**Office of Surface Mining**

Nineteenth Annual Evaluation Summary Report

for the

Regulatory and Abandoned Mine Land Reclamation Programs

Administered by the Commonwealth

of

**Kentucky**

for

Evaluation Year 2001

(October 1, 2000, to September 30, 2001)

TABLE OF CONTENTS

## I. Introduction

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining (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 approved Kentucky regulatory program and the effectiveness of the program in meeting the applicable purposes of SMCRA as specified in Section 102. This report covers the period of October 1, 2000, to September 30, 2001. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at the OSM Lexington Field Office (LFO).

This report follows the same format as in the past five years. The reporting format is a result of changes to OSM oversight policies implemented during 1996. Previously, OSM oversight procedures were very specific. The revised OSM Directive REG-8 oversight process enables OSM and states to take innovative, results-oriented evaluation approaches tailored to individual state programs and stakeholder interests and needs. During the Evaluation Year (EY), OSM and the states develop state-specific oversight plans or performance agreements to identify specific program areas and evaluation methodologies directed toward end-results measurement.

The oversight process provides two national measurements of end results--the number and degree of off-site impacts resulting from mining and the number of acres meeting all reclamation requirements as documented by different phases of bond release. The revised process allows OSM to focus oversight on those aspects of the state program that both OSM and the state determine to be most important. This oversight report, in response to the Government Performance and Results Act, corresponds to the federal Fiscal Year (FY).

The following list of acronyms is used in this report:

| | |
|---|---|
| A&E | Administration and Enforcement |
| ACSI | Appalachian Clean Streams Initiative |
| AMD | Acid Mine Drainage |
| AML | Abandoned Mine Land |
| AMLR | Abandoned Mine Land Reclamation |
| AMLIS | Abandoned Mine Land Inventory System |

| | |
|---|---|
| AOC | Approximate Original Contour |
| ARCC | Appalachian Regional Coordinating Center |
| CO | Cessation Order |
| COE | Corps of Engineers |
| CWA | Clean Water Act |
| DAML | Division of Abandoned Mine Lands |
| DSMRE | Department for Surface Mining Reclamation and Enforcement |
| EIS | Environmental Impact Statement |
| EPA | Environmental Protection Agency |
| EY | Evaluation Year |
| FOD | Field Office Director |
| FY | Fiscal Year |
| GPS | Geotechnical Positioning System |
| HB | House Bill |
| KAR | Kentucky Administrative Regulation |
| LFO | Lexington Field Office |
| MCCC | Martin County Coal Corporation |
| MSHA | Mine Safety and Health Administration |
| NC | Non-Compliance |
| NEPA | National Environmental Policy Act |
| NREPC | Natural Resources and Environmental Protection Cabinet |
| NWP | Nationwide Permit |
| OLS | Office of Legal Services |
| OSM | Office of Surface Mining |
| ROE | Right-of-Entry |
| SMCRA | Surface Mining Control and Reclamation Act of 1977 |
| SOAP | Small Operator Assistance Program |
| TDN | Ten-Day Notice |

## II. Overview of the Kentucky Coal Mining Industry

The Regulatory Authority responsible for the regulation of coal mining on Federal and non-federal lands in Kentucky is the Department for Surface Mining Reclamation and Enforcement (DSMRE) headed by Commissioner Carl Campbell. Allen Luttrell is DSMRE's Deputy Commissioner. The three divisions and chiefs in DSMRE are as follows: the Division of Field Services, Mark Thompson, Director; the Division of Permits, Larry Adams, Director; and the Division of Abandoned Mine Lands (DAML), Steve Hohmann, Director. DSMRE has five regional offices located in Madisonville, Middlesboro, Prestonsburg, Pikeville, and London.

The FY 2001 Administration and Enforcement (A&E) Grant was in the amount of $12,663,898.76 (federal funds) and supports 354.49 positions. OSM funds 82 positions in DAML with a grant of $18,894,469 for FY 2001. The Small Operator Assistance Program (SOAP) was awarded grant funds of $1,031,677 for FY 2001.

There are four major coal associations in Kentucky. They are the Kentucky Coal Association, the Western Kentucky Coal Association, the Coal Operators and Associates, Inc., and the Small Coal Operators Advisory Council.

Kentucky has two citizen organizations that are very active in coal mining issues. They are Kentuckians for the Commonwealth, Lamar Keys, Chairperson; and the Kentucky Resources Council, Inc., Thomas FitzGerald, Director.

Kentucky is the third largest coal-producing state in the nation, with an annual production averaging over 160 million short tons during the 1990's. Kentucky was the nation's leading coal producer until 1988, holding that position for over a decade until the production from Wyoming and West Virginia exceeded that in Kentucky.

Nearly every type of coal mining and reclamation practice is found due to the differing coal bearing regions within the state and the availability of coal. Kentucky's coal reserve base, the fifth largest in the nation, consists entirely of bituminous coal. Two major coal provinces in Kentucky are separated by a large geologic uplift called the "Cincinnati Arch." The Eastern Kentucky Coalfield is part of the Appalachian Coal Province where underground, contour, and mountaintop mining occurs. The Western Kentucky Coalfield is part of the Interior Coal Province (Illinois Coal Basin) where area and underground mining occurs. The Jackson Purchase Lignite Coalfield underlies the eight most western counties in Kentucky. This potential resource has not been assessed, and no current lignite mining is occurring.

Since 1979, coal produced from underground mines has steadily increased over coal produced from surface mines.

Underground mines account for approximately three-quarters of the acreage permitted in the state. The high percentage of acreage is due to the state requirement that the shadow area overlying the underground work must be permitted and bonded. However, most underground mines actually disturbed very

little surface acreage of the total disturbed acreage from coal mining in Kentucky (251,363 acres). Only 29,233 acres (or approximately ten percent) are attributed to underground mines. A review of underground mines in Kentucky indicates there was an overall increase in size during the last four EY's as follows:

| **Underground Mines Permitted Acreage** | **EY 1998** | **EY 1999** | **EY 2000** | **EY 2001** |
|---|---|---|---|---|
| Less than 20 acres | 2% | 2% | 2% | 1% |
| 20-99 acres | 10% | 8% | 7% | 6% |
| 100 acres or more | 88% | 90% | 91% | 93% |
| **Underground Mine Surface Disturbance Acreage** | **EY 1998** | **EY 1999** | **EY 2000** | **EY 2001** |
| Less than 20 acres | 74% | 72% | 71% | 70% |
| 20-99 acres | 21% | 22% | 23% | 24% |
| 100 acres or more | 5% | 6% | 6% | 6% |

Surface mines and associated facilities (haul roads and preparation plants, etc.) account for approximately one-quarter of the acreage permitted in the state. A review of the permitted acreage for surface mines and associated facilities indicates a steady increase in size.

| **Permitted Acreage** | **EY 1998** | **EY 1999** | **EY 2000** | **EY 2001** |
|---|---|---|---|---|
| Less than 20 acres | 16% | 14% | 14% | 13% |
| 20-99 acres | 28% | 26% | 25% | 24% |
| 100 acres or more | 56% | 60% | 61% | 63% |

The number of surface mines that are greater than 100 acres has increased significantly over the last ten OSM annual reports in Kentucky. OSM's ninth annual report stated that 37 percent of the surface mines were larger than 100 acres.

The fourteenth annual report reported 51 percent of the surface mines were larger than 100 acres. As of September 30, 2001, the data shows that 63 percent of the surface mines were larger than 100 acres. The following table further categorizes by size the number of surface mines.

| Permitted Acreage | Number of Surface Mines | Percent of Total Surface Mines |
|---|---|---|
| 100-250 | 255 | 19 |
| 250-500 | 262 | 20 |
| 500-1,000 | 199 | 15 |
| >1,000 | 118 | 9 |

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

A team of LFO and DSMRE personnel was formed to develop oversight procedures and special studies for EY 2001. The EY 2001 Oversight Performance Agreement was finalized and signed by DSMRE on December 14, 2000.

During the EY, comments were received from the environmental community requesting additional oversight of blasting and slurry impoundment issues. OSM conducted reviews dealing with both issues during the EY.

When SMCRA was enacted, it created many avenues for citizens' involvement. Thus, individual citizens have a statutory role in practically every phase of the surface mining program, from permit issuance to bond release and everything in between. Since SMCRA was enacted in 1977, coalfield citizens have used those rights to help shape virtually all of the policies and programs that govern surface coal mining and reclamation in America.

IV. Major Accomplishments/Issues/Innovations in the Kentucky Program

DSMRE is maintaining an effective regulatory program for permitting, inspection, and enforcement of surface coal mining and reclamation operations.

The major accomplishments/innovations for the EY are as follows:

A. Regulatory

On April 27, 2001, James E. Bickford, Secretary of the Natural Resources and Environmental Protection Cabinet (NREPC), signed an order declaring 2,364 acres of land on Pine Mountain as lands unsuitable to coal mining. The area is near the Pine Mountain Settlement School in Harlan County, Kentucky. The school was designated a National Historic Landmark. The Lands Unsuitable Petition found that blasting could damage the campus. In addition, the school's viewshed would be adversely affected by surface coal mining. The order did not allow the expansion of an existing surface mine near the school.

DSMRE agreed to jointly review Kentucky's existing regulations, policies, and procedures for permit findings, commonly referred to as written findings. This process was formalized in OSM's 2000 and 2001 Performance Agreements. The former written findings used by Kentucky were developed and implemented in Kentucky's "Affirmative Findings" document dated June 1984. DSMRE changed the findings approach so as to further explain and defend its decision to issue a permit. In addition, an evaluation of the permit findings process was conducted. This process included completeness determinations, technical determinations, and identified the documents that support and include an analysis of the findings.

In September 2001, DSMRE implemented the new findings documents, including those for major revisions. Therefore, this outstanding issue from the last annual report is resolved.

Kentucky continues to provide full regulatory and reclamation authority over coal mining and reclamation operations on federal lands within the state. The cooperative agreement approved on November 2, 1998, designates NREPC as the authority to administer the program, including permit processing and reviews, enforcement, bonding, and inspections. OSM retains authority for National Environmental Policy Act (NEPA) compliance, determining valid existing rights, mine plan (resources recovery) approval, and compatibility determinations with national forests.

The Appalachian Clean Streams Initiative (ACSI) was developed to encourage the cleanup of streams in Appalachia polluted by acid mine drainage (AMD). Kentucky continues to support this initiative.

A major project is to mitigate AMD problems and restore the fishery potential in the lower four miles of Rock Creek, a tributary to the Big South Fork of the Cumberland River in McCreary County, Kentucky. The initial phase of a project was begun during EY 2000, with work continuing in 2001. This phase involved treatment of selected sections of AMD-impacted streams with limestone sand. Phase 2 of this project is expected to begin in EY 2002.

Two other ACSI projects were ongoing in western Kentucky during the EY. East Diamond Tipple is being reclaimed as a joint ACSI, Abandoned Mine Land (AML), and remining project. The Ilsley Coke Ovens was initiated and completed during the EY. The 36.5-acre project reclaimed acidic barren coal waste from a coke oven area that was eroding into Copperas Creek.

DSMRE maintains an inventory of known AMD permits with related coal bed and watershed information. The inventory is updated as new information becomes available. The inventory is made available to both the Division of Permits' review staff and the Division of Field Services' inspection staff. LFO, working jointly with DSMRE, has developed and maintains a basic Geographic Information System map of the inventory.

The Kentucky Remining Team is continuing its efforts of promoting remining by: (1) evaluating potential remining sites, (2) reducing or eliminating impediments to remining, and (3) creating new incentives.

DSMRE continues to take an active role in national OSM initiatives. DSMRE has a member on the National Blasting Work Group. Their membership provides important technical information on the mining practices and conditions in Kentucky. DSMRE and LFO have also been active participants with the Interstate Mining Compact Commission on the national remining and AMD initiatives. In addition, DSMRE is a cooperating agency on the Environmental Impact Statement (EIS) on mountaintop mining and valleyfills.

DSMRE is actively promoting reforestation as a post-mining land use. Neighboring states have requested assistance from DSMRE in developing their reforestation initiatives. DSMRE is a partner in the National Reforestation Initiative.

DSMRE continues its efforts on the electronic permitting initiative. The Division of Permits has been accepting electronic Ownership and Control applications for review since September 1, 1997, with a hard copy submittal scanned and processed through electronic workflow. Over 4,500 Ownership and Control applications had been processed electronically as of March 1, 2001. The first true, electronic technical permit application was issued on September 21, 2000.

Electronic workflow processing is currently being implemented throughout the Technical Review Sections and will be utilized to monitor both electronic and hard copy submittals. Electronic workflow processing builds accountability into permit monitoring by tracking an application from desk-to-desk throughout the permitting process. Electronic workflow processing will also utilize built-in fail-safes to prevent the approval of an application prior to the close of the public comment period or with pending protests.

DSMRE is also implementing initiatives for improved technological enhancements in enforcement procedures. Field inspectors are now using the electronic mine inspection report program and digital cameras.

On April 18, 2001, DSMRE and LFO conducted an off-site blasting strategy session. The purpose was to discuss and resolve current blasting issues, as well as to jointly explore methods of improving the regulation of blasting. Subsequently, on July 6, 2001, DSMRE developed new and innovative guidelines called the "Blasting Oversight Program." These guidelines emphasized the high priority DSMRE has placed on reducing blasting violations, especially flyrock, with an emphasis on providing blasting training to field inspectors and their supervisors.

As a result of the October 11, 2000, slurry impoundment failure at Martin County Coal Corporation (MCCC), OSM and DSMRE began a joint review of all Mine Safety and

Health Administration-(MSHA) Class impoundments located in Kentucky. The review involves several initiatives including:

1) Development of an inventory and data base on all coal refuse slurry impoundments and other MSHA-Class impoundments in Kentucky, including identification of all structures within 500 feet of underground mines;

2) Development and implementation of a plan for joint OSM/DSMRE field inspections to collect site information and analyze site conditions;

3) Completion of a risk assessment of the potential for impounded slurry, water, or other materials to drain in an uncontrolled manner into underground mine works that are either underlying or adjacent to the impoundment;

4) Determination of those impoundments to have leak or breakthrough potential and appropriate remediation measures by conducting an in-depth technical review and analysis;

5) Assessment of the procedures used for requisite approvals for surface mining activities with 500 feet of an underground mine and for the evaluation of the foundation of disposal facilities;

6) Assurance that the approved state program requirements for impoundments are no less effective than the federal regulations; and,

7) Determination of whether existing regulations and engineering practices may need revision to ensure protection of public health, safety, and the environment.

A total of 117 (89 coal slurry, 28 freshwater ponds) MSHA-Class impoundments are located in Kentucky. At the end of the EY, DSMRE had inspected 89 impoundments (69 coal slurry, 20 freshwater ponds) with technical assistance from OSM. This involved an in-depth review of all impoundments rated as "high-breakthrough potential" by MSHA. A number of enforcement and permitting actions have been taken by DSMRE as a result of these inspections. DSMRE and OSM plan to look at the remainder of the impoundments in EY 2002. The results

will be discussed in next year's annual evaluation report.

In 1986, OSM initiated the annual Excellence in Surface Coal Mining and Reclamation Awards to give national recognition to the people and companies responsible for outstanding achievements in environmentally-sound surface mining and land reclamation. Since that time, numerous Kentucky surface coal mining operations have been recognized for their exemplary manner in implementing SMCRA requirements. During this EY, one company received a national award.

The national award went to McCoy Elkhorn Coal Corporation for its coal preparation and loadout facility with an active refuse fill and slurry impoundment in Pike County, Kentucky. The features identified in the award were its excellent mining and reclamation practices and its "good neighbor policy." Their push towards excellence in environmental stewardship and their civic-minded management style serve as a model for others to achieve.

**Issues outstanding at the end of the EY are as follows:**

Disposal of Underground Development Waste

It was discovered during a random oversight inspection that specific design requirements were not being required for permits involving disposal of underground development waste. The issue was determined to be programmatic. In a letter dated December 16, 1993, DSMRE advised LFO of its willingness to adopt changes to the regulation. The planned changes would be similar to those promulgated by Virginia. Kentucky projected that draft regulations would be available around April 1, 1994. During the past year, DSMRE noted that it may develop policy guidelines with respect to existing regulations relative to the disposal of underground mine waste in backfill areas in lieu of promulgating new regulations. However, no official correspondence has been received.

Probable Hydrologic Consequences

LFO and DSMRE have been discussing outstanding hydrology issues concerning the prediction of AMD for surface and underground mines and ground and surface water monitoring. Joint special studies were initiated during EY 2000 and continued during EY 2001. The study should be completed during EY 2002. DSMRE is making progress in identifying and solving the hydrology issues.

Roads

The permitting of public roads continues to be a difficult issue in Kentucky. The federal permitting requirements are set forth in the definition of "affected area" insofar as it excludes roads, which are included within the definition of "surface coal mining operations." To apply these definitions, judgments must be made with regard to whether roads are maintained with public funds and whether there is substantial public use. LFO and DSMRE continue to discuss the issues related to permitting of public roads.

Surety and Bonding

SMCRA requires that reclamation performance bonds be posted by operators prior to undertaking a surface coal mining operation. These performance bonds must be adequate enough to allow completion of reclamation by the state regulatory authority, should the mining company default. SMCRA allows mining companies to self-bond, obtain bonds from insurance carriers, or pay fees to alternative bonding systems, such as state bond pools. Insurance companies providing reclamation bonds are subject to regulation by state insurance commissioners and the U.S. Treasury Department. If these companies become insolvent, the mining companies must replace the bonds. Three surety companies have become insolvent or are nearing insolvency. Kentucky experienced problems with three surety companies that caused problems for coal companies trying to obtain surety bonds for its permits. On August 27, 2001, Kentucky's Department of Insurance suspended Frontier Insurance Company's (Frontier) Certificate of Authority to transact business in the state. On August 28, 2001, DSMRE sent official notices to 41 coal companies involving 468 surface coal mining permits in

Kentucky with Frontier performance bonds. The notices ordered those companies to obtain new performance bond coverage within 90 days or cease coal extraction and begin reclamation operations. Total bond liability for those permits is $296,442,949. This represents approximately 35 percent of the total outstanding bond liability in Kentucky. At the end of the EY, Kentucky reported that the total outstanding bond liability with Frontier bonds has been reduced to $285,687,179. This reduction is due to bond replacements, bond releases, or permit transfers.

On October 5, 2001, Kentucky sent official notices to 26 coal companies involving 125 surface coal mining permits in Kentucky with either Reliance Insurance Company or United Pacific Insurance Company surety bonds. The letters notified the companies that they have 30 days to obtain coverage from other bonding companies. This was done after it was determined that these two surety companies were no longer authorized to provide surety bonds in Kentucky. These actions are related to the liquidation proceedings that were initiated by the Pennsylvania Insurance Department. Total bond liability for these two surety companies is $2,415,600 and $17,052,994, respectively.

2000 State Legislation

The Kentucky legislature passed House Bill (HB) 599 that would terminate mining violations due to the lack of site access.

OSM routinely reviews amendments to state laws and rules in order to assure state regulatory programs for coal mining are no less effective than the federal program. As part of this SMCRA-established process, OSM recently disapproved Kentucky HB 599 (see Federal Register 33020, June 20, 2001). HB 599, if implemented, would allow the termination of a state "notice of non-compliance" or "cessation order" for coal mining permit violations if the party responsible for abatement is denied access to the land. This is less effective than SMCRA and the federal regulations at 30 CFR 843.11(f) and 843.12(e), which specify that the exclusive grounds for termination of violations are abatement of all "conditions, practices, or violations listed in the order or notice." A mining operator is responsible for the reclamation of

surface coal mining operations, including abatement of all violations, regardless of impediments that may be raised by recalcitrant landowners.

In response to OSM's disapproval of a Kentucky State law, the Kentucky Coal Association exercised its appeal right on August 16, 2001, by filing suit against OSM. The plaintiff contends that OSM's failure to approve this program amendment is arbitrary, capricious, and inconsistent with law. The suit asserts that SMCRA includes no counterpart to Kentucky HB 599, and thus, OSM was in error disapproving the provision.

Kentuckians for the Commonwealth Lawsuit

Although DSMRE and OSM are not listed as parties in this lawsuit, it does have the potential to affect the approved state program in Kentucky.

On August 21, 2001, the Kentuckians for the Commonwealth filed a lawsuit against the U.S. Army Corps of Engineers (COE) challenging the issuance of a permit to MCCC under Nationwide Permit (NWP) 21. Under Section 404 of the Clean Water Act (CWA), 33 U.S.C. Section 1344, COE has issued various nationwide permits of which NWP 21 has been issued to cover various coal mining activities that individually and cumulatively do not cause more than minimal impacts to the waters of the United States. The lawsuit challenges an authorization by the COE's Huntington District Office under NWP 21 for MCCC to construct excess spoil fills in various streams. The COE action authorizes the placement of 27 excess spoil fills in streams with a cumulative impact of filling in 6.3 miles of headwater streams. DSMRE has issued permit number 880-0135 to MCCC under the approved state program in Kentucky. This state permitting action is not the subject of this litigation, but the mining authorized under this permit could be impacted by the decision on the lawsuit. On September 27, 2001, DSMRE approved the transfer of the permit to Beech Fork Processing, Inc., as the operator.

Even though the mine is in eastern Kentucky, the lawsuit was filed in the U.S. District Court in Charleston, West Virginia, because the COE office is in Huntington, West Virginia. OSM will monitor developments in the lawsuit for any impacts to SMCRA.

Mountaintop Removal Mining

LFO collected permit-specific information on new permits issued by DSMRE for calendar year 2000. The permit-specific information includes data on mountaintop removal mining, approximate original contour (AOC), and spoil generation. See Appendix E for the report findings.

DSMRE held several meetings during the EY to build consensus on AOC and mountaintop removal issues. The industry, environmental community, and regulators attended the meeting. DSMRE's draft policies on AOC and excess spoil fill construction were discussed.

DSMRE and OSM will continue discussions of the draft policy on AOC and the final policy on "wing-dumping" of excess disposal fills. Kentucky developed a draft Reclamation Advisory Memorandum on September 6, 2001, on revising current policies on durable rock fills, including wing-dumping. Finalization is pending review of OSM and industry comments.

B. Abandoned Mine Land Reclamation (AMLR)

The Kentucky AMLR program is successful in achieving lasting and effective reclamation of mined lands. Construction grants continue to include high priority projects. Kentucky continues to consider high priority project selection criteria for AML emergency complaints referred to them by OSM. During the EY, Kentucky completed 23 AML projects (priorities one and two) and submitted 49 new projects for authorization to proceed. Seven of the projects will provide a safe domestic water supply for 1,095 residences and a transmission line to adjacent communities, at an estimated cost of $4.2 million.

The current management of DAML continues to implement significant improvements in its program. DAML's continued support of the procedures implemented in EY 1996 and EY 1997 improved the internal control and support for change orders, as recommended in the previous audit of the state AMLR program. Kentucky fully supports the direct access to the AML Inventory System (AMLIS) that allows DAML to electronically input

AML problem data. DAML has been directly updating the AMLIS since the fall of 1995.

DAML also administers the reclamation of Title V permits in bond forfeiture using forfeited reclamation bonds. DAML continues to improve its effort in reclaiming forfeited permits. During EY 2001, DAML issued 17 new group contracts containing 61 permits with a total of 290.87 acres. In addition, DAML continued reclamation activities on ten group contracts containing 38 permits with 843.18 acres from the previous EY. DAML completed reclamation on 21 group contracts containing 52 permits with 470.97 acres and 26 small purchase contracts consisting of 29 permits with 48.77 acres. At the end of EY 2001, seven group contracts containing 25 permits with 129 acres were on-going. Table 7 reports that DAML reclaimed a total of 633.66 acres during the EY.

During this EY, OSM investigated 143 emergency complaints. OSM referred 74 complaints to the state when the site conditions did not meet federal emergency criteria. OSM evaluated 69 complaints for declaration as federal emergency projects. Thirty-six of these complaints were declared federal emergency projects. OSM referred seven to the state as serious, high priority AML problems that did not meet emergency criteria. These complaints are either being monitored or are currently under evaluation by the state. Out of the remaining complaints, 15 are still under OSM review, and 11 were determined not to be related to coal mining. Overall, the Kentucky program is effectively administered. DSMRE maintains a strong commitment to protect the environment and citizens of the coalfields while regulating and encouraging a viable coal industry. OSM expects to maintain an excellent working relationship with DSMRE and looks forward to a continued joint commitment to improve the Kentucky program.

## V. Success in Achieving the Purposes of SMCRA as Measured by the Number of Observed Off-Site Impacts and the Number of Acres Meeting the Performance Standards at the Time of Bond Release

### A. Off-Site Impacts

During the EY, DSMRE issued 775 Non-Compliances (NC). These NC's cited 1,360 performance standards. The most

frequently cited violation types were general permit provisions and other. A breakdown by type of performance standard based on the 50 category types presented as a percentage is as follows:

| Percentage of Total Performance Standards Cited in EY 2001 | | | | | | |
|---|---|---|---|---|---|---|
| General Provision/ Other | Sediment Control | Backfilling & Grading and Contemporaneous Reclamation | Water Quality | Effluent Limits | Water Moni-toring | Remaining 43 Categories |
| 24.5 | 13.8 | 10.1 | 7.9 | 5.7 | 5.1 | 32.9 |

A total of 96 Cessation Orders (CO) was issued by DSMRE (72 Failure-to-Abate CO's, 22 Imminent Harm CO's, and two Illegal Mining CO's).

For this EY, Kentucky issued 117 NC's and 17 CO's that contained off-site impacts. The 134 enforcement actions resulted in 168 performance standard violations with measurable off-site impacts. The determination of off-site impacts was based on DSMRE's documentation and LFO's review of all inspection reports associated with state enforcement actions. The review of the Inspector's Violation Statement prepared for the penalty assessment was the primary resource document. Out of the 168 violations with off-site impacts, 183 different impacts were identified, as shown on Table 4.

The 134 enforcement actions involved 94 permits with off-site impacts. This represents approximately four percent of the minesites in Kentucky.

The three most common types of off-site impacts are hydrology (47 percent), encroachment into prohibited areas (25 percent), and blasting (11 percent). From the data collected, the total impacts assessed from coal mining operations for the EY included 122.8 miles of streams, 260.3 acres of land, 12 wells, and 13 homes. The majority of impacts were minor. However, as indicated, the largest impacts were associated with a few permits.

The findings for off-site impacts indicate that approximately 58 percent of the measured incidents involved land and 33 percent involved water. Also, 67 percent of the incidents were minor, 15 percent were moderate, and 18 percent were major.

One major incident occurred in Kentucky at the beginning of the EY. On October 11, 2000, slurry from MCCC's Big Branch Coal Waste Impoundment broke into adjacent underground mine works, resulting in the release of an estimated 306 million gallons of slurry into two watersheds of the Tug Fork of the Big Sandy River. The 72-acre slurry impoundment drained through the underground mine and exited into Coldwater Creek and Wolf Creek watersheds of Martin County, Kentucky.

The slurry discharge from the Number 2 North Portals immediately filled and overtopped a sediment control pond. As the discharge moved downstream along the upper reaches of Coldwater Fork, slurry filled and overtopped the stream channel for the first eight miles, covering the narrow valley flood plain and property of some of the residents. Seven homes became inaccessible. Coldwater Fork empties into Rockcastle Creek, which runs through Inez, Kentucky. While the spill remained largely within the stream channel, it continued to discolor the stream beyond Inez.

The South Mains Portal discharge eroded a very large gully a short distance from the portal and destroyed a sediment control pond. The slurry then entered Big Andy Branch and Panther Fork before entering Wolf Creek. Wolf Creek drains into Tug Fork of the Big Sandy River. Overtopping of the stream banks occurred in the first four miles of the Wolf Creek drainage. The movement of the slurry down Wolf Creek, Tug Fork, and the Big Sandy River caused significant problems with the downstream water supplies. As a result, on October 16, 2000, Kentucky Governor Paul Patton declared a state of emergency in ten counties in northeast Kentucky. The ten counties are Martin, Lawrence, Boyd, Carter, Greenup, Lewis, Fleming, Mason, Robertson, and Bracken. Within one week of the breakthrough, over 75 miles of stream below the impoundment had been impacted. By October 17, 2000, the spill had reached the Ohio River at Catlettsburg, Kentucky.

The visibility of the slurry diminished as it flowed downstream. By the time the slurry reached the Ohio River, most of the coal refuse had settled out of suspension. The slurry impacted municipal water supplies at:

- Kermit, West Virginia, located on the Tug Fork just below the mouth of Wolf Creek.

- Crum, West Virginia, located downstream of Kermit on the Tug Fork with municipal water supplied by Kermit.

- Louisa, Kentucky, which withdraws water from the Levisa Fork of the Big Sandy River.

- Fort Gay, West Virginia, which withdraws water from the Tug Fork at the Big Sandy River confluence located across the river from Louisa.

- Kenova, West Virginia, which withdraws water from the Big Sandy River.

- Inez, Kentucky, located on Rockcastle Creek.

Massey Energy Company, MCCC's parent company, in its May 29, 2001, second quarter corporate news report for FY 2001, discussed the clean-up effort. The report stated that "over 500 people and 300 pieces of equipment were mobilized to clean-up the MCCC slurry spill, which has now been completed. Total cost for the clean-up is now estimated at $56 million dollars." A number of civil suits are pending, involving numerous citizens alleging impacts and seeking damages from MCCC.

As a result of several breakthroughs over the last few years and the latest in Martin County, Kentucky, on November 2, 2000, OSM announced an action plan to assure that impoundment breakthroughs into underground mine workings do not occur in the future. To accomplish the objectives spelled out in the OSM action plan, ARCC developed an implementation plan to complete the following three tasks:

Task 1: Establish a regional impoundment technical committee to determine the factors contributing to the MCCC impoundment breakthrough.

Task 2: Expand the technical committee to include state and MSHA technical representatives. The expanded committee, using its combined experience along with information gained from the Kentucky and Virginia experiences, will develop criteria that should be considered in reevaluating high-risk impoundments over or adjacent to underground mine workings.

Task 3: Develop and implement individual field office work plans designed to minimize the potential for future impoundment leaks or breakthroughs into underground mine workings.

B. Bond Release

The goal of reclamation is to reclaim land mined by a surface coal mining operation to a stable condition, vegetated, non-polluting, and of equal or greater value than the pre-mining condition. To achieve the goals of reclamation, a system of phased bond releases has been implemented in Kentucky. To satisfy Phase I requirements in Kentucky, the reclaimed area must be backfilled, regraded, topsoiled, seeded, mulched, drainage-controlled, and a planting report submitted. Phase II requires the reclaimed areas have established revegetation in accordance with the approved reclamation plan and meets the standards for revegetation success, except for productivity standards. Also, the reclaimed area must not contribute suspended solids to stream flow or runoff outside the permit area. Phase III requires that the reclaimed area must successfully meet all surface coal mining and reclamation standards in accordance with the approved reclamation plan, that the reclaimed land must be capable of supporting the approved post-mining land use requirements, and that the applicable liability period must have expired.

In Table 5, Annual State Mining and Reclamation Results, Kentucky reported that it granted bond releases on 10,987.20 acres for Phase I reclamation, 9,246.69 acres for Phase II reclamation, and 19,022.42 acres for Phase III reclamation. OSM's review of these minesites, through 112 joint inspections on Phase I and Phase III

bond releases, found that the state is meeting the requirements of its bond release program on permanent program permits.

## VI. OSM Assistance

Table 9, Funds Granted to Kentucky by OSM, identified federal funds awarded during FY 2001. The AML program received $18,894,469, which is 100 percent of the total program cost. SOAP, which is also 100 percent federally funded, received $1,031,677. The A&E grant, which funds the regulatory program, was for $12,663,898.76. The regulatory program is 50 percent federally funded, except for the $487,315 that Kentucky received to run the Federal Lands program. The Federal Lands program is 100 percent federally funded and is included in the A&E grant.

During the EY, DSMRE requested OSM assistance to provide blasting training for its field staff. OSM provided the training in each of the five DSMRE regional offices.

OSM is committed to provide adequate funding and technical assistance to the Kentucky program. Technical training courses are available to DSMRE upon request. Regional and LFO technical staff are also available to provide support to the Kentucky program.

## VII. General Oversight Topic Reviews

During EY 2001, LFO completed 469 oversight-related inspections and nine permit reviews. Of this total, 144 were random sample inspections, and 55 were Phase III bond release inspections conducted jointly with DSMRE personnel. As a result of the Acting Director's initiative, LFO conducted 77 slurry impoundment inspections. A total of 49 field inspections and nine permit reviews resulted from special studies outlined in the EY 2001 Performance Agreement. Nine inspections were listed as document reviews. The remaining 135 inspections were follow-up inspections completed by LFO resulting from the issuance of Ten-Day Notices (TDN), citizen complaints, and federal enforcement actions.

LFO issued 57 TDN's during the EY. These 57 TDN's contained 98 potential performance standard violations. Fifty-four TDN's were a direct result of written citizens' complaints. One was the result of a complete oversight inspection, and two were the result of document reviews. As of the close of

the EY, 22 TDN's were pending a decision on appropriateness. Fourteen of these pending TDN's were from a previous EY. One TDN response was judged inappropriate during the EY. This TDN concerned a citizen's allegation of well water loss. Citizens appealed two Field Office Director 's (FOD) determinations that the state had taken appropriate action with respect to the citizen's complaint. A decision on both of these appeals is pending. LFO's decision was reversed on one state appeal of the FOD's determination on a previous EY TDN. This TDN concerned elimination of a highwall.

There were no federal enforcement actions taken during the EY.

LFO conducted 102 oversight inspections on state AMLR projects in accordance with the EY 2001 Oversight Performance Agreement as follows:

15 pre-authorization inspections
10 pre-construction inspections
47 active construction inspections
18 final construction inspections
12 post-construction inspections
0 citizen complaint inspections concerning a state AML project

OSM identified seven concerns on six inspections of six projects. All of the concerns were satisfactorily resolved with the state. All were site-specific or construction-oriented in nature, with no programmatic concerns identified. As needed, the state took measures to minimize or prevent these concerns from reoccurring.

Several special oversight studies were initiated this EY, but were not completed due to the complex nature of the studies and/or the workload of the staff involved. The studies include Temporary Cessation, Slurry Impoundments (Moderate/Low Risk), and Slurry Impoundments (regional technical review), Probable Hydrologic Consequences, and Topsoil Substitution. In addition, OSM's report on the MCCC Big Branch slurry impoundment failure will be finalized in FY 2002.

The following oversight studies were completed during the EY.

A. Random Sample

LFO's oversight format provides for a general assessment through random oversight inspections. In addition, it focuses on specific program areas jointly selected for special emphasis in oversight studies. During this EY, October 1, 2000, through September 30, 2001, LFO conducted 144 random complete inspections for a general assessment of Kentucky's program. The random sample was based on active and Phase I bond release surface and underground coal mining and reclamation operations in Kentucky. The purpose of these inspections was to evaluate the degree of industry compliance with the approved state program.

OSM found that 123 of the 144 (85 percent) minesites in Kentucky were in full compliance with all performance standard categories. On the other 21 sites, 61 violations were observed. The performance standards most often in non-compliance were the hydrologic balance, backfilling and grading, and permit administration. OSM inspectors evaluated the seriousness of violations on random complete inspections. The data for the 143 random inspections shows that 62 percent of all the violations did not have an off-site impact, and 38 percent extend outside the permit area. In addition, 39 percent of the violations are minor, 48 percent have a moderate degree of impact, and 13 percent have a considerable degree of impact. For all 61 violations identified during complete inspections, the state took appropriate action. One TDN was issued and appropriately resolved.

B. Inspection Frequency

Kentucky's inspection frequency was evaluated during the random sample inspections. This method involved a statistical measurement of inspection frequency using a random sample of inspectable units. The required frequency was based on 405 KAR 12:010, Section 3(5). This provision requires the state to conduct one complete and two partial inspections per calendar quarter for all minesites, except Phase I bond release sites with a determination that the site is revegetated and stable or Phase II bond release sites. Those sites in the bond release process or in temporary cessation

require the state to conduct one complete inspection per quarter.

| Coal Mines and Facilities | Number of Complete Inspections | Number of Partial Inspections |
|---|---|---|
| Active | 8,976 | 15,198 |
| Inactive | 508 | 260 |
| Abandoned | 63 | 23 |
| **TOTAL** | 9,547 | 15,481 |

Inspectable Unit Information

| | |
|---|---|
| Total Number of Permits Requiring Inspections During this Period | 2,136 |
| Total Number of Permits Meeting Frequency | 2,135 |
| Percentage of Permits Meeting Frequency | 99.9 |

From the information provided, Kentucky's inspectors conducted 25,028 inspections and met inspection frequency on 99.9 percent of the inspectable units. This evaluation indicates DSMRE's continued high commitment to meet the inspection frequency. This is a significant accomplishment considering the large number of inspectable units.

C. Phase I Bond Release Inspections

This study includes 57 Phase I bond-released minesites that were inspected as part of OSM's random oversight inspection program. OSM inspections on these minesites were to determine if all applicable bond release standards were met at the time the Phase I bond release was granted by Kentucky. OSM found Kentucky is meeting its requirements for Phase I bond release on permanent program permits.

D. Phase III Bond Release Inspections

This study reviewed 55 Phase III bond release applications. OSM inspections on these Phase III bond release applications were conducted jointly with the Kentucky inspector and the bond release specialist. OSM

found that Kentucky is meeting its requirements for Phase III bond release on permanent program permits.

E. Fill Inventory

OSM conducted 196 file reviews on permitting actions issued by Kentucky for calendar year 2000. The file review collected pertinent fill and watershed information on 270 proposed excess spoil fills. See Appendix E for the review findings.

F. Acid Mine Drainage

On December 11, 1997, Kentucky issued a comprehensive AMD policy. Included in the policy were new procedures on inspection, permitting, bonding, and other program areas. Since that time, Kentucky has made significant progress in addressing AMD issues. As part of the policy requirements, Kentucky required permit revisions on minesites with active AMD discharges. At present, performance bonds have been increased by Kentucky on 15 minesites identified to require long-term treatment.

Even prior to implementing the 1997 policy, Kentucky began efforts at developing an inventory of all known minesites that have or have had an AMD discharge. From that effort, Kentucky now maintains two inventories of AMD minesites. The first inventory is known as the Historical Inventory. It includes all minesites that have or have had some sort of AMD discharge since primacy. This inventory presently includes 195 permits varying in status from active to bond-forfeited. From the Historical Inventory, Kentucky developed a second inventory, known as the Active Inventory. This inventory includes minesites that have or have had an active AMD discharge during the past 12 months. Minesites remain on this list until 12 months of water sampling show that there is no longer an AMD discharge. At present, there are 77 minesites on the Active Inventory. Both inventories are updated as new information becomes available.

During the EY, LFO conducted seven follow-up inspections on AMD sites removed from Kentucky's Active Inventory. The purpose of these inspections was to verify that the sites no longer produce AMD. In addition, a Geographic Positioning System (GPS) unit was used to locate each

site. OSM found that each minesite was properly removed from the Active Inventory.

LFO also conducted eight inspections on the AMD Historical Inventory in order to locate the AMD discharge points using GPS. Water samples were also collected on each discharge, and the results were provided to Kentucky and to the Appalachian Regional Coordinating Center (ARCC).

LFO also conducted a special study on 15 permits where Kentucky had adjusted its performance bond to address long-term AMD discharges. The review also evaluated Kentucky's AMD policy. The study was still being finalized at the end of the EY.

LFO conducted a file review on 32 permits from the Active Inventory to validate data. The review confirmed that information contained in the AMD Active Inventory is correct.

G. Right-of-Entry (ROE)

This oversight study was conducted in response to industry concerns about permit issuance delays. The study reviewed the number of ROE protests received by NREPC and the timeframes for processing these protests. Overall, the study found that the current procedures have little impact on the permit review process. However, in isolated instances, the reviews have resulted in a delay in the issuance of a permit. The majority of the delays are results of the applicant (1) failing to fully respond to the reviewer's request for information in response to a protest, and (2) failing to include the appropriate ROE documentation in the original permit application.

H. Office of Legal Services

On December 22, 2000, OSM finalized an oversight report on the Office of Legal Services' (OLS) salary and non-salary cost distribution policy and procedures. This report's findings were part of OSM's ongoing review of the A&E grant issued to NREPC.

The report found that:

- OLS is properly coding all non-coal activity to state accounts.

- OLS had adequate internal controls in place to document salary expenditures and distribute associated costs.

- The grant does not contain adequate information on OLS to identify goals and accomplishments of its organization with regard to the regulatory program.

As a result of this study, OSM decided to evaluate the workload trends and staffing of OLS. On September 18, 2001, OSM finalized an oversight report on OLS's staffing and workload trends. This report found that the staffing level is being properly managed. OLS staffing has decreased at the same rate as the staffing in DSMRE's inspection and permitting programs. OLS has similar staffing levels as the surrounding states when like functions are compared. The report also found that OLS has adequate procedures in place to maintain the caseload commensurate with the level of staff. OLS continues to meet its obligations on alternative enforcement and collection of civil penalties. Finally, the workload over the past ten years has decreased, but has stabilized over the past four years.

I. Steep Slope

During the EY, DSMRE and OSM completed a joint special study on steep slope mining. The study included the evaluation of the permit boundary and perimeter protection by mining operations in steep slope terrain. The purpose of the study was to determine if adequate safeguards are included in the permit and maintained in the field to minimize impacts to land adjacent to the permitted area. At the end of the EY, the report was prepared in draft and will be finalized during EY 2002.

J. Blasting Practices

DSMRE and LFO conducted a joint oversight special study on blasting practices. The study originated in response to a marked increase in the number of flyrock incidents and blasting complaints received by both agencies.

The study began in 1999 and was completed in June 2001. A total of 31 permits was reviewed during the study period. The team reviewed selected permits in each DSMRE regional office that were actively blasting within one-quarter of a mile of residential dwellings. The study identified several problems with the design and implementation of blasting plans. The most significant finding was inadequate blasting records. In addition, the team identified areas of improvement needed in the review and approval of blasting plans submitted to DSMRE.

K. AML Change Orders

This study consisted of a review of change orders that resulted in increased project costs involving contracts on AML projects. The study determined that DAML's procedures are sufficient to satisfy future state AML program audits and provide adequate internal controls.

L. AML Post-Construction

This study consisted of a post-construction review of AML projects. Ten projects that had been completed for at least two growing seasons, but not more than five years, were visited in the field. This year's review included water supply projects, since water supply projects make up about 30 percent of Kentucky grant funds expended. There was one water supply project sample selected for the review. The study found that revegetation efforts were successful, even with the serious drought conditions that prevailed in Kentucky during the 1998 and 1999 summer months. A visual estimate of the vegetative cover on the projects averaged 84.2 percent. Only very minor maintenance needs were identified on a few projects. In general, the state's long-term success is very effective in achieving the reclamation goals of both the projects and the AML program.

Copies of individual topic reviews may be requested in writing to the following address:

Office of Surface Mining
Lexington Field Office
2675 Regency Road
Lexington, Kentucky 40503-2922