

OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

Annual Evaluation Summary Report

for the

Regulatory Program

Administered by the State

of

MISSISSIPPI

for

Evaluation Year 2007

July 1, 2006 to June 30, 2007

July 2007

EXECUTIVE SUMMARY

During the 2007 Evaluation Year (EY), the Office of Surface Mining Reclamation and Enforcement (OSM), Birmingham Field Office (BFO), conducted oversight evaluations of the Mississippi Department of Environmental Quality (MDEQ), Office of Geology, the State coal mine regulatory authority. The oversight studies focused on the success of Mississippi in meeting the Surface Mining Control and Reclamation Act's (SMCRA) goals for environmental protection of land mined for coal. An evaluation plan was cooperatively developed by the BFO and the State to tailor the oversight activities to the unique conditions of the state program. Through oversight activities, the need for financial, technical, and other program assistance to the State is identified and provided to strengthen its program.

In support of OSM's national initiatives, the BFO conducted studies in the areas of off-site impacts and customer service. OSM's national initiative on reclamation success was not reviewed because Mississippi has not processed any bond release actions since its first mining permit was issued on August 25, 1998.

- The off-site impacts study demonstrated no off-site impacts had occurred on the Red Hills Lignite Mine during the review period. No off-site impacts have been identified on the coal mining permit since mining commenced in 1998.
- To evaluate the effectiveness of Mississippi's customer service, the BFO evaluated the Office of Geology's public participation process required as part of the permit modification procedures. The modification that involved the beneficial use of coal combustion by-products (CCBs) was the first modification processed by the program. The modification was approved on January 24, 2007. The Office of Geology met the majority of regulatory guideline requirements for public participation for the approval of a modification. Since the company did not file an identifiable copy of the modification in the Chancery Court as required by the State's regulations, discussions were held between the BFO and the Office of Geology. The State agreed that in the future, all modifications would be set aside as a distinct document for public viewing. In addition, they have agreed to require proof of publication from the coal company for all public notices.

OSM conducted assistance activities as follows:

- The Mid-Continent Regional Office (MCR) provided technical assistance on hydrology and soil issues relating to the modification to the permit for the beneficial use of CCBs on the mine site and the mid-term permit review.
- As requested by MDEQ, an in-state interactive session on OSM's direction for rulemaking for CCB placement at mine sites was conducted by MCR.
- The MCR and BFO provided assistance to the Office of Geology for the submittal of their Abandoned Mine Land Reclamation Plan.

TABLE OF CONTENTS

Executive Summary	i
Table of Contents	ii
List of Acronyms Used in Report	iii
I. Introduction.....	1
II. Overview of Coal Mining Industry.....	1
III. Overview of Public Participation in the Program.....	2
IV. Major Accomplishments/Issues/Innovations	2
V. Success in Achieving the Purposes of SMCRA	3
A. Off-site Impacts	3
B. Reclamation Success.....	4
C. Customer Service	4
VI. OSM Assistance.....	6
VII. General Oversight Topic Reviews	8
Appendix A: Tabular Summary of Core Data to Characterize the Program	
Appendix B: State Comments on the Report and Responses to Comments	

LIST OF ACRONYMS USED IN THE REPORT

AML – Abandoned Mine Land
BFO - Birmingham Field Office
CCBs - Coal Combustion By-Products
CHIA - Cumulative Hydrologic Impact Assessment
EY - Evaluation Year
MCR – Mid-Continent Regional Office
MDEQ - Mississippi Department of Environmental Quality
MLMC - Mississippi Lignite Mining Company
OSM - Office of Surface Mining Reclamation and Enforcement
PHC - Probable Hydrologic Consequences
RHGF - Red Hills Generating Facility
RHPP - Red Hills Power Project
SMCRA - Surface Mining Control and Reclamation Act

I. INTRODUCTION

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining Reclamation and Enforcement (OSM) in the Department of the Interior. SMCRA provides authority to OSM to oversee the implementation of and provide Federal funding for State regulatory programs that have been approved by OSM as meeting the minimum standards specified by SMCRA. This report contains summary information regarding the Mississippi Regulatory Program and the effectiveness of the Mississippi Program in meeting the applicable purposes of SMCRA as specified in section 102. The Mississippi Department of Environmental Quality (MDEQ), Office of Geology, administers the program. This report covers the period of July 1, 2006, to June 30, 2007. 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 MISSISSIPPI COAL MINING INDUSTRY

The State of Mississippi was one of the first States to be awarded primacy to regulate coal mining within its borders after passage of SMCRA in August 1977. For a number of years after primacy was awarded, no serious interest surfaced for mining the lignite deposits found in Mississippi. Exploratory drilling throughout the Mississippi lignite fields began in the mid-1970's and culminated in the issuance of a permit to mine lignite in Choctaw County in August 1998.

Coal is present in Mississippi in the form of lignite, a brownish black coal that is intermediate between peat and bituminous coal. The lignite found in Mississippi is part of a band of lignite that extends from south Texas through Louisiana, Arkansas, Tennessee, Mississippi, and into central Alabama. Essentially all of the economically significant lignite in Mississippi is found in the Eocene Wilcox and Claiborne groups, which come into the State just east of Memphis, Tennessee, and proceed through the State in a shallow eastern-progressing curve, exiting into Alabama approximately midway down the State. Typically, lignite beds or seams that can be mined for economic purposes range from two to nine feet in thickness. The 1978 estimates of the total lignite resources for the State in lignite beds two feet thick or greater and less than 200 feet in depth were 5 billion tons. Mississippi lignite resources equal about 13 percent of the total U.S. lignite resources of 40 billion tons. For the foreseeable future, lignite will primarily be used for the generation of electricity.

The Red Hills Power Project (RHPP) in Choctaw County developed as a result of an initiative by the Tennessee Valley Authority to explore options for additional power generation. The generation facility, with a net output of 440 megawatts of electricity, was estimated to consume about 3 million tons per year of lignite from the Mississippi Lignite Mining Company (MLMC), Red Hills Lignite Mine. The lignite mine is located between the generation facility and the Natchez Trace Parkway near the town of Ackerman, Mississippi. It is projected that over the 30-year life of the 5,809-acre mine,

about 4,700 acres will be disturbed; 1,400 acres by mine development activities and 3,300 by lignite removal operations. The remaining 1,109 acres will be used for buffer zones.

Mine development began in September 1998 with construction of access roads, mine support facilities, a lignite handling facility, temporary stream diversions, a stormwater runoff control pond, and sedimentation control ponds. Overburden removal began in 1999 with actual lignite mining beginning in 2000.

The power plant became fully operational on February 28, 2002. The mine plans to supply the RHPP with approximately 3.3 to 3.6 million tons of lignite per year through 2030. RHPP produced 3.621 million tons of coal during EY 2007 (See Table 1). When OSM's Directive REG-8, Oversight of State Programs, was revised in December 2006, the reporting period for coal production on Table 1 was changed from a calendar year basis to an evaluation year basis. The change was effective for the 2007 evaluation year. In addition to coal production figures for the current year, Table 1 also contains the coal production figures from annual evaluation reports for the two most recent prior years. Therefore, for the 2007 annual evaluation report, coal production figures are provided for 2005, 2006 and 2007. In order to ensure that coal production for these three years are directly comparable, the calendar year production figures from the 2005 and 2006 annual evaluation reports were recalculated on an evaluation year basis (July 1 – June 30). This should be noted when attempting to compare coal production figures from annual evaluation reports originating both before and after the December 2006 revision to the reporting period.

Of the 5,809 acres permitted, 3,625 acres are bonded. As of June 30, 2007, 2,175.4 acres of the Red Hills Lignite Mine had been disturbed. Lignite is being mined from six seams.

Mississippi has a small inventory of abandoned lignite mines. Nine sites have been identified in five counties. All of the sites for which acreage was available were listed as less than one acre in size. Three of the sites involved the underground mining of lignite. The lignite was typically used for blacksmithing and home heating.

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

Opportunities for public participation occur at various points throughout the Mississippi regulatory program. They include the ability of the public:

- To request that areas be designated as unsuitable for mining;
- Notification by advertisement of receipt of permit application;
- To review permit and modification applications;
- To request a formal hearing concerning actions of the Mississippi Environmental Quality Permit Board;
- To request an inspection of a mine site;

- To object to proposed bond releases;
- To initiate citizen suits; and
- To petition to initiate rulemaking.

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

Expected growth in coal mining activities in Mississippi led to the creation of the Coal Mining Division within the Office of Geology. The new Coal Mining Division has assumed the coal mining responsibilities previously handled within the Mining and Reclamation Division of the Office of Geology. That division has overseen all mining activities in the State including clay, sand, gravel, and other minerals in addition to coal. Therefore, with anticipated growth of coal mining in the State, a specialized branch has been created during EY 2007. In addition to the Red Hills Lignite Mine, there is strong interest in other mining locations within the State.

Accomplishments:

Inspections were conducted as required, and conditions on the mine site were documented. No violations of the Mississippi surface mining law or regulations were cited during the year.

Also, during the EY, the Office of Geology approved six revisions and Modification 1, a significant revision to MS-002, which addressed beneficial use of coal combustion by-products (CCBs) in road building and other construction projects on the mine site. The renewal of MS-002 was received by the State during the EY; the review process has begun and is over one-half completed. The Office of Geology is monitoring a study of the bottom land horizon/deep lift soils. The soil plots were constructed in June 2007 on MS-002.

In addition, the Office of Geology processed a Notice of Intent / exploration notice. Exploration operations were conducted in Kemper County on behalf of the Mississippi Power Company.

The Office of Geology wrote and formally submitted their Abandoned Mine Land (AML) Reclamation Plan to OSM for approval.

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 standards and public participation evaluations are collected for a national perspective. For the majority of primacy States, these findings include descriptions of the number and extent of observed off-site impacts; the number of acres that have been mined, reclaimed and meet the bond release requirements for the various phases of reclamation; and the effectiveness of customer service provided by the State. Since there have been no

requests for bond release by the MLMC, only the evaluations of off-site impacts and customer service apply. 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 State regulatory programs in protecting the environment and the public from off-site impacts resulting from surface coal mining and reclamation operations. Data are 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 causes a negative effect on resources (people, land, water, structures). The impact must also be regulated or controlled by the State regulatory program. The impact must be mining related and must occur outside the area authorized by the permit for conducting mining and reclamation activities.

The BFO conducted one joint inspection of the mine site during EY 2007. No off-site impacts were identified during this inspection. No off-site impacts were noted during any of the 14 inspections conducted by the Office of Geology. No enforcement actions were issued by the Office of Geology during the evaluation period. The mine site was free of off-site impacts.

B. Reclamation Success:

The company has not submitted any bond release requests since the initiation of mining. Therefore, no bond release actions were processed during the review period.

C. Customer Service:

The Office of Geology began processing its first permit modification during EY 2006. Under Mississippi's regulations, a permit modification requires public participation. The modification involved the beneficial use of CCBs at the Red Hills Mine to stabilize haul routes, dragline benches, and haul-back areas. Due to the complex issues associated with the use and disposal of CCBs on the mine site, the State determined the permit revision met the modification criteria.

Directive REG-8 requires the OSM to evaluate the effectiveness of customer service each evaluation year. The BFO selected the area of the public participation in the permitting process. The review focused on Mississippi's public participation / agency consultation procedures. The evaluation was conducted on the first modification approved by the Office of Geology. All permit applications, renewals, and modifications require public participation.

Under Mississippi's regulations, a permit modification requires public participation. The

modification involves the beneficial use of CCBs at the Red Hills Mine to stabilize haul routes, dragline benches, and haul-back areas. Due to the complex issues associated with the use of CCBs on the mine site, the State determined that the permit revision met modification standards. The Office of Geology initiated the public comment / public participation process on Modification 1 when it determined the modification submittal was complete.

The major steps in the public comment / participation process include:

- A copy of the application for the modification is filed by the company at the county Chancery Court in the county where the mining is occurring.
- Separate public notices of the modification application are placed in a local newspaper and a regional newspaper by the company and the State for four consecutive weeks. The notices must also meet additional regulatory requirements.
- The Office of Geology will provide written notification to all entities specified in their regulations and policies.
- Written objections from the public and other interested parties must be provided to the Permit Board within 30 days after the last publication of the required newspaper notice.
- A public hearing must be requested within 45 days after the last publication of the required newspaper notice. A public hearing will be held in Ackerman, Mississippi, if requested.
- Any comments received as a result of the public newspaper notices, the written notifications, and the public hearing, if held, will be addressed by the Office of Geology.
- Modifications will be available for examination and copying at the Office of Geology in Jackson.

On February 28, 2007, the BFO visited the Chancery Court at the Choctaw County Courthouse in Ackerman to verify the modification had been placed there. On April 24, 2007, permit MS-002 was reviewed at the State office to obtain all public participation documents related to the application for Modification 1.

No separate document for Modification 1 was located at the Chancery Court. Modification 1 was included in the company's binder for Revision 8 but was not notated as "Modification 1". Therefore, no references to the modification were located in Revision 8 making it impossible for the general public to review Modification 1 at the courthouse.

The modification advertisement was published in two local newspapers and the regional newspaper *The Jackson Clarion Ledger*. In addition, the company also published a notice in the adjacent county's local newspaper. All information required by the regulations for the newspaper notices was included except the name of the United States Geological Survey 7.5-minute quadrangle map. The company's newspaper notices were

not available at the State office nor had the company provided the State with proof of publication of these notices.

The Mississippi Lignite Mining Company provided written notices to the individual landowners whose land is located within the five year permitted area addressing the use of CCBs on the mine site. These notices were provided to the landowners prior to the initiation of the public comment process. Only one comment was received; the landowner stated that he agreed with the use of CCBs on the mine. This comment was considered by the Office of Geology.

The Office of Geology provided written notification to all entities specified in their regulations and policies. Notices were sent to all required parties on June 14, 2006.

The modification was available for examination and copying at the Office of Geology in Jackson, Mississippi. No comments on the application for Modification 1 were received by the State. In addition, no requests for a public hearing were received by the Office of Geology.

The following recommendations were offered by the BFO:

- All modifications must be filed at the Chancery Court and identified as such in its own binders for ease of public viewing.
- The Office of Geology must verify that all documents required to be housed at the Chancery Court for public viewing are there.
- The State must obtain proof of publication from the company of any public notices required by their regulations.

These recommendations were discussed with the State during an exit interview on April 24, 2007. The State agreed that in the future all modifications would be set aside as a distinct document for public viewing. The Office of Geology also agreed that they would verify all documents required to be filed at the Chancery Court were there. The State would perform these checks as part of their regular inspection process. The State agreed to require proof of publication from the coal company for all public notices.

VI. OSM ASSISTANCE

The focus of OSM's oversight role is on-the-ground reclamation success and end results rather than on processes. OSM's role emphasizes assisting the State in improving its regulatory program by identifying program needs and offering financial, technical, and programmatic assistance as necessary to strengthen the State program. The BFO routinely provided information to Mississippi regarding new policy guidelines and procedures, as well as changes in existing guidelines and procedures. The following assistance activities were conducted during EY 2007:

Soils Revision, Test Plots, and Coal Combustion By-products

MCR provided technical assistance to Mississippi on various soils issues. MCR received a request from the Office of Geology on April 29, 2005, to conduct a review of the Revision 7 application for the Red Hills Mine. This review included a proposed topsoil substitution plan, changes to the topsoil handling and reclamation plans, and the beneficial use of CCBs. In February 2006, MCR completed their review and furnished their findings and deficiencies to the State. The information furnished by MCR was used to develop a deficiency letter for the mine operator. The permittee submitted information to address the identified deficiencies. MCR reviewed the new material on June 12, 2006, and provided deficiency comments to the Office of Geology on August 23, 2006. Revision 7 was approved as part of Revision 8 and Modification 1 (see “Customer Service” above) on January 24, 2007.

Mississippi CCB Workshop

Mississippi requested the MCR provide an in-state interactive session on OSM’s direction for rulemaking of CCB placement at mine sites. The meeting was conducted at the training facilities of the MLMC at the Red Hills mine on March 1 and 2, 2007. Materials were provided to the participants that included a paper on the history of CCB placement at mines in the United States, a status report on OSM rulemaking related to CCB placement, the OSM guidance document for permitting CCB placement where OSM is the regulatory authority in the Western U.S., and a side-by-side comparison of the SMCRA regulatory program covering CCB placement with the Resource Conservation and Recovery Act regulatory program for CCB disposal. Twenty people attended the event. Attendees included local and out of state MLMC personnel; MDEQ personnel from the Office of Geology, Land and Water Resources, and Office of Pollution Control; power plant representatives; BFO personnel; and the soil scientist contracted by the Office of Geology.

As a result of the meeting, MDEQ plans to use SMCRA to regulate CCB placement at the mine site. OSM achieved its goals of providing the State with information that allowed them to make informed decisions in its permitting and regulatory process for CCBs use on the mine site.

Mississippi Hydrology Mid-term Review

MCR provided technical assistance to Mississippi on hydrology issues. MCR received a request from the State on April 29, 2005, to conduct a review of permit hydrology issues at the Red Hills Mine. This review covered surface and ground water hydrology data, CCB disposal, Probable Hydrologic Consequences (PHC), Cumulative Hydrologic Impact Assessment (CHIA), and other hydrology related information. A site visit was conducted on June 27 through 29, 2005. On February 2, 2006, the hydrology technical assistance report that dealt with Permit MS-002, Revision 7, was provided to the State. As a result of the review, the permittee submitted additional information addressing the identified deficiencies. MCR received these new materials on June 12, 2006, and no additional deficiencies were identified. Revision 7 was approved as part of Revision 8

and Modification 1 (discussed under “Customer Service” above) on January 24, 2007. The MCR will continue to provide general PHC/CHIA technical assistance as needed / requested.

Abandoned Mine Land Reclamation Plan

During EY 2007, Mississippi submitted its AML Reclamation Plan to OSM for processing. The MCR and BFO informally reviewed the submittal and advised the State of necessary changes. After incorporating the changes, the Office of Geology formally submitted the Plan for review and processing. Presently, the submittal is in OSM’s formal rule making process. The goal is to have the AML Reclamation Plan approved prior to October 1, 2007.

VII. GENERAL OVERSIGHT TOPIC REVIEWS

Contemporaneous Reclamation

In EY 2007, the BFO proposed a co-review of the reclamation activities at the Red Hills Mine, and data was gathered during the evaluation year. Due to the approval of a permit revision near the end of EY 2007, OSM was unable to complete its review. This topic will be carried over into EY 2008.

APPENDIX A

TABULAR SUMMARY OF CORE DATA TO CHARACTERIZE THE PROGRAM

The following tables present data pertinent to mining operations and State regulatory activities within Mississippi. They also summarize funding provided by OSM and Mississippi 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 Mississippi's performance is available for review in the evaluation files maintained by the Birmingham OSM Office.

APPENDIX B

STATE COMMENTS ON THE REPORT AND RESPONSES TO COMMENTS

