

Office of Surface Mining

Twenty-First Annual Evaluation Summary Report

for the

Regulatory and Abandoned Mine Land Reclamation Programs

Administered by the Commonwealth

of

Kentucky

for

Evaluation Year 2003

(October 1, 2002, to June 30, 2003)

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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, 2002, to June 30, 2003. OSM revised the ending date for this evaluation year (EY) in response to the Office of Management and Budget (OMB) and Department of Interior's decisions to accelerate the dates that annual agency performance and accountability reports are due to OMB and Congress. Thus, and in order to allow sufficient time of adherence to agreed-upon submission and review procedures for the annual state evaluation reports, the length of this year's annual reporting period and oversight data reporting have been reduced from 12 to nine months. Subsequent annual reports and oversight data reporting periods will commence on July 1 and end on June 30, for a full 12 months.

Detailed background information and comprehensive reports for the program elements evaluated during the EY are available for review and copying at the OSM Lexington Field Office (LFO).

This report follows the same format as in the past seven 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 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.

The following list of acronyms is used in this report:

A&E	Administration and Enforcement
ACSI	Appalachian Clean Streams Initiatives
AMD	Acid Mine Drainage
AML	Abandoned Mine Land
AMLIS	Abandoned Mine Land Inventory System
AMLR	Abandoned Mine Land Reclamation
ARCC	Appalachian Regional Coordinating Center
CO	Cessation Order
COE	U.S. Army Corps of Engineers
CY	Calendar Year
DAML	Division of Abandoned Mine Lands
DMM	Department of Mines and Minerals
DSMRE	Department for Surface Mining Reclamation and Enforcement
EY	Evaluation Year
FOD	Field Office Director
FY	Fiscal Year
GIS	Geographic Information System
KAR	Kentucky Administrative Regulation
LFO	Lexington Field Office
LTT	Long-Term Treatment
MCCC	Martin County Coal Corporation
MSHA	Mine Safety and Health Administration
NREPC	Natural Resources and Environmental Protection Cabinet
NC	Notice of Non-Compliance
NWP	Nationwide Permit
OMB	Office of Management and Budget
OSM	Office of Surface Mining
PHC	Probable Hydrologic Consequences
POV	Pattern of Violations
RA	Regulatory Authority
RD	Regional Director
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 (RA) 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 Fiscal Year (FY) 2003 Administration and Enforcement (A&E) Grant was in the amount of \$12,993,691 (federal funds) and supports 340.54 positions. OSM funds 82 positions in DAML with a grant of \$16,464,521 for FY 2003. The Small Operator Assistance Program (SOAP) was awarded grant funds of \$403,631 for FY 2003.

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, Teri Blanton, 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. Kentucky's coal production has steadily decreased from the late 1990's through the end of this EY.

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 two-thirds 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 works must be permitted. However, most underground mines actually disturbed very little surface acreage. Of the total disturbed acreage from coal mining in Kentucky (247,471 acres), only 26,197 acres (or approximately ten percent) are attributed to underground mines. A review of underground mines in Kentucky indicates the following increases in size during the last four EY's as follows:

Underground Mines Permitted Acreage	EY 2000	EY 2001	EY 2002	EY 2003
Less than 20 acres	2%	1%	1%	1%
20-99 acres	7%	6%	6%	5%
100 acres or more	91%	93%	93%	94%
Underground Mine Surface Disturbance Acreage	EY 2000	EY 2001	EY 2002	EY 2003
Less than 20 acres	71%	70%	70%	69%
20-99 acres	23%	24%	24%	24%
100 acres or more	6%	6%	6%	7%

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 2000	EY 2001	EY 2002	EY 2003
Less than 20 acres	14%	13%	13%	13%
20-99 acres	25%	24%	23%	22%
100 acres or more	61%	63%	64%	65%

The number of surface mines that are greater than 100 acres has increased significantly over the last 11 evaluation periods in Kentucky. OSM's tenth annual report stated that 42 percent of the surface mines were larger than 100 acres. The fifteenth annual report reported 55 percent of the surface mines were larger than 100 acres. As of June 30, 2003, the data shows that 65 percent of the surface mines were larger than 100 acres. The following table further categorizes the number of surface mines by size.

Permitted Acreage	Number of Surface Mines		Percent of Total Surface Mines	
	EY 2002	EY 2003	EY 2002	EY 2003
100-250	253	250	19	19
250-500	266	252	20	19
500-1,000	203	204	15	15
>1,000	135	143	10	10

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 2003. The EY 2003 Performance Agreement was finalized and signed by DSMRE on November 15, 2002.

During the EY, LFO received no specific recommendations for oversight studies from its stakeholders. DSMRE continues to make blasting practices and the prevention of associated off-site impacts top priorities.

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.

Kentucky experienced an extremely wet spring. The heavy rainfall affected both the Regulatory and AML programs. LFO received a record number of AML complaints during the EY.

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

A. Regulatory

Kentucky continues to provide regulatory jurisdiction over coal mining and reclamation operations on federal lands within the state. A cooperative agreement approved on November 2, 1998, designates the Natural Resources and Environmental Protection Cabinet (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 compliance, determining valid existing rights, mine plan (resources recovery) approval, and compatibility determinations within national forests.

DSMRE maintains an inventory of known Long-Term Treatment (LTT) permits with related coal bed and watershed information. The LTT policy revised the terminology of the original Acid Mine Drainage (AMD) policy requiring an expanded inventory of sites, including treatment of effluent for any chemical parameter. The inventory is routinely updated and 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 (GIS) 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. Its 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 on mountaintop mining and valleyfills.

The DSMRE Commissioner serves as a member of the steering committee for OSM's Technical Innovation and Professional Services program. He is also a member of the steering committee for OSM's Technical Training program. DSMRE continues to actively promote reforestation as a post-mining land use. DSMRE is a partner in the National Reforestation Initiative.

DSMRE and the University of Kentucky are working to provide outreach and technology transfer regarding reforestation enhancement on surface mines by:

- Promotion of Reclamation Advisory Memorandum (RAM) Number 124 dealing with soil compaction
- Promotion of market-based mine land reclamation
- Transfer research findings and new technology developed in academic circles to industry, landowners, and state/federal agencies for implementation

During the EY, one of DSMRE's major initiatives was conducting watershed (flood) analysis reviews on permitted areas. This represents a major, proactive effort to reduce potential flooding problems in eastern Kentucky.

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

Kentucky initiated three new ACSI projects during the EY (discussed below), one of which has been completed. In addition, the East Diamond Tipple project in western Kentucky is nearly completed.

The Jacks Creek project was initiated and completed during October 2002. It involved the installation of limestone channel in order to change the mine discharge from a net acid condition to a net alkaline condition. A stilling basin was constructed to allow for iron precipitation before the discharge entered the stream. Flow length through the stilling basin was increased by the installation of baffles. Circulation was enhanced by alternating orifices between the top and bottom of successive baffles.

The Coiltown project is an ongoing reclamation project involving the regrading and covering of approximately 120 acres of acidic surface mine spoil in western Kentucky. Construction was started in January 2003. The project includes installation of limestone armor along one stream reach as a method of erosion control and water treatment. Another stream reach will be the subject of a natural stream restoration effort.

The Spewing Camp project is an ongoing effort to reclaim a 60-acre coal refuse pile in eastern Kentucky. It was initiated in November 2002. The pile discharges highly mineralized runoff and sediment into the receiving stream. Reclamation involves regrading the pile and providing earth cover. Drainage ditches will be lined with limestone to provide erosion protection and alkalinity.

Following 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-Class (MSHA) impoundments in Kentucky.

In EY 2002, DSMRE and OSM completed the review and field inspection of the entire inventory of coal refuse slurry impoundments and other MSHA-class impoundments located in Kentucky. There are 118 (96 in eastern Kentucky and 22 in western Kentucky) MSHA-class impoundments in Kentucky. These 118 MSHA-class impoundments include 90 coal slurry and 28 freshwater impoundments. This initial review and the field inspections were referred to as Phase I inspections. The Phase I inspections included an on-the-ground inspection, a comprehensive review of the mine maps for any nearby underground mines, a review of the approved SMCRA permit relating to the construction and design plans for the impoundment, and a review of the MSHA files to determine whether the approved MSHA designs matched the approved SMCRA permit (reviewed MSHA/DSMRE coordination results).

The Phase I inspections identified 47 impoundments that had underground mining within 100 feet of the approved pool levels. DSMRE and OSM agreed that these high priority impoundments should undergo a more intensive review. These reviews are referred to as Phase II reviews. The joint review team, which includes an OSM mining engineer, focuses on identifying deficiencies in the design and/or construction of the impoundment that may need additional action by DSMRE. These reviews consist of a thorough examination of data gathered during Phase I inspections and a review of any subsequent permitting or construction activity that has occurred since the initial Phase I inspection. During EY 2003, 23 Phase II impoundment reviews were completed.

The Phase I inspections also found that 42 impoundments were considered either inactive or abandoned. Further review found that nine of these impoundments have been inactive since the 1980s, 30 have been inactive or abandoned since the 1990s, and the other three impoundments have become inactive since 2000.

As a result of the Phase I inspection, DSMRE issued a number of violations for failure to comply with the approved plans. In an effort to get those sites reclaimed, DSMRE also issued several violations on impoundments that were inactive and developed new procedures to review impoundment applications. DSMRE and MSHA required several of the permittees to conduct drilling around some of the impoundments in order to locate underground mine working. In addition, DSMRE required several of the permittees to submit breakthrough prevention plans. A copy of the MSHA-class impoundment inventory and the data collected on each impoundment are included in Appendix F.

As part of what is referred to as Phase III, OSM selected seven of the Phase II sites for a detailed technical review by the OSM Regional Impoundment Technical Team. During EY 2003, the team reviewed two Kentucky impoundments. Additional information concerning these reviews is provided in Section VII.

DSMRE has been active in enhancing its inspection and enforcement of blasting.

- DSMRE has taken an active role in working with Department of Mines and Minerals (DMM) to enhance and refine the current blasting certification training and testing program in Kentucky.

- DSMRE is participating, along with OSM, in a multi-state review of blaster certification training, reciprocity, and testing.
- DSMRE, OSM, and DMM continue to conduct joint inspections of flyrock events.
- DSMRE, in most instances, imposes the maximum allowed civil penalties for violations involving off-site impacts related to blast events.
- DSMRE established a group of blasting inspectors in its regional offices. Blasting inspections, both compliance and citizen complaints, will be conducted by these blasting inspectors. Also, OSM and DSMRE jointly developed a protocol that the blasting inspectors will use to inspect blasting complaints.
- DSMRE and OSM provided advanced blasting training for its blasting inspectors. In addition, DSMRE and OSM attended the MSHA blast safety training in Beckley, West Virginia.
- DSMRE, the Kentucky Coal Association, and the Coal Operators and Associates co-sponsored a one-day training course for industry blasters. The course, "Surface Mining Blasting Seminar," was held on February 26, 2003, in Prestonsburg, Kentucky.
- DMSRE and LFO initiated a joint special study on blasting records in May 2003.

One flyrock event was identified during the EY compared to eight the previous EY. For the damage caused by the flyrock, refer to the Off-Site Impacts section of this report on page 19. DSMRE aggressively investigates flyrock events and takes enforcement and permitting actions to minimize the potential for reoccurrences.

During the EY, OSM published four final rules in the Federal Register on the approved Kentucky program. The final rules approved three program amendments, disapproved one program amendment, and removed two required amendments found in 30 CFR 917.16.

A summary of the program amendments is as follows:

- On November 6, 2002, OSM approved Kentucky's revisions to its statute pertaining to easement of necessity.
- On November 20, 2002, OSM denied approval of a proposed amendment to the Kentucky regulatory program. Kentucky proposed to revise its program by creating a new section of KRS Chapter 350 to provide that a mining permit is not required of a landowner if coal extraction is incidental to and a necessary requirement of construction, under 5,000 tons, and the coal or proceeds thereof are donated to charitable, governmental, or educational organizations.
- On January 16, 2003, OSM approved, with one exception, a proposed amendment to the Kentucky regulatory program. Kentucky revised the KRS at 350.445 pertaining to the construction of a road above a highwall.
- On May 8, 2003, OSM approved a proposed amendment to the Kentucky regulatory program. Kentucky revised the Kentucky Administrative Regulations (KAR) at 16/18:090 Sections 1, 4, and 5, and added Section 6 pertaining to sedimentation ponds and "other treatment facilities."

The summary of the removal of two required amendments is as follows:

- On January 16, 2003, OSM removed a required amendment on remining, Senate Bill 374, because OSM found that the required amendment is unnecessary.
- On January 16, 2003, OSM removed a required amendment on permit renewals because OSM had disapproved and subsequently superseded provisions of the statute. This OSM action prevented Kentucky from implementing those provisions and made the required amendment unnecessary.

During the 2002 session, the Kentucky General Assembly passed KRS 352.480, with provisions that copies of any final or abandoned underground mine map on file with DMM could be made available to any interested party. Prior to that, Kentucky law restricted access to the maps to only affected landowners and mine operators. Although anyone could look at the maps, no one was allowed to make a copy. Under the Kentucky Underground Mine Map Initiative, an interagency group of state and federal agencies, including DSMRE, DMM, and the Kentucky Revenue Cabinet, is (1) working together to identify all mine maps that can now be made available to the public, (2) compiling these

maps into a data base, and (3) making this GIS system available to any interested party through an internet-based system. LFO has been working with the state on both technical and legal issues involved in this process.

DSMRE's Information Support Branch has developed a GIS data base, which can be accessed via the Internet. The data base can be accessed from the DSMRE homepage at <http://kydsmre.nr.state.ky.us>. The GIS has over 2,000 historical mylar overlays now available as geo-referenced digital images showing the extent of permit boundaries by topographic quadrangle. The system also has over 1,200 mine and reclamation plan maps available as digital images, with over 700 geo-referenced. Other GIS data available include water-sampling data, permit locations, permit boundaries, water monitoring wells, and mine shafts.

DSMRE continues its efforts on the electronic permitting initiative. Electronic workflow processing has been implemented throughout the Technical Review Section and is being utilized to monitor both electronic and hard copy submittals.

DSMRE has implemented its initiative for improved technological enhancements in the Division of Field Services. Field inspectors have portable computers and are using the electronic mine inspection report. The inspectors have also been supplied with digital cameras. Efforts continue to complete an electronic (paperless) document management system for inspection and enforcement. The implementation of the system began early in 2003.

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

- Kentucky Bond Pool Fund

By letter dated May 22, 2003, Kentucky submitted to OSM a proposed program amendment regarding the Bond Pool Fund. Kentucky submitted a portion of House Bill 269, the executive branch budget bill promulgated by the 2003 Kentucky General Assembly. Specifically, Kentucky proposes to transfer \$3 million dollars from the Bond Pool Fund established at KRS 350.700 to the Commonwealth's General Fund for the 2002-2003 FY. OSM is processing the proposed program amendment.

- 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 might 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 (PHC)

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 are ongoing. The study should be completed during EY 2004. DSMRE is making progress in identifying and solving the hydrology issues during the permit review.

- 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.

On September 13, 2002, the Secretary of NREPC remanded Minor Revision No. 2 to Nally & Hamilton Enterprises, Inc., Permit Number 867-5228 to the Division of Permits for further consideration with respect to the status of KY 3404 under Kentucky law. The Kentucky surface mining regulations require all roads used for coal haulage to be permitted as part of the affected area for surface coal mining and reclamation operations, though certain public roads may qualify for an exemption. Only those public roads that meet all three prongs of the exemption may be excluded from the affected area

required to be brought under permit. The affected area shall include every road used for the purposes of access to, or for hauling coal to or from, surface coal mining and reclamation operations, unless the road:

- a) Was designated as a public road pursuant to the laws of the jurisdiction in which it is located;
- b) Is maintained with public funds and constructed in a manner similar to other public roads of the same classification within the jurisdiction; and
- c) There is substantial (more than incidental) public use.

The Secretary, in his Order (entered September 13, 2002) in the case of *Rebecca Boggs v. Natural Resources and Environmental Protection Cabinet (NREPC)*, File No. PDH-25110-039, determined that the Division of Permits should use the standards established in the case of *Addington Enterprises, Inc. v. Natural Resources and Environmental Protection Cabinet (NREPC)*, File No. GAH-24015-039 (Final Order entered December 29, 1998), in interpreting the controlling exemption language of the regulation. In *Addington Enterprises, Inc. v. Natural Resources and Environmental Protection Cabinet (NREPC)*, the Secretary determined that the proper interpretation of the exemption language is to conduct a comparative analysis for prongs two and three of the degree of public maintenance, use and impact, relative to the degree of coal related maintenance, use and impact; as opposed to focusing solely on the degree of public use and public maintenance.

For a road not to be considered an affected area of a coal operation, certain qualifications for an exemption must be met. The Division of Permits determined, applying the standard required by the Secretary's September 13, 2002, Order in *Rebecca Boggs v. Natural Resources and Environmental Protection Cabinet (NREPC)*, that KY 3404 is a public road exempt from the definition of an affected area and is not required to be brought under permit. The petitioner, Rebecca Boggs, appealed the Division of Permits' determination. An Administrative Hearing on the matter is scheduled for November 2003.

This case has helped clarify Kentucky's position on the "affected area" definition. LFO and DSMRE continue to discuss this issue 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 to allow completion of reclamation by the state RA, 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. On August 27, 2001, Kentucky's Department of Insurance suspended Frontier Insurance Company's (Frontier) Certificate of Authority to transact business in the state. At that time, there were 41 coal companies involving 468 surface coal mining permits in Kentucky with Frontier performance bonds. Total bond liability for those permits was \$296,442,949. This represented approximately 35 percent of the total outstanding bond liability in Kentucky at that time.

At the beginning of the EY, Kentucky reported that the total outstanding bond liability with Frontier bonds was \$45,286,948, involving five companies with 84 permits. Three of the five remaining companies are in bankruptcy proceedings. On one of these companies, Kentucky was enjoined by the U.S. Bankruptcy Court for taking any action on the company to enforce the bonding requirements with regard to the Frontier bond. The total outstanding Frontier bond liability for this company is \$25,612,049 and involves 56 permits. On the remaining two companies, Kentucky reports that one company is in the process of replacing its Frontier bonds. Kentucky has issued a Cessation Order (CO) to the other company for failing to replace its Frontier bonds. During the EY, some of the companies were able to replace their Frontier bonds or receive Phase III bond releases on other permits. At the end of the EY, Kentucky reports that the total outstanding bond liability with Frontier bonds is \$42,968,248 and involves five companies with 80 permits.

Bond availability and increased costs to obtain bonds are major issues for the coal mining interests in Kentucky. The tightening of criteria for issuance of surety bonds to mining companies and the perceived reduction in the number of insurance companies willing to write reclamation bond coverage to mining companies are two of the causes.

- 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 the MCCC under Nationwide Permit (NWP) 21. Under Section 404 of the Clean Water Act, 33 U.S.C. Section 1344, the 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. 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.

On May 8, 2002, U.S. District Judge Charles H. Haden II ruled to limit valleyfills. The ruling applied to all valleyfills within the jurisdiction of the COE's Huntington District. On May 13, 2002, the government asked for a stay; and on June 17, 2002, the stay was denied.

On August 14, 2002, the government appealed to the 4th Circuit Court of Appeals in Richmond, Virginia. Legal briefs were filed from August through October 2002. Oral arguments were pending as of the end of EY 2002.

On January 29, 2003, the United States Court of Appeals for the Fourth Circuit vacated the district court's injunction and orders of May 8 and June 17, 2002. The district court had ruled that the COE could only approve valleyfills in connection with surface coal mining operations if the fill had some beneficial primary purpose. Therefore, the court had concluded that the COE's approval of waste disposal as fill material was

ultra vires and beyond the COE's authority. The court had also found that SMCRA's approximate original contour provisions and OSM's stream buffer zone rule were consistent with the Clean Water Act, likewise barring valleyfills used for waste disposal. On the basis of these conclusions, the district court had issued a purely prospective injunction, prohibiting the COE from issuing new permits (within its Huntington District) that have no primary purpose or use but the disposal of waste. The Fourth Circuit reversed, holding that "to create valleyfills with the spoil of mountaintop coal mining is not ultra vires under the Clean Water Act and that the injunction issued by the district court was overbroad." The Fourth Circuit also found that SMCRA "does not prohibit the discharge of surface coal mining excess spoil in waters of the United States, regardless of whether the fill has a beneficial primary purpose."

- Fill Construction Practices

Following several meetings to build consensus with the coal industry and environmental community, DSMRE developed RAM Number 135, issued September 10, 2002. The purpose of the RAM was to implement revised standards for the design and construction of durable rock fills. On December 11, 2002, DSMRE issued Directive Number 36 to revise and clarify existing inspection and enforcement policies on excess disposal fills. OSM and DSMRE will initiate a joint special study in EY 2004 to review implementation of these policies.

- Unauthorized Fills

The COE continues working with DSMRE and OSM to identify mining operations with unauthorized fills. No placement of fill material into waters of the U.S. can occur without prior authorization from the COE.

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 Abandoned Mine Lands (AML) emergency complaints referred to them by OSM. During the EY, Kentucky completed 19 high priority AML projects and submitted 31 new projects for authorization to proceed. Ten of the projects will provide

safe domestic water supplies for 226 residences at an estimated cost of \$2.3 million.

The 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 a 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 forfeitures using forfeited reclamation bonds. DAML continues to improve its effort in reclaiming forfeited permits. During EY 2003, DAML issued two new group contracts containing eight permits with a total of 66.5 acres. In addition, DAML continued reclamation activities on seven group contracts containing 28 permits with 169.5 acres from the previous EY. DAML completed reclamation on nine group contracts containing 28 permits with 173 acres and three small purchase contracts consisting of three permits with 1.5 acres. At the end of EY 2003, three group contracts containing ten permits with 115.5 acres were ongoing. Information in Table 7 shows that DAML reclaimed a total of 380.28 acres on permanent program sites during the EY.

During this EY, OSM investigated 325 emergency complaints reported from abandoned mines. OSM referred 155 complaints to the state when the site conditions did not meet federal emergency criteria during the preliminary investigation. OSM evaluated 170 complaints for declaration as federal emergency projects. Seventy-five of these complaints were declared federal emergency projects. Thirty-seven complaints are still under OSM review as of the writing of this report. The remaining 58 did not meet federal emergency criteria and were referred to the state for consideration under its non-emergency AML program.

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 AML 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

Kentucky's program for protecting the environment and public from off-site impacts was evaluated by collecting and analyzing known off-site damage resulting from the 2,043 surface and underground coal mines in Kentucky. DSMRE supplied LFO with Inspector's Violation Statements for Non-Compliances (NC) and CO's that contained off-site impacts. The Inspector's Violation Statements included all violations with off-site damage written for the period October 1, 2002, through June 30, 2003. LFO conducted the following:

- Developed an off-site damage data base
- Screened the Inspector's Violation Statements for off-site impacts
- Verified and input the collected off-site impacts
- Analyzed the data

During the EY, DSMRE issued 525 NC's. These NC's cited 927 performance standards. The most frequently cited violation type was general permit provisions and then bond replacement (Frontier bonding issue). A breakdown by performance standards based on the 50 state category types is presented below:

Percentage of Total Performance Standards Cited in EY 2003						
General Provision and/or Other	Sedi-ment	Backfilling & Grading, & Contemporaneous Reclamation	Water Quality	Effluent Limits	Water Monitor-ing	Remain-ing 43 Cate-gories
23.9	12.5	10.1	6.2	6.2	6.1	35.0

A total of 74 CO's was issued by DSMRE (55 Failure-to-Abate CO's, and 19 Imminent Harm CO's).

For this EY, Kentucky provided 63 NC's and seven CO's that contained off-site impacts. The 70 enforcement actions resulted in 102 performance standard violations. OSM determined that there were 111 measurable off-site impacts for the 102 performance standard violations. The determination of

off-site impacts was based on DSMRE's documentation and the OSM reviewer's interpretation of the enforcement language using any inspection reports associated with the enforcement action. The review of the Inspector's Violation Statements prepared for the penalty assessment was the primary resource document.

The 70 enforcement actions with off-site impacts involved 57 permits. This is approximately 2.8 percent of the permits in Kentucky. The remaining 97.2 percent of the permits were free of off-site impacts.

Those NC's identified with off-site impacts were analyzed for the following criteria:

- type of incident
- resource affected
- degree of impact

Of the 102 performance standard violations with 111 measurable off-site impacts, approximately 61 percent was surface water. The next major types of off-site impact were public roadway and other (21 percent). The third type of off-site impact was encroachment into prohibited areas (10 percent).

From the data collected, the total impacts assessed from coal mining operations for the EY included 55.5 miles of streams, 64.4 acres of land, three wells, and one home. The findings for off-site impacts indicate that approximately 48 percent of the measured incidents involved land and 48 percent involved water. Also, 82 percent of the incidents were minor, ten percent were major, and eight percent were moderate impact. The majority of impacts were minor. However, as indicated, the largest impacts occurred within a few permits, as discussed below.

OSM and DSMRE identified "flyrock" as a major off-site impact in Kentucky. During the last EY, eight flyrock incidences occurred. During this EY, one flyrock case occurred. On November 20, 2002, flyrock from a surface coal mine damaged a house and an outbuilding. The blasting was being conducted to create a safety bench. The flyrock, a piece of shale, flew over 1,000 feet. The rock landed on a hillside above a house and broke into pieces. One piece went through the roof of the house and landed in the attic. Another piece hit an outbuilding. The residents were not home at the time of the incident. The reduction in flyrock cases from the previous EY is attributed to the aggressive enforcement by DSMRE. DSMRE

established a special group of blasting inspectors to increase inspections and reduce impacts caused by blasting. Also, DSMRE increased blaster and inspector training. Likewise, DSMRE, the Kentucky Coal Association, and the Coal Operators and Associates, Inc., held a one-day training course for industry blasters.

On March 8, 2003, a coal company released thousands of gallons slurry from a coal waste impoundment into Big Creek, a tributary of the Tug Fork of the Big Sandy River. The estimates for the spill volume range from 10,000 to 100,000 gallons of slurry. Even though the impoundment reached its approved capacity, the company continued to place coarse refuse on the top of the embankment and into the pool area. The volume of discharge exceeded the capacity of the downstream sedimentation structure, allowing a thick slurry mix to enter the receiving stream. Approximately ten miles of stream was impacted. Enforcement was taken and the company was required to clean up the damaged stream. OSM and DSMRE are conducting extensive studies to eliminate slurry off-site impacts.

Since May 19, 2003, the coal field counties in eastern Kentucky have experienced record rainfalls. Continuous rainfall has saturated the ground and increased the amounts of water flowing on active permits. The drainage in some cases has caused severe landslides that caused major off-site impacts. Most of the cases have involved abandoned mine lands. However, in Pike County, Kentucky, a slide from an active underground coal mine blocked a county road and stream channel for several hours. Access to an estimated dozen residences, involving 30 to 40 people, was blocked until the slide material was removed from the county road. The electrical service was temporarily interrupted. The company was required to stabilize the slide area, remove debris from the stream, and develop a remediation plan to prevent future problems.

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 meet 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 10,163.86 acres for Phase I reclamation, 6,066.17 acres for Phase II reclamation, and 8,651.57 acres for Phase III reclamation. OSM's review of these minesites through 49 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 2003. The AML program received \$16,464,521, which is 100 percent of the total program cost. SOAP, which is also 100 percent federally funded, received \$403,631. The A&E grant, which funds the regulatory program, was for \$12,993,691. The regulatory program is 50 percent federally funded, except for the \$972,889 that Kentucky receives to administer the Federal Lands program. The Federal Lands program is 100 percent federally funded and is included in the A&E grant.

Blasting Complaint Inspection Protocol. DSMRE and LFO jointly developed the protocol for use by the DSMRE inspectors. The protocol established the blasting complaint inspection procedures. It also established the documentation necessary to resolve the complaints. LFO will also use the protocol to evaluate DSMRE's responses to Ten-Day Notices (TDN) related to blasting complaints.

Blasting Inspector Training. DSMRE and LFO jointly provided training to the DSMRE blasting inspectors. The training was provided during three different sessions. The training related to the inspection of blasting operations and complaints.

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 2003, LFO completed 286 oversight-related inspections. Of this total, 140 were random sample inspections, and 24 were Phase III bond release inspections conducted jointly with DSMRE personnel. A total of 54 field inspections and two permit reviews resulted from special studies outlined in the EY 2003 Performance Agreement. The remaining 66 inspections were follow-up inspections completed by LFO resulting from the issuance of TDN's.

LFO issued 28 TDN's during the EY. These 28 TDN's contained 41 alleged violations. All TDN's were the result of citizen complaints. At the close of the EY, 23 TDN's were pending the Field Office Director's (FOD) decision on the appropriateness of DSMRE's response. Ten of these pending TDN's were from previous EY's. During the EY, the FOD resolved 41 TDN's. All the TDN's concerned citizen complaints. Twenty-six of these TDN's were issued in previous EY's. All TDN's were judged satisfactorily resolved.

During the EY, one citizen requested that the Appalachian Regional Coordinating Center's (ARCC) Regional Director (RD) informally review an FOD decision on their citizen complaint. The complaint concerned damage to a retaining wall that the citizen believed was caused by water drainage from a nearby surface mine. The RD reversed the FOD's decision that DSMRE had shown good cause for not taking action and ordered a federal inspection. The results of that inspection are still pending a technical evaluation.

LFO conducted 60 oversight inspections on state AMLR projects in accordance with the EY 2003 Performance Agreement as follows:

- 4 pre-authorization inspections
- 10 pre-construction inspections
- 36 active construction inspections
- 9 final construction inspections
- 1 post-construction inspection

0 citizen complaint inspections concerning a state AML project

OSM identified three concerns during inspections of three projects. All of the concerns were satisfactorily resolved with the state. All were site-specific and construction-oriented in nature, with no programmatic concerns identified.

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:

- Reforestation - Technology Transfer Initiatives
- Topsoil Substitution
- Slurry Impoundments - Phase II-Moderate/High Breakthrough Potential
- Joint Blasting Review
- Slurry Impoundments-Phase III (Regional Oversight Team)
- Preparation Plant-Follow-up to EY 1997 Special Study
- PHC/Cumulative Hydrologic Impact Assessment--Post-Mortem of Nine Underground Mines
- Fill Inventory (Permits issued by DSMRE in Calendar Year [CY] 2003)

The following oversight studies were completed during the EY.

A. Phase I Bond Release Inspections

This study includes 28 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 that Kentucky is meeting its requirements for Phase I bond release on permanent program permits.

B. Phase III Bond Release Inspections

This study reviewed 21 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.

C. Fill Inventory

OSM conducted 246 file reviews on permitting actions issued by the state in eastern Kentucky for CY 2002. The file review collected pertinent fill and watershed information on 336 proposed or existing excess spoil fills. See Appendix E for the review findings.

D. Acid Mine Drainage

On June 5, 2002, Kentucky issued a revised AMD policy that superceded its original AMD policy issued December 11, 1997. The revised AMD policy included new definitions and terminology. The revised policy still includes procedures on inspection, permitting, bonding, and other program areas. Since the issuance of its original AMD policy, Kentucky has made significant progress in addressing AMD issues. 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 124 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 74 minesites on the Active Inventory. Both inventories are updated as new information becomes available.

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 14 minesites identified on the active AMD inventory as long-term treatment sites.

During the EY, LFO conducted inspections on the 14 minesites identified as long-term treatment sites. The purpose of these inspections was to take water samples of the AMD discharge during high and low flow periods. The results of the sampling efforts were incorporated into OSM's Regional AMD data base.

During the EY, LFO conducted two 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 unit was used to locate each site. OSM found that each minesite was properly removed from the Active Inventory.

E. 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, LFO conducted 140 random comprehensive inspections for a general assessment of Kentucky's program. The random samples were selected from the list of active and Phase I bond release permits on both surface and underground coal mining operations in Kentucky. The purpose of these inspections was to evaluate the degree of industry compliance with the approved state program.

OSM found that 113 of the 140 (81 percent) minesites in Kentucky were in full compliance with all performance standard categories. On the other 27 sites, 47 violations were observed. The performance standards most often in non-compliance were hydrologic balance, backfilling and grading, and permit administration. OSM inspectors evaluated the seriousness of violations on random complete inspections. The data for the 47 violations shows that 77 percent of all the violations did not have an off-site impact, and 23 percent extend outside the permit area. In addition, 27 percent of the violations were minor, 64 percent had a moderate degree of impact, and nine percent had a major degree of impact. For all 47 violations identified during complete inspections, the state took appropriate action in all cases.

F. Contemporaneous Reclamation

This study included a file review of 75 permits and a field review of 25 permits. The study found that DSMRE has effective methods in place for permitting and enforcement of contemporaneous reclamation variances.

The study also found that older permits, which contained vague or generic descriptions for the proposed contemporaneous reclamation variance, had hindered enforcement effectiveness. DSMRE has strengthened its examination of this variance in the last several years with the development of a detailed Permit

Reviewer's Manual. The manual addresses the justification and achievability of the variance by requiring the permittee to submit detailed information regarding the mining method, mining sequence, and equipment. This detailed and enforceable plan has enabled the field inspector to identify deviations from the approved plan and take appropriate enforcement measures. DSMRE will update those older permits by subjecting them to current procedures at the mid-term reviews.

In a letter dated July 15, 2003, DSMRE agreed to continue updating permit review information regarding contemporaneous reclamation variance for active coal mines. Also, DSMRE will continue monitoring the contemporaneous reclamation variance during field inspections.

G. Pattern of Violations (POV)

This study found that POV reviews are conducted in accordance with the approved regulatory program and are effective in encouraging compliance with the surface mining regulations. The reviews are a routine part of the Cabinet's enforcement process. The Cabinet has eliminated the backlog of pending POV cases. POV reviews are being conducted on a timely basis.

H. Longwall Mining

Only active longwall mines were included in this study. The items reviewed for each mine included:

- PHC
- Subsidence control plans

There were four active longwall mines in Kentucky at the time of this study: Sidney Coal Company, Inc., Shamrock Coal Company, Peabody Coal Company, and Lodestar Energy, Inc. The mining permits for these mines were found to include a description of the PHC, subsidence control plans, and measures to mitigate and/or minimize subsidence damage caused by longwall mining.

The permitting procedures used by DSMRE to determine the impacts of longwall mining are thorough and adequate.

I. Slurry Impoundments - Phase III

ARCC, under its Oversight Guidance Document, is reviewing the states' actions concerning the prevention of impoundment

breakthroughs into underground mines. Under this review, OSM examines the states' procedures to evaluate breakthrough potential and their implementation of the procedures. At selected permits, the review includes a technical examination of breakthrough potential and an assessment of the states' actions to prevent breakthrough. During the EY, OSM completed two of these reviews in Kentucky. During these reviews, OSM inspected site conditions and evaluated permit information.

The Rob Fork Impoundment (AEP, Kentucky Coal, LLC) was selected because of the high potential for breakthrough due to the close proximity of underground mines beneath and adjacent to the impoundment. OSM found that DSMRE thoroughly evaluated breakthrough potential and required the necessary breakthrough prevention measures.

The Grants Branch Impoundment (Stone Mining Company) was selected because of dam safety and breakthrough allegations made by an engineer in the Kentucky Division of Waste Management. In contrast to the Rob Fork and other high priority impoundments, the underground mine at Grants Branch is located at least 185 feet beneath the impoundment. DSMRE, MSHA, and OSM individually addressed the allegations. Further, OSM committed to a thorough review by the Regional Impoundment Technical Team. The team, after an extensive independent review, found that the allegations were without merit and were not supported by appropriate technical analysis. The team's technical analysis did not identify dam stability problems, and the team determined that there was not a potential for breakthrough.

J. Inspection Frequency

DSMRE reported Kentucky's inspection frequency at the end of the EY. The inspection 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 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 for these three quarters of a year. Due to a change in OSM's EY's, inspection frequency is based upon three quarters of a year. DSMRE reported the following number of inspections.

Coal Mines and Facilities	Number of Complete Inspections	Number of Partial Inspections
Active	5,734	11,285
Inactive	289	143
Abandoned	49	42
TOTAL	6,072	11,470

Inspectable Unit Information

- Total Number of Permits Requiring Inspections 2,043
- Total Number of Permits Meeting Frequency 1,981
- Percentage of Permits Meeting Frequency 97

From the information provided, Kentucky's inspectors conducted 17,542 inspections and met inspection frequency on 97 percent of the inspectable units.

Inspection frequency has not changed since the last EY. In 2002, OSM reported that DSMRE inspectors met frequency on 96.7 percent of the inspectable units. DSMRE continues a high commitment to meet its required inspection frequency.

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