamation. The data presented in Table 6 characterizes the status of AML reclamation in Alabama. The data is presented by problem type, showing reclaimed versus unreclaimed figures.

V. SUCCESS IN ACHIEVING THE PURPOSES OF SMCRA AS DETERMINED BY MEASURING AND REPORTING END RESULTS

To further the concept of reporting end results, the findings from performance reviews and public participation evaluations are being collected for a national perspective. These findings include descriptions of the number and extent of observed off-site impacts, the number of acres that have been mined and reclaimed and 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 the BFO that provide additional details on how the following evaluations and measurements were conducted.

A. Off-site Impacts:

OSM annually evaluates and reports on the effectiveness of ASMC's regulatory program in protecting the environment and the public from off-site impacts resulting from surface coal mining and reclamation operations. Off-site impact data is gathered nationwide in order to portray the on-the-ground success of State programs in preventing or minimizing off-site impacts.

An off-site impact is defined as anything resulting from coal mining that negatively affects resources (people, land, water, structures). The impact must also be regulated or controlled by an applicable State program, must be coal mine related, and must occur outside the area authorized by the permit for conducting mining and reclamation activities. For EY 2006, off-site impact data was collected for the period of July 1, 2005, through June 30, 2006, during the BFO's field inspections and file reviews of State inspection reports, NOV actions, and bond releases.

The field and file reviews were conducted to determine if the State properly recorded off-site impacts for the inspectable units reviewed by the BFO. BFO inspections of these units occurred throughout the evaluation year, beginning in July 2005 and ending in June 2006. Of the 10 inspections performed for the reclamation success study, no off-site impacts were identified. Four off-site impacts were identified during the BFO's complete inspections. All of four off-site impacts were classified as previously existing; ASMC had previously taken enforcement action to address the observed concerns. Remediation and prevention were addressed for each off-site impact identified by the BFO. The examination of the State NOV database and associated hard-copy of the State NOV's identified an additional 36 off-site impacts not associated with the BFO studies. The BFO did not inspect bond forfeiture sites for off-site impacts.

A total of 40 off-site impacts, with 40 effects on resources involving people, land and water, were identified on 24 of the 217 inspectable units. Effects on resources were determined to be major in three cases, moderate in five cases, and minor in 32 cases. More than half of the off-site impacts (27 of 40) that are mentioned below were hydrology related impacts. The impacts were associated with failure to meet effluent limitations (13), uncontrolled runoff (10), failure to build or maintain basins (2), and failure to maintain diversions properly (2). There were nine impacts related to encroachment which included conducting mining activities outside of the permitted and bonded area (4), failure to maintain the 100' setback (2), failure to bond on all disturbed acreage (2), and other general (1) which related to placing coal waste material on a county road. There were four blasting related off-site impacts which included the failure to prevent damage outside of the permit area (1), failure to control flyrock (1), failure to control airblast (1), and failure to blast within peak particle velocity (1).

Fifty-nine off-site impacts occurred on 34 inspectable units in 2004; 47 off-site impacts occurred on 28 inspectable units in 2005; and 40 off-site impacts occurred on 24 inspectable units in 2006. Alabama's inspectable units as of June 30, 2006, totaled 217, which includes 178 active/inactive/abandoned permits and 39 permits which were bond

forfeitures. Therefore, in EY 2006, there were 193 (89.0%) inspectable units free of off-site impacts. The number of off-site impacts decreased in EY 2006, and there was a 1.8% increase in inspectable units free of off-site impacts from EY 2005.

The BFO reviewed hydrology related impacts and found that the majority of off-site impacts were due to the failure to meet effluent limitations and uncontrolled runoff. The impacts appear to be isolated occurrences related to pH issues, weather and/or construction and maintenance issues that are not programmatic in nature. The ASMC has required abatement which included, but was not limited to, water treatment, erosion control measures, and repair of diversions.

In 2005, there were six encroachment off-site impacts. There was a slight increase in 2006 to nine impacts. It was noted that one company had four encroachment off-site impacts which involved conducting mining outside of the permitted and bonded area and failure to bond on all disturbed acreage. The ASMC reviewed the violations and has required this company to delineate and mark the permit boundary and to reclaim the area disturbed. The ASMC is continuing to monitor this company and is issuing NOVs as appropriate.

There has been a reduction in the number of blasting off-site impacts from seven in 2005, to four this year. The steps initiated by the ASMC to communicate with companies and blasting contractors involved in blasting violations appear to be a positive influence in reducing the number of blasting related off-site impacts.

The ASMC inspection staff routinely discusses potential field problems with mine site personnel to prevent off-site impacts and violations from occurring. The BFO has concluded from this review that the State is discovering and citing violations involving off-site impacts as they occur. No instances were noted in which the State inspector failed to take proper enforcement actions.

B. Reclamation Success:

ASMC's effectiveness in ensuring successful reclamation through compliance with performance standards relative to bond release was evaluated. A sample of bond releases reviewed by ASMC after July 1, 2005, was selected for this evaluation. The bond releases reviewed encompassed eight permitted sites. Nine increments were actually inspected with two increments located on the same permitted site. This sample included Phase I, II, and III bond releases. The field reviews occurred throughout the evaluation year. Eight of the sites were reviewed prior to the ASMC's approval/denial of the bond release, and one was inspected the same day as ASMC's approval/denial.

The following parameters were evaluated through field observations and/or review of the State bond release files:

- Phase I - Approximate Original Contour (AOC) achievement
- Phase II - Replacement of soil resources, vegetation stability

- Phase III - Postmining land uses, successful revegetation, surface water quality and quantity, restoration of groundwater recharge capacity, comparison of premining to postmining surface water quality and quantity restoration

Phase I

The BFO inspected and conducted permit file reviews on four increments requested for Phase I bond release, totaling 630 acres. These increments were field inspected for AOC achievement, toxic material coverage (where indicated), and the removal of temporary structures and equipment. When indicated, water discharge was tested, toxic material coverage was measured, and topsoil variance compliance was analyzed. A permit file review was conducted to compare the premining/postmining surface and groundwater data and compliance with National Pollutant and Discharge Elimination System (NPDES) requirements.

All four of these increments were determined to have met the requirements for Phase I bond release. These increments had achieved AOC, and toxic material had been covered when applicable. The permit files reflected a comparison of premining/postmining surface/groundwater quality, compliance records of NPDES monitoring points were on file, and documentation reflected that temporary structures and equipment had been removed. OSM agreed with ASMC's approval of these Phase I bond release requests.

Phase II

The BFO inspected and conducted permit file reviews on three Phase II increments representing 196 acres. On-site inspections were conducted to determine the presence of topsoil or suitable soil replacement, to verify the establishment and presence of approved vegetation, to determine that vegetative success standards were met, and to assure that the site was stabilized. A determination was also made that lands were not contributing suspended solids off the permit and that removal of temporary ponds and diversions was completed. The permit files were reviewed to determine acres of basins approved as permanent water impoundments, the applicability of prime farmland productivity, and the presence of topsoil waivers.

Three increments in this sample met the requirements for a Phase II bond release. These increments reflected suitable soil replacement, adequate and approved species of vegetative cover, and site stabilization (no rills or gullies). All temporary ponds and diversions had been appropriately removed, remaining basins were approved as permanent water impoundments, and reclamation did not contribute to suspended solids off the permit. One increment in this sample did not meet the requirements for a Phase II bond release due to insufficient vegetative cover. This bond release request was denied by ASMC. OSM agreed with ASMC's determination of approval/disapproval of these Phase II bond release requests.

Phase III

The BFO inspected and conducted permit file reviews on two increments, totaling 84 acres, for Phase III bond release. These sites were field inspected for the achievement of postmining land use and successful vegetative cover. The permit files were reviewed to determine the approved postmining land use, the monitoring of the quality of surface and groundwater, and compliance with surface water discharge effluent limits. The permit files were also reviewed to determine that the appropriate liability periods had been met, and that productivity data was adequate.

These two increments were determined to have met the requirements for a Phase III bond release. These increments had achieved postmining land use and vegetative success, and had met water quality standards. Permit files reflected that water leaving the minesite was comparable to or better than pre-mining conditions (where applicable) and that compliance with surface water discharge effluent limits had been verified. In all cases, the liability periods had been met. OSM agreed in both cases with ASMC’s final determination of approval of the Phase III bond release requests.

The BFO determinations were consistent with ASMC’s final actions on Phase I, II, and III bond releases on sites inspected in this sample. All approved bond release acreage in this sample met the approved reclamation plan, postmining land use, and required release standards. Based upon this review, the BFO has determined that ASMC’s decisions on approving bond release requests met the requirements of the approved Alabama surface mining program. The table below shows figures for acres bonded, released, and forfeited from 1983 – 2005 and for 2006. The bond release and forfeiture figures for 2006 are also shown in Table 5.

| Evaluation Year | Acres Bonded | Phase I Release Acres | Phase II Release Acres | Phase III Release Acres | Bond Forfeiture Acres |
|------------------------|---------------------|------------------------------|-------------------------------|--------------------------------|------------------------------|
| 1983 – 2005 | 116,983 | 81,081 | 53,596 | 58,673 | 13,497 |
| 2006 | 5,435 | 2,064 | 1,369 | 2,406 | 637 |
| TOTAL | 122,418 | 83,145 | 54,965 | 61,079 | 14,134 |

C. Customer Service:

The evaluation of ASMC’s procedures and permitting actions relative to public participation in the permit review process was selected for review. This area was last reviewed during EY 2003.

The Rules of the Alabama Surface Mining Commission (Rules) establish standards to ensure that the public has been afforded an opportunity to be involved in the permit process. These Rules further outline requirements of both the ASMC and the permit applicant in providing this opportunity to the public.

The applicant is required to advertise each complete application for a permit or a permit renewal in a local newspaper at least once a week for four consecutive weeks. The applicant is also required to file a full copy of the application with the recorder at the courthouse of the county where the mining is proposed to occur, or an accessible public office approved by the Regulatory Authority. The Regulatory Authority is required to notify local governmental agencies and specific State and Federal agencies of the applicant's intent to mine and the location of the proposed mining. Any person or public entity having an interest which is or may be adversely affected by the decision on an application may submit written comments or objections concerning an application for a permit or renewal of a permit within 30 days after the last publication of the newspaper notice. The Regulatory Authority must consider comments and objections during the approval/disapproval process of the application. The Regulatory Authority conducts informal hearings when requested.

The review sample was established as all new permit applications submitted to ASMC between July 1, 2004, and September 30, 2005. The review sample consisted of 12 new permit applications received by ASMC during this timeframe. The permit application files were reviewed to determine whether the permit applications had been made available for public review, and the data collected were compared to procedures required in the Rules.

The 12 applications for new permits in this review contained all of the required documentation for the actions as outlined above. All new permits had been advertised for the required period and location. Documentation was available that verified all pertinent local, state, and federal agencies had been notified; and the new permit applications were made available for review and copying at a local library or other approved location. All permits were issued at least 30 days after the comment period.

In accordance with ASMC Rule 880-X-8K-.05, written comments and/or objections received by the ASMC were transmitted to the applicant, and all comments and/or objections were addressed by the ASMC. Comments and/or objections are filed in the permit file and are available for public review. Examples of resolution of

comments/objections included reviews of sites for wetlands, water quality issues, endangered or threatened species, concerns raised by citizens about erosion and pollution control on disturbed acres, and landowner concerns regarding blasting effects.

One informal hearing was requested during this review period; however, an ASMC final decision of approval or disapproval on the permit application has not been made.

Based on this review, the BFO has determined that ASMC is meeting the requirement of insuring that new permit applications are made available to the public for review and comment. The ASMC addresses comments and/or objections regarding new permit applications and resolves any issues before the permit is issued. All comments/objections are forwarded to the permit applicant. All comments/objections are available for public review in the permit file. Informal hearings are held when requested in an effort to resolve issues before a permit is issued.

VI. OSM ASSISTANCE

OSM's oversight role has shifted to focus more on on-the-ground reclamation success and end results than on processes. OSM's changing role now emphasizes assisting the State in improving its regulatory and abandoned mine land programs by identifying program needs and offering financial, technical, and programmatic assistance as necessary to strengthen the State programs. The BFO routinely provides information to ADIR and ASMC regarding new policy guidelines and procedures as well as changes in existing guidelines and procedures.

AMD Mitigation Techniques for Alabama

The Alabama AML program requested technical assistance from the OSM MCR to evaluate passive acid mine drainage (AMD) mitigation techniques used on five completed Appalachian Clean Stream Initiative projects. The projects were reclaimed from the inception of the Clean Streams Program through July 1, 2004. The purpose of the request was to determine which reclamation techniques had eliminated or significantly reduced AMD problems and to identify techniques or practices that could be used when the State develops future AMD remediation projects.

The reclamation of two sites resulted in the elimination of the AMD formerly being discharged from the sites. The AMD reclamation techniques for these two sites included surface reclamation, burial of acid forming spoil and gob material, and the utilization of open limestone channels to collect and direct the surface runoff to dry ponds and limestone leach beds to add alkalinity.

Slight to negligible improvements to the water quality were achieved on three of the sites. One project employed in-situ AMD treatment with kiln dust; water from an area of AMD producing materials was directed through the basin containing the kiln dust. One of the projects employed a series of limestone leach beds, limestone drains, and ponds to boost alkalinity in the stream before it commingled with the AMD. Another project employed burial of the gob material, limestone leach beds, open limestone channels, and catch basins.

The MCR with participation of the BFO collected water quality data and evaluated each of the five AMD sites. A report addressing considerations for future reclamation and

project specific recommendations was furnished to ADIR. The report identified which reclamation techniques had eliminated or significantly reduced AMD problems and identified practices and techniques that could be used in future AMD elimination/reduction efforts.

VII. GENERAL OVERSIGHT TOPIC REVIEWS

A. Program Evaluations of the State Regulatory Program

Determination of Pattern of Violations

This study was conducted to insure that reviews were conducted by ASMC to determine whether a pattern of violations may have existed, that the reviews were conducted in compliance with the requirements of 880-X-11C, and that appropriate action was taken.

The Rules state that the ASMC may make a determination that a pattern of violations exists or has existed based on two or more inspections of the permit area within any 12-month period after considering the circumstances, including:

- the number of violations cited on more than one occasion of the same or related requirements of the Act, the Rules, or the permit;
- the number of violations cited on more than one occasion of different requirements of the Act, these regulations, or the permit; and
- the extent to which the violations were isolated departures from lawful conduct.

Although the Rules allow for the discretionary determination that a pattern of violations exists or has existed based on only two inspections and violations of the permit area within any 12-month period, the ASMC does not routinely review violations for a possible determination of pattern of violations when only two violations of the same type are cited for a permit. The inspectors, however, discuss with the permit operator the future potential for a determination of a POV when two of the same violations are written. A review for a possible pattern of violations is not conducted until three violations of the same requirement have been written during a 12-month period.

The Rules state that the ASMC shall determine that a pattern of violations exists if there are violations of the same or related requirements of the Act, the regulations, or the permit during three or more inspections of the permit area within any 12-month period. When three violations of the same or related violation are identified within a 12-month period, the ASMC inspector forwards a request for review for a possible pattern of violations and issuance of a show cause order to the Legal Division. Any permit which reflects three violations cited for the same or related requirements of the Act during three or more inspections of the permit area within any 12-month period is determined to have a pattern of violations.

The Rules state that the Director of the State Regulatory Agency shall issue an order to a

permittee requiring him to show cause why his permit should not be suspended or revoked and shall provide opportunity for a public hearing when, based on inspections, the Director determines that a pattern of violations of any requirements of the Act, or any permit condition required by the Act exists or has existed, and also finds that the violations are caused by the unwarranted failure of the permittee to comply with any requirements of the Act or any permit conditions, or that such violations are willfully caused by the permittee.

The ASMC Director may decline to issue a show cause order, or may vacate an outstanding show cause order if he finds that exceptional factors in the particular case that it would be demonstratively unjust to issue or to fail to vacate the show cause order. The basis for this finding is to be fully explained and documented in the records of the case.

For the timeframe July 1, 2003 – September 30, 2005, ASMC cited 430 violations. These violations were issued to operators at 113 permitted sites. ASMC had made a determination that a pattern of violations existed on six permitted sites. Five show cause orders were written. The violations on these permitted sites were abated and terminated either by the operator or another company which assumed the responsibility for the violations upon transfer or as a result of a repermit, except for one permitted site which was forfeited. The Show Cause Orders were dismissed as a result of transfers, repermitting, discussions with the company, or the forfeiture process.

As a result of our file review, we recommended that ASMC more fully document the factors present that result in declining to issue a show cause order or vacating an outstanding show cause order. As required by the Rule, the basis for these findings must be fully explained and documented in the records of the case.

During the review period, ASMC inadvertently did not identify the occurrence of a POV on two permits. ASMC has established procedures with internal controls to assure the identification of all POV's. Those procedures include a check for POV's on a quarterly basis. A computer generated list of all violations for the latest 15-month period is reviewed for any permit that may have a POV. All POV's identified are then investigated to determine if a written request for a show cause order has been made by the inspector of the permit identified. In addition, any permit that has two of the same or related violations is identified and the inspector alerted to begin tracking the problem. This

allows the inspector an opportunity to notify the operator that if one more violation occurs of the same or related nature, a POV determination will result for that permit and a show cause order requested.

Additional training and discussions have been held with both the entire inspection staff and with each inspector individually. These sessions conveyed to the staff the importance of identifying POV's. ASMC considers violations as related in cases where

blasting is out of compliance, certain vegetation rules are out of compliance, or encroachment has occurred on unpermitted or unbonded acreage.

We believe ASMC has initiated actions and measures that will address the study findings related to the determination of patterns of violations.

Stream Buffer Zone Waivers

The BFO conducted a study to determine how ASMC responds to State and Federal fish and wildlife agency comments concerning stream buffer zones and how they document and support their decisions on buffer zone waivers. This study was developed as a result of the BFO's annual public participation efforts, which provide State and Federal agencies and environmental groups an opportunity for involvement in the BFO's oversight process. The U.S. Fish and Wildlife Service (USFWS) indicated that they were interested in how ASMC handled their consultation responses concerning stream buffer zones. The sample population of this study was all permits and subsequent significant revisions issued from October 2003 to November 2005. File reviews of 22 permits and 14 significant revisions of these permits were completed, and interviews with State personnel were conducted.

The study concluded that ASMC reviews permit and revision applications for stream buffer zone issues, and that they require applicants to include fish and wildlife resource information and protection plans in their applications. They notify the State and Federal fish and wildlife agencies concerning the receipt of permit and revision applications, and they make informed decisions concerning whether revision applications propose significant alterations to their approved operations plans in the area of fish and wildlife resources. They typically make findings in approved permits addressing stream buffer zone waiver decisions.

The study also found that ASMC needed to strengthen their program in the area of stream buffer zone waivers and to make certain that they comply with regulations concerning this issue. In three permit actions, the operator requested a waiver, and either the USFWS or the Alabama Department of Conservation and Natural Resources (ADCNR) indicated that they did not want the 100 foot buffer zone to be waived. ASMC approved the three waiver requests. To enhance coordination and cooperation with the USFWS and ADCNR, ASMC agreed to further consult with these agencies before a decision is made to waive a stream buffer zone if either the USFWS or ADCNR requested that no waiver be given.

In one instance, the USFWS and ADCNR did not have the opportunity to comment on a proposed stream buffer zone waiver because the applicant's request was received after consultation had been completed. ASMC agreed that, if stream buffer zone waiver requests were received subsequent to the receipt of USFWS/ADCNR letters, they will require the applicant to re-consult with these agencies about this change to the application prior to ASMC approving the permit or revision.

Although ASMC routinely makes permit findings concerning buffer zone waivers, their determinations do not clearly address all the findings required by ASMC regulations. ASMC has agreed to make all the required findings in the future.

PHC Determinations and CHIA

The BFO with assistance from the Mid-Continent Region, Program Support Division (PSD), conducted a review of the adequacy and appropriateness of ASMC's documentation supporting Probable Hydrologic Consequences (PHC) determinations and ensuing Cumulative Hydrologic Impact Assessments (CHIAs) for permit issuance. The technical review conducted by PSD personnel included a detailed evaluation of various sections pertinent to the PHCs and CHIAs in five surface mining permits issued by ASMC between June 2003 and September 2005.

ASMC regulations require the applicant to submit sufficient data on existing water resources for the permit and adjacent areas to establish pre-mining water quality and quantity under seasonal conditions. Both geologic and hydrologic baseline conditions must be sufficiently characterized to assess the probable hydrologic impact of the proposed mining on the hydrologic balance, and to allow the ASMC to determine if the cumulative effect of the proposed operation with other anticipated mining will result in material damage to the hydrologic balance outside the permit area.

The PHC determination must address all potential consequences of the proposed mining operation on the hydrologic balance of the area and include numerical predictions of post-mining water quality/quantity (surface and ground water). A comprehensive PHC determination includes, at a minimum, discussions with specific findings concerning: overburden properties; disposal/storage operations (i.e. coal processing waste, non-coal waste, coal combustion byproducts, etc.); erosion and sediment control measures; mining method(s); coal-bed methane recovery; subsidence; and mine pools. Generally, the PHC determination also identifies monitoring plans (sample locations, frequencies, parameters, etc.) that will be used to document both the short-term and long-term effects on local water resources and information on alternate water supplies. The criteria used to identify acid- or toxic-forming materials should be included in the PHC determination.

The CHIA must assess the probable cumulative impacts of all anticipated mining in a given area to assure that the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area. The CHIA must address specific operations and activities planned at the mine site. The cumulative impact area (CIA) must be delineated for each permit and described in the CHIA. Based on existing hydrologic conditions at the mine site and within the CIA, the CHIA should be site-specific and include numerical predictions of post-mining water quality and quantity for each permit. CHIAs should clearly establish specific material damage criteria and present site-specific findings.

The technical review of the five surface mining permits issued by the ASMC revealed

data submitted in the permit applications were generally inadequate in site-specific geologic, geochemical, and hydrogeologic information to support the PHC determinations. The quality, volume, and presentation of the submitted data varied greatly from application to application with much of the data insufficient or irrelevant due to the locations the data were obtained relative to the proposed mine sites.

Baseline data to support PHC determinations and CHIAs must include:

- Sufficient overburden holes providing acid based accounting (ABA) data to accurately characterize the geology of the proposed mine site.
- ABA information that reasonably reflects the volumetric influence of each overburden borehole and strata unit.
- Justification for the use of data from adjacent areas. The use of data from adjacent areas is acceptable when the geology is consistent (similar thickness, lithology, etc.), and the chemical composition is constant.
- Drill logs for all overburden holes and pertinent borings.
- Characterization of pre-mining ground-water quality and quantity. Monitoring wells must be located in critical areas to document existing conditions (up gradient and down gradient) and to monitor the effects of the mining operations once activities have begun.
- Site-specific ground-water and surface-water data.
- Baseline data on all domestic wells in use with the potential to be impacted by the mining operation. The baseline data is used to compare water quality and quantity information during mining to pre-mining conditions, and also to accurately characterize existing water resources as required by regulations.
- Drill logs and well-completion diagrams for all ground-water monitoring wells and pertinent domestic wells (if available).
- Baseline data to adequately characterize pre-mining surface-water quality and quantity.
- Surface-water points must be located in critical areas to document existing conditions (upstream and downstream) and to monitor the effects of the mining operations once activities have begun.

- Baseline information on all surface water bodies (including existing impoundments as applicable) with the potential to be impacted by the mining operation.

The CHIAs reviewed were insufficient and did not include information or data specific to the mine site in question. The CHIAs did not discuss existing hydrologic conditions or the anticipated effect(s) of the mining operation on the hydrologic balance. The cumulative effect of the proposed operation along with existing or planned mined areas in the respective watershed was not addressed.

Recommendations to strengthen PHC determinations and CHIAs included the development of guidance documents to address:

- (1) the proper number of overburden holes for ABA, use of proper sampling and testing methods, and methods for calculation of a volumetrically-weighted average ABA;
- (2) an approach to review and verify laboratory data submitted in the permit applications;
- (3) the collection of baseline water quality data including the proper number and location of surface and ground water monitoring sites; and
- (4) methods of numerical prediction of post-mining water quality and quantity, as well as procedures for determining material damage criteria.

In response to this review, the ASMC endorsed the need to improve and strengthen the adequacy and appropriateness of documentation supporting PHC determinations and the subsequent CHIAs. They have initiated the development of a workplan and are proactively involved in working with OSM to implement actions to address the recommendations.

Subsidence Control Study

In EY 2001, the BFO reviewed subsidence control regulations as they apply to underground permits utilizing longwall mining. At the conclusion of the EY 2001 study, the BFO made six recommendations to the ASMC relating to various parts of the subsidence regulations reviewed. The BFO conducted a follow-up review in EY 2006 of the recommendations and comments made in the EY 2001 Subsidence Control Study.

Four active longwall mining operations were reviewed in this study. Each company's subsidence control plan and policies were reviewed to document any changes that occurred after the conclusion of the EY 2001 study. Two companies had updated their subsidence control plans within the last year. The other two companies' subsidence control plans, policies, and procedures had not changed since the EY 2001 study. The

study findings are as follows:

The subsidence control plan map was reviewed to verify that the location and types of all structures and drinking, domestic, and residential water that could be damaged or contaminated by subsidence were identified on the map. The BFO found that all companies identified structures on the map; however, one company did not have a key on the map to properly label the structures represented. Three of four companies did not identify on the map the location of wells that were in use prior to and/or after undermining. Other water resources (public water) and utility lines were identified on the maps. The ASMC will ensure that in the future, subsidence control maps will show the location of all drinking, domestic, and residential water that could be contaminated, diminished, or interrupted by subsidence.

ASMC regulations require a survey of the quantity and quality of all drinking, domestic, and residential water supplies within the permit area and adjacent area that could be contaminated, diminished, or interrupted by subsidence. The BFO found water quality data had been collected by three companies (one company had not undermined any residences); however, the water quality testing was inconsistent. There were some wells that were sampled for water quality, while other wells were not. There was not a clear definition of why some water resources were not evaluated. The ASMC stated that water surveys would be completed during the pre-subsidence survey to ensure the most recent water data is collected, and that the locations of all streams, domestic water wells, lakes, ponds, and other impoundments will be inventoried in the Geology-Hydrology baseline data and will also be shown on the subsidence map.

The BFO reviewed each company's policy on water replacement and compensation. The BFO found that two of the four companies utilized a 20-year period when calculating for water compensation. In all cases, the companies replaced all water resources before undermining. Each property owner was connected to the public water system (if not already connected) at the expense of the company.

One company did not have a written policy on water replacement and compensation; however, it was clear during an interview that the company does replace water loss and compensates the landowner. While underground mining companies have flexibility in how water compensation requirements are employed, the Subsidence Control Plan needs to clearly state the company's policy on water compensation and how this policy will be implemented. The ASMC stated that the regulations require that the subsidence control plan contain a "description" of the measures to be taken to replace adversely affected water supplies. This requirement can be satisfied by a clear statement of the permittee's policy.

The regulations require the permittee to notify the landowner in writing six months prior to undermining. The notification letter must include the identification of the specific area in which mining will take place, dates that specific areas will be undermined, and the location or locations where the operator's subsidence control plan can be examined. The

BFO reviewed notification letters sent to landowners by all four companies. In all cases, the companies notified landowners in writing six months prior to undermining. One company did not include the location where the operator's subsidence control plan could be examined. All other notification letters included the required information. In reviewing notification letters, we found that all property owners were notified; however, not all occupants (renters) of property were notified in writing. In an effort to achieve full compliance with the requirement, the ASMC will instruct field inspectors to advise the permittee that their files must document that written notice has been sent to each specific property known to have a mailing address.

A description of methods to be employed to minimize damage from planned subsidence should be included in each company's subsidence control plan. Each company's efforts to minimize damage were reviewed and a description of this plan was located in their subsidence control plans. Two of the four companies employed methods to minimize damage to all structures within the area of undermining. If measures to prevent material damage are not used to prevent damage to surrounding structures, the regulations require a demonstration that the costs of minimizing damage exceeds the anticipated costs of repair, documentation that minimization measures would constitute a threat to public health or safety, or written consent from the landowner of the structure that mitigation measures not be taken. The ASMC will ensure that each subsidence control plan for planned subsidence includes provisions for preventative measures to be taken to minimize material damage to certain structures.

This Subsidence Control Study was conducted as a follow-up to the EY 2001 Subsidence Control Study. Six recommendations were developed during the EY 2001 study and were the focus of this review. Five of the six areas reviewed will require additional attention by the ASMC to bring each company into compliance with current subsidence control regulations. The ASMC is continuing to work with underground mining companies and their contractors to ensure that subsidence control regulations are being upheld.

Topsoil Substitution Review

The BFO and MCR conducted this joint review to examine the procedures used by permittees in substantiating that the substitute material meets permit specifications and to review ASMC's procedures for verifying the permit complies with topsoil replacement standards found in the Rules and ASMC policy. The ASMC requires that, where the applicant proposes to use selected overburden materials as a supplement or substitute for topsoil, the applicant shall provide results of the analyses, trials, and tests required. The reclamation plan must include a demonstration of the suitability of topsoil substitutes or supplements.

The sample population of five permits with Phase I bond releases that had topsoil waivers were reviewed.

The post-mine particle size analyses, submitted by the permittee prior to Phase I bond release, indicated that all limitations and conditions of the variance approval had been met per ASMC policy; however, ASMC needs to reexamine the science and regulatory background for the use of topsoil substitute and bring policy into alignment with the approved regulatory program provisions. ASMC needs to develop topsoil and overburden sampling criteria to be consistent with its approved program.

During the course of this review, certain aspects were identified as needing improvement. The following recommendations were made:

- Guidelines should be implemented to ensure the permittee's sampling technique clearly describes the topsoil resources that are utilized when taking soil samples.
- The applications for topsoil variances should provide a comparison of individual strata in the overburden column for a determination of the material best able to support vegetation.
- The application should include discussions on the weathering effects of overburden materials that are approved as substitute material, as pre-law soil samples have undergone oxidation.
- The test results of the soil fraction of the substituted material should be submitted prior to granting Phase I bond release. Analysis of the spoil material has direct bearing on the determination that the substitute material is suitable.
- A soil sampling technique should be developed to include all topsoil resources available on the permit.

The ASMC provided information on current permit applications and comment letters that demonstrate that all soil resources are represented in the sampling plan and that an adequate number of soil samples are being submitted. It was indicated that the practice of averaging topsoil values is no longer permitted, unless it can be demonstrated to be a valid procedure. The ASMC has reported that new sampling procedures and standards

are under development. In the interim, sampling adequacy will be determined on a case by case basis and post mining textural sampling procedures will be approved by the ASMC when submitted by the permittee.

Based on the results of this study, the permits reviewed demonstrated that requirements on topsoil substitute material particle size were met. However, other issues concerning topsoil substitute material were identified that need to be reviewed to assure that policies and procedures are consistent with regulatory requirements. ASMC has instituted some new practices and is requiring adherence to documented policies. In addition, they are re-examining topsoil substitution procedures and are developing guidance documents. A

draft has been submitted to OSM for review.

Acid-Toxic Materials / Special Handling Plans

For EY 2006, the BFO conducted a study to determine if ASMC is properly identifying permits that require acid/toxic materials special handling plans and to verify that operators are complying with the approved special handling plans. The mines chosen for the study included all surface mining permits actively removing coal in the Coker Formation. The Coker Formation was selected for this review because it is known to be extremely acidic. Thirteen permits were identified.

The BFO performed file and field reviews to address the following questions: (1) Are acid-toxic geologic layers identified in the permit; (2) If acid-toxic layers are identified, has ASMC required a special handling plan; (3) Were acid-toxic layers visible in the open highwall; (4) Was the vegetative cover on the mine site adequate; and (5) Are special handling plans being properly implemented?

Drill logs from the 13 permits were analyzed to determine if acid-toxic layers were present. The BFO used ASMC's definition of acidic layer, defined as having an acid/base account value of -5 or greater. The BFO's review indicated that acid-toxic layers are routinely identified as part of the pre-mining geologic testing on prospective mine sites. Our study identified acid-toxic materials at seven mine sites located in the Coker Formation.

Five permits contained a typical acid-toxic material handling plan that is designed to handle the disposal of coal stockpiles or any other acid-toxic material exposed on the surface. In the event that substantial amounts of acid-toxic overburden are present, a special handling plan may be required for disposal or neutralization. If this is the case, a detailed plan is devised for proper handling and disposal of these materials. One permit contained a plan that discussed spoiling the acidic material between alkaline overburden, adequately addressed neutralizing the acidic material. A second permit contained a plan for handling of toxic materials that would be implemented if periodic highwall inspections revealed the presence of toxic layers. It was unclear if inspections were being conducted.

For the field portion of the study, inspections did not identify any problems related to implementation of special handling plans and vegetation reviews did not indicate problems related to toxic materials.

Bond Forfeiture Reclamation

The study of ASMC's bond forfeiture reclamation program began in EY 2005. The initial portion of the study addressed the administrative components of the bond forfeiture reclamation program. That report was furnished to ASMC on July 14, 2005. This evaluation year the BFO evaluated the effectiveness of the program in reclaiming forfeited mine sites. The primary focus was the level of reclamation accomplished with

the amount of forfeited funds available for reclamation.

The study population was composed of 13 reclamation projects that included 15 permits. The sample represented the majority of the bond forfeiture projects reclaimed by ASMC from October 1, 2002, through February 28, 2006. Detailed project file reviews were performed prior to the field inspections to document the history of the sites and the proposed reclamation plans. The field inspections conducted by ASMC and OSM documented the adherence of the contractor to the reclamation plan agreed to by ASMC and considered the quality of the reclamation performed.

The review found that of the 3,219 acres forfeited on the 15 permits, ASMC's pre-design site evaluations determined it was only necessary to conduct reclamation on 1,112.05 acres. The total money forfeited and collected on the 3,219 acres was \$5,990,354.

ASMC modified ten of the 15 original reclamation plans, in order to address the specific site conditions. The State's changes typically included retaining temporary ponds as permanent impoundments and final cut impoundments. Final cut impoundments resulted when complete backfilling and grading of the open pits could not be achieved with the bond proceeds available.

The most significant changes identified as exceptions by the contractors included deleting reclamation of some temporary ponds, deleting sections of the highwalls to be reclaimed, and/or leaving final cut impoundments. The usual reasons for the exemptions were their costs for the reclamation identified by the ASMC exceeded the amount of money ASMC had available for the reclamation projects.

The study found the reclamation contractors closely adhered to the specifications in the ASMC reclamation plans. The reclamation was predominately of high quality and conducted by contractors familiar with mining and reclamation techniques. They also possessed the type and quantity of equipment necessary to complete the projects in an efficient and professional manner. It was noted during the field review that some of the

projects could benefit from additional erosion and sediment control measures and that post-construction maintenance may also be necessary on some. Fund availability limits additional measures in these areas.

The BFO found that ASMC operates its bond forfeiture reclamation program in a manner that achieves high quality reclamation and obtains the most reclamation possible with the funding available. The State's forfeiture reclamation program eliminated significant reclamation concerns. The completed projects eliminated highwalls, upgraded impoundments, returned the sites to approximate original contours, buried and/or treated acid-toxic materials, addressed water quality issues, and established useable land uses.

As a result of the BFO's review, it appears that some forfeiture reclamation costs are

higher than the projected costs used in the calculation of initial bond amounts. It was recommended the ASMC review cost information related to bond forfeiture reclamation projects to determine if adjustments in the amounts to calculate bonds should be made.

Grant Reviews

During EY 2006, the MCR performed grant reviews in the areas of ASMC's property management practices, drawdown and disbursement of Federal funds requirements, and payroll procedures.

A review of property records for the period of October 1, 2005, through April 30, 2006, and a visual verification of property found that ASMC follows property management requirements as describe in the Federal Assistance Manual (FAM). ASMC has adequate controls in place for the accountability and maintenance of property.

The drawdown review was to determine if drawdowns of Federal funds were in accordance with the actual immediate requirements, and to determine if funds were immediately disbursed as required by FAM. The State Treasurer disburses State funds to pay ASMC's expenses; therefore, the drawdown of Federal grant funds are reimbursement funds to the State Treasury.

The payroll review was conducted to determine if ASMC was in compliance with the State payroll documentation and procedure requirements. The review of ASMC's payroll documents for the period of April 1 through April 30, 2006, found that hourly time sheets were prepared and signed daily by the employees. The cost codes were recorded daily with hours worked. All time sheets reviewed were signed and approved by supervisors.

The studies determined that the State is in compliance with all requirements of FAM and other State and Federal laws and regulations for property management, cash drawdowns and disbursement of Federal funds, and payroll procedures.

B. Program Evaluations of the State Abandoned Mine Land Program

Abandoned Mine Land Inventory System

In order to address the findings of an audit of the Abandoned Mine Land Inventory System (AMLIS) conducted by the U.S. Department of the Interior Office of Inspector General, OSM requires that Field and Area Offices assure that each of their States has in place a system to ensure that data entered into the AMLIS is accurate and have on file a signed certificate stating that such a system exists and a description of that system. OSM reviews a sample of the information entered into AMLIS during the year to verify that it matches the information maintained in hard copy records.

To perform the study, the BFO reviewed all Problem Area Descriptions (PAD's) entered

into AMLIS by ADIR as part of the grant closeout process. A total of 23 PAD's and the corresponding AMLIS entries were reviewed. In addition to verifying that information entered into AMLIS during the year matched the information maintained in hard copy, the BFO also determined if the data on the PAD and the data inputted into AMLIS were accurate. For both reviews, feature and cost data, latitude/longitude entries, and administrative data were reviewed.

The study determined that, in the majority of cases, ADIR is developing accurate PAD's and entering data into AMLIS that is identical to the PAD data. Few significant problems were found (nine feature or cost errors and one administrative error out of approximately 1,400 entries). In three PAD/AMLIS entries, the project features and costs were not updated from funded to completed when the project was completed. ADIR also had not created completion PAD's for three emergency projects. Other problems were noted, but they did not involve feature or cost figures that would significantly affect AMLIS nationwide. Latitude/longitude entries have continued to improve over previous studies, due, in part, to collaborative efforts between the BFO and ADIR and ADIR's exhaustive work in this area.

The BFO review of ADIR's PAD certification policy showed that the State was not fully complying with the policy, and that this was contributing to errors in the system. ADIR agreed to make improvements in the steps that involved verifying PAD/AMLIS data once the data was entered into AMLIS, and rechecking and certifying the accuracy of the data on the PAD's and AMLIS reports. The BFO also recommended that a copy of the PAD/AMLIS documents associated with each project be filed in the project construction file.

Long Term Reclamation Success

Each evaluation year, the BFO conducts an on-the-ground review to document ADIR's success in reclaiming AML problems. This year the BFO evaluated ADIR's long term reclamation success. This study included projects completed more than five years, but less than ten, before the date of the study. Sixty-four non-emergency AML projects were completed during the period from September 1995 to June 2000. A sample size of 20 projects was evaluated.

The project files were reviewed to determine the following:

- Project goals, objectives and purpose
- Features reclaimed
- Reclamation techniques
- Problems encountered during reclamation process
- Post-construction maintenance performed

Site visits to the projects were made to determine the following:

- Does the project continue to meet planned objectives
- Were all features included in the project reclaimed

- Were the reclamation techniques effective in meeting project goals and objectives
- Percentage of vegetation coverage
- Types of vegetation (other than trees) on the site (including invasive species)
- Are trees present on the site
- Number and size of bare spots
- Presence of erosion or off-site sedimentation
- Evidence of highwall slumping
- Emergent wetlands on site
- Overall site conditions/on-the-ground results of each project, and
- Has long term reclamation been achieved

The file reviews determined that each project's goals and objectives were clearly stated. The majority of these goals and objectives involved the elimination of AML features that posed dangers to the public health and safety. The features to be reclaimed were clearly identified and quantified. The reclamation techniques were discussed in detail and all problems encountered during reclamation were noted. Each post-construction inspection and post-construction maintenance event was recorded. The majority of maintenance events included: installation and repair of erosion control devices, repair of drainage control devices, and repair of highwall backfill material due to slumping and/or cracking. All projects were stable and had met their goals and objectives at the time of their release.

The field reviews found that completed reclamation continues to meet project goals and objectives. All sites were stable and did not exhibit any slumping in backfill material at highwalls, portals, and vertical openings. No off-site sedimentation was noted at any of the projects. Wetlands have developed on six of the project sites. No significant erosion was noted, and impoundments that were established during reclamation remained stable. All sites were well vegetated.

At one site, placement of fill dirt by city workers after release of the project caused a drainage ditch wash out leaving a dangerous drop less than two feet from a busy highway. The excess dirt had rerouted the water flow causing the ditch to wash. Upon discovery, ADIR immediately repaired the wash by filling it with riprap. Because this problem was not caused by design or implementation failure, the project goals and objectives had been met at this site.

The study found that long-term reclamation success has been achieved on all projects evaluated. Regardless of their age, the projects remain stable and continue to meet their goals and objectives. All the AML features on the projects were reclaimed. ADIR operates an AML program that not only specializes in correcting health and safety problems, but in stabilizing the affected project areas after construction. ADIR's post-construction monitoring and maintenance program provides for early identification of any on-the-ground problems associated with the projects' reclamation. ADIR's AML program achieves long-term reclamation success.

Grant Reviews

During EY 2006, the MCR performed grant reviews in the areas of ADIR's property management practices, drawdown and disbursement of Federal funds requirements, and compliance with State payroll documentation requirements and procedures for the period October 1, 2005, through April 30, 2006.

A review of ADIR's property records and a visual verification of the property found that ADIR follows the procedural requirements of property management as described in the FAM and has adequate controls in place for the accountability and maintenance of property. The review of ADIR's drawdown and disbursement procedures determined that cash advancements were limited to the amounts needed, and the drawdown requests for Federal funds were limited to the incurred expenses and were timed to immediate needs. The payroll review to determine if ADIR was in compliance with the State payroll documentation and procedure requirements found that hourly time sheets were prepared and signed daily by the employees. The cost codes were recorded daily with hours worked. All time sheets reviewed were signed and approved by supervisors.

The studies determined that the State is in compliance with all requirements of FAM and other State and Federal laws and regulations for property management, cash drawdowns and disbursement of Federal funds, and payroll procedures.

C. Program Evaluations Carried Over into EY 2007 – State Regulatory Program

Blasting

In EY 2006, the BFO proposed the development of a joint ASMC/BFO/Industry team to collaboratively address blasting issues and the predominance of blasting as a source of citizen complaints. The goal of the team would be to cooperatively develop actions which ASMC, BFO, and Industry can take to proactively address blasting issues in an attempt to reduce the causes which precipitate blasting complaints. This assistance effort will begin on August 1, 2006, and will be completed in June 2007.

APPENDIX A

TABULAR SUMMARY OF CORE DATA TO CHARACTERIZE THE PROGRAMS

The following tables present data pertinent to mining operations and State and Federal regulatory and abandoned mine lands activities within Alabama. They also summarize funding provided by OSM and Alabama staffing. Unless otherwise specified, the reporting period for the data contained in all tables is the same as the evaluation year. Additional data used by OSM in its evaluation of Alabama's performance is available for review in the evaluation files maintained by the Birmingham Field Office.

TABLE 1

| COAL PRODUCTION (Millions of short tons) | | | |
|--|--------------------------|------------------------------|---------------|
| Period | Surface mines | Underground mines | Total |
| Coal production ^A for entire State: | | | |
| Annual Period | | | |
| 2003 | 4.694 | 15.548 | 20.242 |
| 2004 | 6.249 | 15.463 | 21.712 |
| 2005 | 8.361 | 14.359 | 22.720 |
| Total | 19.304 | 45.370 | 64.674 |

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 June 30, 2006 | | | | | | | | | | | | | |
| Coal mines and related facilities | Number and status of permits | | | | | | | | Insp. Units^D | Permitted acreage^A (hundreds of acres) | | | |
| | Active or temporarily inactive | | Inactive Phase II bond release | | Abandoned | | Totals | | | IP | PP | Total | |
| | IP | PP | IP | PP | IP | PP | IP | PP | | | | | |
| | | | | | | | | | | | | | |
| STATE AND PRIVATE LANDS REGULATORY AUTHORITY: STATE | | | | | | | | | | | | | |
| Surface mines | | 53 | | 76 | | 57 | 0 | 186 | 186 | | 707.5 | 707.5 | |
| Underground mines | | 10 | | 6 | | 2 | 0 | 18 | 18 | | 101.1 | 101.1 | |
| Other facilities | | 10 | | 2 | | 1 | 0 | 13 | 13 | | 29.8 | 29.8 | |
| Subtotals | 0 | 73 | 0 | 84 | 0 | 60 | 0 | 217 | 217 | 0 | 838.4 | 838.4 | |
| FEDERAL LANDS* REGULATORY AUTHORITY: STATE | | | | | | | | | | | | | |
| Surface mines | | 1 | | | | | 0 | 1 | 1 | | 0.4 | 0.4 | |
| Underground mines | | 3 | | | | | 0 | 3 | 3 | | 5.2 | 5.2 | |
| Other facilities | | 0 | | | | | 0 | 0 | 0 | | 0 | 0 | |
| Subtotals | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 5.6 | 5.6 | |
| ALL LANDS^B | | | | | | | | | | | | | |
| Surface mines | | 53 | | 76 | | 57 | 0 | 186 | 186 | | 707.9 | 707.9 | |
| Underground mines | | 10 | | 6 | | 2 | 0 | 18 | 18 | | 106.3 | 106.3 | |
| Other facilities | | 10 | | 2 | | 1 | 0 | 13 | 13 | | 29.8 | 29.8 | |
| Totals | 0 | 73 | 0 | 84 | 0 | 60 | 0 | 217 | 217 | 0 | 844 | 844 | |
| Average number of permits per inspectable unit (excluding exploration sites) | | | | | | | | | <u>1</u> | | | | |
| Average number of acres per inspectable unit (excluding exploration sites) | | | | | | | | | <u>389</u> | | | | |
| Number of exploration permits on State and private lands: | | | | | | | | | <u>0</u> | | On Federal lands ^C : | | <u>0</u> |
| Number of exploration notices on State and private lands: | | | | | | | | | <u>12</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. * Federal land units are included in State and Private Lands and are not separate permits | | | | | | | | | | | | | |

TABLE 3

**STATE PERMITTING ACTIVITY
As of June 30, 2006**

| 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 | 17 | 13 | 5,283 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 13 | 5,283 |
| Renewals | 10 | 7 | 2,252 | 3 | 1 | 940 | 0 | 0 | 0 | 13 | 8 | 3,192 |
| Transfers, sales and assignments of permit rights | 6 | 9 | | 3 | 1 | | 0 | 0 | | 9 | 10 | |
| Small operator assistance | 1 | 2 | | 0 | 0 | | 0 | 0 | | 1 | 2 | |
| Exploration permits | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Exploration notices ^B | | 29 | | | 0 | | | 0 | | | 29 | |
| Revisions (exclusive of incidental boundary revisions) | | 77 | | | 8 | | | 3 | | | 88 | |
| Incidental boundary revisions | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Totals | 34 | 137 | 7,535 | 6 | 10 | 940 | 0 | 3 | 0 | 40 | 150 | 8,475 |

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

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^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 | | | | | | | | | | | | | |
|---|----------------|---------------|----------|----------|-------------|----------|----------|--------------|----------|----------|-------------------|----------|----------|
| RESOURCES AFFECTED | | People | | | Land | | | Water | | | Structures | | |
| DEGREE OF IMPACT | | minor | moderate | major | minor | moderate | major | minor | moderate | major | minor | moderate | major |
| TYPE OF IMPACT AND TOTAL NUMBER OF EACH TYPE | Blasting | 4 | 2 | | 1 | | 1 | | | | | | |
| | Land Stability | 0 | | | | | | | | | | | |
| | Hydrology | 27 | | | 5 | | | 17 | 5 | | | | |
| | Encroachment | 9 | | | 7 | | 2 | | | | | | |
| | Other | 0 | | | | | | | | | | | |
| Total | 40 | 2 | 0 | 0 | 13 | 0 | 3 | 17 | 5 | 0 | 0 | 0 | 0 |
| Total number of inspectable units: | | | | | <u>178</u> | | | | | | | | |
| Inspectable units free of off-site impacts: | | | | | <u>154</u> | | | | | | | | |
| OFF-SITE IMPACTS ON BOND FORFEITURE SITES | | | | | | | | | | | | | |
| RESOURCES AFFECTED | | People | | | Land | | | Water | | | Structures | | |
| DEGREE OF IMPACT | | minor | moderate | major | minor | moderate | major | minor | moderate | major | minor | moderate | major |
| TYPE OF IMPACT AND TOTAL NUMBER OF EACH TYPE | Blasting | | | | | | | | | | | | |
| | Land Stability | | | | | | | | | | | | |
| | Hydrology | | | | | | | | | | | | |
| | Encroachment | | | | | | | | | | | | |
| | Other | | | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total number of inspectable units: | | | | | <u>39*</u> | | | | | | | | |
| Inspectable units free of off-site impacts: | | | | | <u>39</u> | | | | | | | | |

* This number includes two sites where surety reclamation is also occurring on some increments of the permits. All other surety reclamation sites are shown in the top of Table 4.

TABLE 5

| ANNUAL STATE MINING AND RECLAMATION RESULTS | | |
|--|---|---|
| Bond release phase | Applicable performance standard | Acreage released during this evaluation period |
| Phase I | - Approximate original contour restored - Topsoil or approved alternative replaced | 2,064.00 |
| Phase II | - Surface stability - Establishment of vegetation | 1,369.00 |
| Phase III | - Post-mining land use/productivity restored - Successful permanent vegetation - Groundwater recharge, quality and quantity restored - Surface water quality and quantity restored | 2,406.00 |
| | Bonded Acreage Status^A | Acres |
| Total number of acres bonded at end of last review period (June 30, 2005) ^B | | 44,813.00 |
| Total number of acres bonded during this evaluation year | | 5,435.00 |
| Number of acres bonded during this evaluation year that are considered remining, if available | | Not Available |
| Number of acres where bond was forfeited during this evaluation year (also report this acreage on Table 7) | | 637.00 |

^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).

Table 6
Alabama Abandoned Mine Lands
Problem Type Unit and Cost Summary

| Problem Type | Meas. | Unfunded | | Funded | | Completed | | Total | |
|-----------------------------------|-----------|----------|--------------------|--------|------------------|-----------|-------------------|---------|--------------------|
| | | Units | Costs | Units | Costs | Units | Costs | Units | Costs |
| Bench | (Acres) | 0 | 0 | 0 | 0 | 22.5 | 4009 | 22.5 | 4009 |
| Clogged Streams | (Miles) | 0.6 | 504000 | 0 | 0 | 5.6 | 6 | 6.2 | 504006 |
| Clogged Stream Lands | (Acres) | 123.3 | 131400 | 0 | 0 | 197.5 | 610547 | 320.8 | 741947 |
| Dangerous Highwalls | (Feet) | 341390 | 39612035 | 31800 | 3946968 | 376548 | 28237727 | 749738 | 71796730 |
| Dangerous Impoundments | (Count) | 0 | 0 | 0 | 0 | 6 | 52149 | 6 | 52149 |
| Ind/Res Waste | (Acres) | 71.1 | 52443 | 1.3 | 2 | 21.6 | 11883 | 94 | 64328 |
| Dangerous Piles & Embankment | (Acres) | 2002.8 | 2636693 | 43 | 295600 | 2235 | 2871202 | 4280.8 | 5803495 |
| Dangerous Slides | (Acres) | 20 | 108500 | 0.5 | 75000 | 53.6 | 1444681 | 74.1 | 1628181 |
| Equip/Facil. | (Count) | 154.2 | 315003 | 0 | 0 | 20 | 49857 | 174.2 | 364860 |
| Gases: Hazardous/Explosive | (Count) | 0 | 0 | 0 | 0 | 0 | 109797 | 0 | 109797 |
| Gobs | (Acres) | 398.4 | 2370249 | 51 | 150000 | 497.1 | 1041479 | 946.5 | 3561728 |
| Highwall | (Feet) | 1723855 | 279106684 | 0 | 0 | 79495 | 1529080 | 1803350 | 280635764 |
| Hazardous Equipment & Facilities | (Count) | 412.1 | 388000 | 17 | 90000 | 485 | 224824 | 914.1 | 702824 |
| HaulRoad | (Acres) | 3 | 1 | 0 | 0 | 3.5 | 3 | 6.5 | 4 |
| Hazardous Water Body | (Count) | 70 | 815352 | 14 | 66000 | 107.5 | 724068 | 191.5 | 1605420 |
| Industrial/Residential Waste | (Acres) | 52.4 | 204685 | 0.1 | 5000 | 32.9 | 43185 | 85.4 | 252870 |
| Mine Opening | (Count) | 201 | 651100 | 0 | 0 | 82 | 38790 | 283 | 689890 |
| Other | () | 68.8 | 227655 | 2 | 1 | 75 | 46798 | 145.8 | 274454 |
| Portals | (Count) | 199 | 521600 | 101 | 226002 | 1118 | 1758002 | 1418 | 2505604 |
| Pits | (Acres) | 22 | 21002 | 1.5 | 0 | 4 | 10959 | 27.5 | 31961 |
| Polluted Water: Agri. & Indus | (Count) | 2 | 2890000 | 4 | 372120 | 8.9 | 1719429 | 14.9 | 4981549 |
| Polluted Water: Human Consumption | (Count) | 1 | 2202613 | 0 | 0 | 17 | 1262970 | 18 | 3465583 |
| Subsidence | (Acres) | 3.5 | 32575 | 0 | 0 | 42.2 | 8979556 | 45.7 | 9012131 |
| Spoil Area | (Acres) | 39260.5 | 72737846 | 59 | 43702 | 14983.6 | 10698812 | 54303.1 | 83480360 |
| Surface Burning | (Acres) | 62.5 | 445125 | 2 | 40000 | 72.6 | 1787891 | 137.1 | 2273016 |
| Slurry | (Acres) | 8.3 | 61048 | 5 | 65000 | 40.6 | 253120 | 53.9 | 379168 |
| Slump | (Acres) | 6.3 | 36001 | 0 | 0 | 9.6 | 65621 | 15.9 | 101622 |
| Vertical Opening | (Count) | 27 | 141176 | 5 | 14500 | 434.1 | 802305 | 466.1 | 957981 |
| Water Problems | (Gal/Min) | 363.5 | 438800 | 0 | 0 | 430 | 34100 | 793.5 | 472900 |
| Report Total | | | 406,651,586 | | 5,389,895 | | 64,412,850 | | 476,454,331 |

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 June 30, 2005 (end of previous evaluation year) ^A | 39 * | 4,311.00 |
| Sites with bonds forfeited and collected during Evaluation Year 2006 (current year) | 5 | 627.00 |
| Sites with bonds forfeited and collected that were re-permitted during Evaluation Year 2006 (current year) | 0 | 0.00 |
| Sites with bonds forfeited and collected that were reclaimed during Evaluation Year 2006 (current year) | 5 | 589.90 |
| Sites with bonds forfeited and collected that were unreclaimed as of June 30, 2006 (end of current year) ^A | 39 | 3,342.00 |
| Sites with bonds forfeited but uncollected as of June 30, 2006 (end of current year) | 0 | 0.00 |
| Surety/Other Reclamation (In Lieu of Forfeiture) | | |
| Sites being reclaimed by surety/other party as of June 30, 2005 (end of previous evaluation year) ^B | 27 | 4,049.00 |
| Sites where surety/other party agreed to do reclamation during Evaluation Year 2006 (current year) | 0 | 0.00 |
| Sites being reclaimed by surety/other party that were re-permitted during Evaluation Year 2006 (current year) | 0 | 0.00 |
| Sites with reclamation completed by surety/other party during Evaluation Year 2006 (current year) ^C | 7 ** | 479.00 |
| Sites being reclaimed by surety/other party as of June 30, 2006 (current evaluation year) ^B | 20 | 3,570.00 |
| <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>* A six acre site was removed from the forfeited listing.</p> <p>** Includes 4 reclaimed sites and 3 surety sites now bond forfeited.</p> | | |

TABLE 8

| STATE STAFFING (Full-time equivalents at the end of evaluation year) | |
|--|----------------|
| Function | EY 2006 |
| Regulatory Program | |
| Permit review | 9.50 |
| Inspection | 12.50 |
| Other (administrative, fiscal, personnel, etc.) | 5.00 |
| Regulatory Program Total | 27.00 |
| AML Program Total | 17.55 |
| TOTAL | 44.55 |

TABLE 9

| FUNDS GRANTED TO ALABAMA BY OSM (Millions of dollars) EY 2006 | | |
|---|--------------------------------------|---|
| Type of Grant | Federal Funds Awarded | Federal Funding as a Percentage of Total Program Costs |
| Administration and Enforcement | \$0.96 | 51 |
| Small Operator Assistance | \$0.00 | 0 |
| | | |
| Totals | \$0.96 | |

TABLE 10

| STATE INSPECTION ACTIVITY | | |
|---|--|----------------|
| PERIOD: JULY 1, 2005 - JUNE 30, 2006 | | |
| Inspectable Unit Status | Number of Inspections Conducted | |
| | Complete | Partial |
| Active* | 978 | 308 |
| Inactive* | 904 | 191 |
| Abandoned* | 258 | 40 |
| Total | 2,140 | 539 |
| Exploration | 242 | 13 |

* Use terms as defined by the approved State program.

TABLE 11

| STATE ENFORCEMENT ACTIVITY | | |
|---|-------------------------------|----------------------------------|
| PERIOD: JULY 1, 2005 - JUNE 30, 2006 | | |
| Type of Enforcement Action | Number of Actions* | Number of Violations* |
| Notice of Violation | 123 | 155 |
| Failure-to-Abate Cessation Order | 10 | 16 |
| Imminent Harm Cessation Order | 0 | 0 |

* Do not include those violations that were vacated.

TABLE 12

| LANDS UNSUITABLE ACTIVITY PERIOD: JULY 1, 2005 - JUNE 30, 2006 | | | |
|---|---|---|---|
| Number of Petitions Received | 1 | | |
| Number of Petitions Accepted | 0 | | |
| Number of Petitions Rejected | 1 | | |
| 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 |

APPENDIX B

STATE COMMENTS ON THE REPORT