

OFFICE OF SURFACE MINING

Seventeenth Annual Evaluation Summary Report
for the
Regulatory and Abandoned Mine Land Reclamation Programs
Administered by the Commonwealth

of

KENTUCKY

for

Evaluation Year 1999
(October 1, 1998 to September 30, 1999)

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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 Kentucky program and the effectiveness of the Kentucky program in meeting the applicable purposes of SMCRA as specified in Section 102. This report covers the period of October 1, 1998 to September 30, 1999. 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 three 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 this Evaluation Year (EY), OSM and the States developed 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:

ACSI	Appalachian Clean Streams Initiative
AMD	Acid Mine Drainage
A&E	Administration and Enforcement
AML	Abandoned Mine Land
AMLIS	Abandoned Mine Land Inventory System
AMLR	Abandoned Mine Land Reclamation
CO	Cessation Order
DAML	Division of Abandoned Mine Lands
DSMRE	Department for Surface Mining Reclamation and Enforcement
EPA	Environmental Protection Agency
EY	Evaluation Year

FY	Fiscal Year
GIS	Geographic Information System
KAR	Kentucky Administrative Regulation
KSNPC	Kentucky State Nature Preserves Commission
LFO	Lexington Field Office
MOA	Memorandum of Agreement
NC	Non-Compliance
NOV	Notice of Violation
NREPC	Natural Resources and Environmental Protection Cabinet
OSM	Office of Surface Mining
SCP	Subsidence Control Plans
SOAP	Small Operator Assistance Program
SMCRA	Surface Mining Control and Reclamation Act of 1977
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, Vicki Pettus, 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 Administration and Enforcement (A&E) Grant for 1999 is \$12,515,093 (Federal funds) and supports 400 positions. OSM funds 83 positions in DAML with a grant of \$16,330,076 for 1999. The Small Operator Assistance Program (SOAP) was awarded grant funds of \$1,566,163 for 1999. It's estimated that 60 projects will be received under SOAP in 1999.

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, Earl Wilson, 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 Coal Field is part of the Appalachian Coal Province where underground, contour, and mountaintop removal mining occurs. The Western Kentucky Coal Field is part of the Interior Coal Province (Illinois Coal Basin) where area and underground mining occurs. The eight most western counties in Kentucky are underlain by the Jackson Purchase Lignite Coal Fields. 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 have accounted for approximately one-half 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. However, most underground mines actually disturbed very little surface acreage. A review of underground mines in Kentucky indicates there was an overall increase in size during the last four EYs as follows:

Underground Mines Permitted Acreage	EY 1996	EY 1997	EY 1998	EY 1999
Less than 20 acres	2%	2%	2%	2%
20-99 acres	12%	12%	10%	8%
100 acres or more	86%	86%	88%	90%
Underground Mine Surface Disturbance Acreage	EY 1996	EY 1997	EY 1998	EY 1999
Less than 20 acres	78%	77%	74%	72%
20-99 acres	18%	18%	21%	22%
100 acres or more	4%	5%	5%	6%

Surface mines and associated facilities (haul roads and preparation plants, etc.) account for the other half of acreage permitted in the State. A review of the permitted acreage for surface mines and associated facilities indicates there was an overall increase in size during the last four EYs as follows:

Permitted Acreage	EY 1996	EY 1997	EY 1998	EY 1999
Less than 20 acres	18%	17%	16%	14%
20-99 acres	31%	28%	28%	26%
100 acres or more	51%	55%	56%	60%

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 1999. Individual "Oversight Performance Agreements" were developed for the Abandoned Mine Land (AML) and Regulatory programs. The AML Oversight Performance Agreement was finalized and signed by DSMRE on November 4, 1998. The Regulatory Oversight Performance Agreement was finalized and signed by DSMRE on December 21, 1998.

LFO maintains a mailing list of concerned citizens, industry groups, environmental groups, and State agencies. The signed Oversight Performance Agreement was mailed to all parties on January 8, 1999. No comments were received that required modification of the final documents. During the EY, comments were received from the environmental community requesting additional oversight of blasting issues. In response to these concerns, several blasting related studies are planned during EY 2000.

During the EY, LFO released a draft mountaintop operations report entitled "An Evaluation of Approximate Original Contour and Post-Mining Land Use in Kentucky." LFO requested comments from all interested parties covering mountaintop mining operations in Eastern Kentucky. LFO is currently reviewing the comments received and developing an action plan with DSMRE to implement the recommendations in the report.

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 has been on the books, coal field 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

A. Regulatory

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:

On October 2, 1998, OSM finalized a cooperative agreement with the Commonwealth of Kentucky for the regulation and reclamation of surface and underground coal mining operations on Federal lands in the State. The agreement became effective on November 2, 1998.

The agreement provides Kentucky full regulatory and reclamation authority over coal mining and reclamation operations on Federal lands within the State, as provided for in SMCRA. The agreement designates the Natural Resources and Environmental Protection Cabinet (NREPC) as the authority to administer the program, to include permit processing and review, 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. Kentucky joins 12 other States that have entered into similar agreements with the Interior Department (Alabama, Colorado, Illinois, Montana, New Mexico, North Dakota, Ohio, Oklahoma, Utah, Virginia, West Virginia, and Wyoming).

On December 18, 1998, Earl R. Wilson, Chairperson for the Kentuckians for the Commonwealth, filed a lands unsuitable petition to designate a portion of Black Mountain in Harlan and Letcher Counties as unsuitable for surface mining. The petition was submitted to DSMRE, which processed the petition. The designation requested was for the area above the 3,000-foot elevation contour on Black Mountain in Harlan and Letcher Counties. This area represents approximately 12,000 acres of the mountain. The petition alleged that the area qualified as a "fragile land" based on the biological integrity and potential adverse effect on aquatic resources in the watersheds draining Black Mountain, as well as the visual impacts of mining. The petition presents arguments and evidence to support the designation as a historic land that would be adversely affected by mining. Also, the petition proposes designation of the area as a natural hazard land.

During the week of April 18, 1999, Governor Paul Patton intervened in the negotiations for a settlement between the landowners, industry, environmental community, and the citizens of Kentucky. He helped draft an agreement to limit mining and timbering on Black Mountain. Implementation of this agreement depends upon locating sufficient public and private funds to purchase mineral and timber rights. NREPC is currently working to establish the value of the property rights to be purchased and to find possible funding sources.

The proposed agreement on the 4,139-foot mountain will prohibit mining and timber cutting above 3,800 feet. An additional 12,000 acres, comprising most of the land between 3,200 feet and 3,800 feet, will be off-limits to surface mining. A timber conservation area above 3,000 feet will allow logging under closely controlled conditions. Underground mining will be allowed to continue within Black Mountain.

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

DSMRE signed a partnership agreement with OSM, the Daniel Boone National Forest, and the Kentucky Council of Trout Unlimited. The partnership agreement expresses the intention of these parties 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. DSMRE has developed a plan for an initial project on Rock Creek. The impacts of this project have been reviewed by the U.S. Forest Service in compliance with the National Environmental Protection Act.

Two other ACSI projects were on-going in Western Kentucky during the EY. East Diamond Tipple is being reclaimed as a joint ACSI, AML, and Remining project. Pleasant View Mine Site Number 2 reclaimed 250 acres, including Ketchup Lake, a 30-acre acid mine water pit.

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, as well as the Division of Field Services' inspection staff. LFO, working jointly with DSMRE, has developed a basic Geographic Information System (GIS) map of the inventoried sites.

The Kentucky Remining Team is continuing its efforts of promoting remining, evaluating potential remining sites, reducing or eliminating impediments to remining, and

creating new incentives. The team members represent two Kentucky agencies, two Federal agencies, and the environmental community. The team has been working with several coal companies in both the Eastern and Western coal fields to encourage site-specific reining projects. The team is also continuing to work on reining options and incentives that might be used to encourage more participation. The reining project to reclaim the old East Diamond Tipple, near Madisonville, Kentucky, is actively removing coal and burying pre-SMCRA coal waste. This project will clean up 150 acres of land covered with three million cubic yards of pre-law coal refuse and slurry.

In 1997, NREPC's Secretary James Bickford identified the Dollar Branch site as one of the top five issues to be resolved. The Dollar Branch site was a 40-acre abandoned coal washing/refuse disposal area in Harlan County. The site is just upstream from the Pine Mountain Settlement School, an environmental education center listed on the National Register of Historic Sites. Reclamation on the Dollar Branch site was completed during this EY, in accordance with a complex, multi-party agreement.

DSMRE continues to take an active role in two additional National OSM initiatives. DSMRE has members on the National Blasting Work Group and the Underground Mine Outcrop Barrier Work Group. DSMRE's participation in both initiatives 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 reining and AMD initiatives. DSMRE and LFO are also active participants on the Environmental Impact Statement Team dealing with mountaintop mining.

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 plan requires intensive work by employees within DSMRE, as well as contributions from representatives of the coal industry and environmental communities. DSMRE has started a pilot program for submitting permits electronically. They have received and are reviewing two technical permit applications during the EY. DSMRE also converted the Surface Mining Information System from a mainframe system to a personal, computer-based server.

OSM initiated the annual Excellence in Surface Coal Mining and Reclamation Awards in 1986 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, Jamieson Construction Company received an award for its reclamation efforts, which helped to preserve Rockcastle River, one of the last "wild" rivers remaining in Kentucky.

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

Written Findings

There is no official written findings document for major or minor revisions, transfers, sales, or assignments. The revision file in the Division of Permits has sufficient documentation supporting their decisions. However, these documents are scattered throughout the revision file. The Division of Permits is inconsistent with the written findings regulations in that the original permits require an official findings document. However, those same regulations require informal written findings for revision and successor permits.

DSMRE has indicated a willingness to work with LFO to expand their written findings documentation. As of the end of the evaluation period, two meetings have been held. Permit findings has been identified as a National review topic for EY 2000.

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 being proposed by Virginia. DSMRE further advised LFO of its intention to submit draft changes to LFO for informal review. The changes would include backfilling and grading, hollowfills, and disposing of refuse in both the surface and underground chapters of 405 Kentucky Administrative Regulation (KAR). Kentucky projected that a draft would be available around April 1, 1994. No further 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, the width of outcrop barriers for underground mines, and ground and surface water monitoring.

Joint special studies continued on these issues during EY 1997. The studies were completed in EY 1999 and are

discussed in Section VII of this report. Additional special studies are planned in EY 2000. DSMRE is making progress in identifying and solving the hydrology issues.

Roads

The permitting of public roads has always been a difficult issue in Kentucky. The Federal requirements for permitting 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.

Mountaintop Mining

During this EY, LFO completed a draft oversight report entitled "An Evaluation of Approximate Original Contour and Post-Mining Land Use in Kentucky." Numerous comments were received on the draft report. The report will be finalized and discussed in the EY 2000 Annual Report.

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 21 AML projects (priorities one and two). During the EY, Kentucky submitted 25 new projects for authorization to proceed. Three of the projects will provide a safe domestic water supply for 1,100 residences and provide a transmission line to an adjacent community, at an estimated cost of \$3,096,000.

The current management of DAML continues to implement significant improvements in their program. Their 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 them to electronically input AML problem data. The State has been directly updating the AMLIS since the fall of 1995.

DAML also administers the reclamation of Title V permits using forfeited reclamation bonds. DAML continues to improve its efforts in reclaiming forfeited permits. During the EY, DAML issued 16 new group contracts containing 100 forfeited permits with 1,807.12 acres. In addition, DAML continued reclamation activities on five group contracts

containing 49 forfeited permits with 996.73 acres from the previous EY. DAML completed reclamation on 15 group contracts containing 95 permits with 1,955.59 acres. At the end of the EY, 13 group contracts containing 71 permits with 1,056 acres were still ongoing.

During this EY, OSM investigated 119 emergency complaints. OSM referred 64 complaints to the State when the site conditions did not meet Federal emergency criteria. OSM evaluated 55 complaints for declaration as Federal emergency projects. OSM declared 27 of these complaints as 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; four were determined not to be related to coal mining; and two were declared not to be eligible lands or waters.

Overall, the Kentucky program is effectively administered. DSMRE maintains a strong commitment to protect the environment and citizens of the coal fields while regulating and encouraging a viable coal industry. OSM expects to maintain an excellent working relationship with DSMRE and looks forward to a continued 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 601 Non-Compliances (NC). These NCs cited 951 performance standards. The most frequently cited violation was general provisions/other. A breakdown of type of performance standards based on 50 category types cited by percent follows:

Percentage of Total Performance Standards Cited in EY 1999							
General Provision/Other	Sediment Control	Back-filling and Grading Contemp Recl	Water Monitor	Access Road	Water Quality	Blasting	Remaining 43 Categories
23.9	11.1	10.6	8.9	6.3	5.2	4.3	3.2

A total of 77 Cessation Orders (CO) was issued by DSMRE, (68 Failure-to-Abate COs, seven imminent harm COs, and two illegal mining COs).

For this EY, Kentucky issued 109 NCs and nine COs that contained off-site impacts. The 118 enforcement actions resulted in 122 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.

The 118 enforcement actions involved 110 permits with off-site impacts. This represents approximately four and one-half percent of the minesites in Kentucky. One major incident occurred in Kentucky during EY 99. On February 15, 1999, a coal mine blasting incident occurred near the Phelps community in Pike County, Kentucky. The incident resulted in the death of a 55-year old man. The Kentucky State Police, DSMRE, Department of Mines and Minerals, OSM, and the U.S. Mine Safety and Health Administration investigated the incident.

Of the 122 violations with off-site impacts, approximately 37 percent was encroachment into prohibited areas. The next major type of off-site impact was surface water (30 percent). The third type of off-site impact was land instability (16 percent).

From the data collected, the total impacts assessed from coal mining operations for the EY included 8.7 miles of streams, 178 acres of land, eight wells, and three 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 63 percent of the measured incidents involved land and 32 percent involved water. Also, 76 percent of the incidents were minor and 14 percent moderate impact.

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, top-soiled, seeded, mulched, drainage-controlled, and a planting report submitted. Phase II requires the reclaimed area 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 be contributing suspended solids to stream flow or runoff outside the permit area. Phase III requires that the reclaimed area must have successfully met all surface coal mining and reclamation standards in accordance with the approved reclamation plan, that the reclaimed land is capable of supporting the approved post-mining land use requirements, and that the applicable liability period has expired.

In Table 5, Annual State Mining and Reclamation Results, Kentucky reported that they granted bond release on 10,501.45 acres for Phase I reclamation, 7,719.22 acres for Phase II reclamation, and 19,176.9 acres for Phase III reclamation. OSM's review of these minesites through 109 joint inspections on Phase I and Phase III bond releases found that the State is meeting the requirements of their bond release program on permanent program permits.

VI. OSM Assistance

Table 9, Funds Granted to Kentucky by OSM, identifies Federal funds awarded during FY 1999. The AML program received \$16,330,076, which is 100 percent of the total program cost. SOAP, which is also 100 percent Federally-funded, received \$1,566,163. The A&E grant, which funds the Regulatory program, received \$12,515,093. The Regulatory program is 50 percent Federally-funded, except for the \$386,090 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.

OSM provided additional funding to DSMRE through a Cooperative Agreement. The Cooperative Agreement, funded for \$7,000, allowed DSMRE to copy the Federal Lands permits for its field staff.

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.

As reported in the Sixteenth Annual Report, OSM awarded \$57,000 for a GIS-Based Hollowfill Inventory Cooperative Agreement. This grant included \$17,000 from the U.S. Environmental Protection Agency (EPA). A GIS inventory of permitted excess spoil fills for the period 1982 through 1995 was created during this past EY. An additional grant of \$8,000 from EPA Region 4 has helped to expand the inventory to work on the excess spoil fills permitted since 1995.

VII. General Oversight Topic Reviews

During EY 1999, LFO completed 550 oversight-related inspections and 217 permit reviews. Of this total, 149 were random sample inspections and 80 were Phase III bond release inspections conducted jointly with DSMRE personnel.

A total of 112 field inspections and 217 permit reviews resulted from special studies outlined in the EY 1999 Performance Agreement. In addition, LFO completed 63 joint oversight inspections to assist DSMRE in implementing the Federal Lands Cooperative Agreement, which became effective on November 2, 1998. The remaining 146 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 46 TDNs during the EY. These 46 TDNs contained 74 potential performance standard violations. Forty (40) TDNs were a direct result of written citizen complaints, four (4) resulted from a follow-up inspection to a citizen complaint, and two (2) were the result of a complete random oversight inspection. As of the close of the EY, 23 TDNs were pending a decision on appropriateness.

One (1) oversight Federal enforcement action was taken during the EY. The case was the result of a citizen complaint alleging that a company was using an unpermitted access road. The company purported that the road in question was a public road not required to be permitted. OSM issued an imminent harm/danger CO. The company appealed the CO, but was denied temporary relief. The Administrative Law Judge's final decision was pending as of the end of the EY.

Five Federal Notices of Violation (NOV) were issued during the EY for failure to pay AML fees. Two Failure-to-Abate CO's were issued for failing to comply with the NOV. During the EY, OSM obtained a preliminary injunction to enforce a CO. The CO was issued in 1997 for mining without a permit.

LFO conducted 118 oversight inspections on State AMLR projects in accordance with the EY 1999 Oversight Performance Agreement as follows:

- 5 pre-authorization inspections
- 65 active construction inspections
- 21 final construction inspections
- 27 post-construction inspections

OSM identified a concern on nine of the AML construction inspections. All nine of the concerns were satisfactorily resolved with the State. All were primarily site-specific in nature, with no programmatic concerns identified.

Several special oversight studies were initiated, but were not completed due to the complex nature of the studies and/or the workload of the staff involved. The studies include Blasting Oversight, Temporary Cessation, Durable Rock Fill, and Sediment Pond Design Standards. These studies are ongoing and will be discussed in next year's annual report.

The draft report on "An Evaluation of Approximate Original Contour and Post-Mining Land Use in Kentucky" was released for public comment this EY. This report will be finalized and discussed in next year's annual report.

The following oversight studies were completed during the EY.

A. Phase I Bond Release Inspections

This was a study on 31 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 their requirements for Phase I Bond Release on permanent program permits.

B. Phase III Bond Release Inspections

This was a study on 78 Phase III Bond Release applications that was reviewed during the EY. OSM inspections on these Phase III Bond Release applications were conducted jointly with the Kentucky inspector and the bond release specialist. LFO reviewed three underground mines in Phase III Bond Release for blow-out potential. No problems were identified. OSM found that Kentucky is meeting their requirements for Phase III Bond Release on permanent program permits.

C. Inspection Frequency

For permitted coal minesites, 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 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	8,878	14,652
Inactive	739	427
Abandoned	82	98
TOTAL	9,699	15,177

Inspectable Unit Information

Total Number of Permits Requiring Inspections During this Period	2,481
Total Number of Permits Meeting Frequency	2,481
Percentage of Permits Meeting Frequency	100%

From the information provided, Kentucky's inspectors conducted 24,876 inspections and met inspection frequency on 100 percent of the inspectable units.

This evaluation indicates DSMRE's continuing commitment to meet the inspection frequency. This was the first EY since primacy was awarded in 1982 that DSMRE made 100 percent of the required inspections on every inspectable unit. This is a significant accomplishment due to the large number of inspectable units and inspection staff.

D. Random Sample

OSM historically completed oversight inspections on 430 random sample inspections during the EY. EY 1999 followed OSM's new oversight format moving from a very structured oversight approach to a more innovative approach, allowing fewer random sample inspections. The EY coincides with the Federal FY. During this EY, October 1, 1998 through September 30, 1999, LFO conducted 149 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 121 of the 149 (81 percent) minesites in Kentucky were in full compliance with all performance standard categories. On the other 28 sites, 80 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 149 random inspections shows the impact of 64 percent of all the violations did not have an off-site impact, and 36 percent extend outside the

permit area. In addition, 36 percent of the violations are minor, 52 percent have a moderate degree of impact, and 10 percent have a considerable degree of impact. In 79 of the 80 violations, the State took appropriate action, with one TDN pending.

E. Baseline Water Monitoring

This joint OSM and DSMRE study, initiated in EY 1997, evaluated the quality of hydrologic baseline data submitted by permittees during the permit application process. The study focused on the baseline surface and groundwater monitoring information presented in the permit application.

Field sampling and analysis were performed by OSM and a DSMRE Hydrogeologist.

The study found that the location of surface and groundwater monitoring points was not always adequate. Frequency of data collection was generally acceptable. Groundwater user inventories were dated or incomplete in many cases. It was not uncommon to find missing data on water quality entry forms. The study identified several areas of concern and suggested recommendations for improvement.

F. Energy Policy Act

This special study evaluated DSMRE's implementation of the water replacement provision of the Energy Policy Act. OSM reviewed a total of 71 complaints received by DSMRE in calendar year 1997 where the complainant alleged water loss due to underground mining. The study focused on the appropriateness of DSMRE's handling of the complaints. The adequacy of the DSMRE technical review, the type and timing of water replacement required, and the accommodation for future costs were specifically evaluated.

The study found that DSMRE makes good decisions on when and where to request technical assistance and when to conduct a site visit and sample water. DSMRE does a good job of advising citizens of their administrative appeal rights. DSMRE can improve documentation of technical findings. In addition, they can improve responses to citizens' complaints by improving the explanation of the basis of their decision on mining relatedness and by ensuring that citizens are advised of their rights under the Energy Policy Act.

G. Drainage Control Special Study

This was a joint OSM and DSMRE study of 10 minesites that were alleged, via citizen complaints, to have caused or significantly contributed to downstream flooding and/or flood related adverse impacts to citizens, property, or the environment.

The study team found no corroborating evidence to support the allegation that surface mining operations had a significant adverse impact on the flooding potential for citizens and residences downstream. However, some areas of the hydrology and flood potential modeling as presently applied were found to have possible weaknesses. Also, field personnel should more closely monitor the mining operations to ensure that approved drainage schemes are being followed and that proper erosion control devices are installed below spillways on steep slope areas.

H. Underground Mine Review

During 1996, LFO initiated a multi-part review of underground mines. The review covered both permitting actions and the inspection and enforcement of mine compliance. On September 8, 1999, LFO submitted the final report to DSMRE. The review and the resulting report focused on:

- Outcrop barrier blowouts
- Subsidence control plan compliance
- Unauthorized punchouts and unauthorized drainage into adjacent underground mines, and
- Portal closure methods.

The review found that DSMRE was not consistently inspecting for compliance with the performance standards related to the underground mine works. The review also identified permitting problems related to outcrop barriers. During the course of the review, LFO discussed the issues with DSMRE. In response, DSMRE significantly improved its inspection and enforcement efforts. This included the implementation of the 1998 regulation that requires the annual submittal of mine maps to DSMRE. LFO's review of DSMRE's current actions indicates that DSMRE has remedied most of the problems that existed prior to LFO's review. However, DSMRE has not completed action to remedy some of the issues. A summary of the review follows.

Outcrop Barriers (Blowout Potential). Generally, DSMRE was not evaluating blowout potential unless some adverse surface condition was reported.

Subsidence Control Plans (SCP). About half the mines that recovered coal under protected structures were in violation of their SCP (i.e., the mines exceed the permitted recovery rate under protected structures, such as dwellings). DSMRE had previously taken action on some of the violations. However, many of the violations had not been identified prior to the LFO review. DSMRE has issued several notices of non-compliance to remedy the SCP violations and have

significantly improved its inspection practices. DSMRE developed written guidance on review of underground mining maps and recovery rates.

Punchouts and Connections with Adjacent Works. DSMRE had previously identified and taken action on many of the punchouts (i.e., mine entries driven to the surface). However, they were not consistently inspecting for punchouts and issued additional enforcement action in response to the review. DSMRE has improved its inspection practices.

DSMRE has developed permitting procedures to address punchouts and drainage potential through old works.

Portal Closure. The review of newly-issued permits found that some of the permits' closure plans may not be adequate to control mine water that could pool at the portals. Inadequate control of the mine water at the portal can cause backfill stability problems and failure of the closure, resulting in a sudden discharge of mine water. DSMRE has not yet informed LFO of any actions taken as a result of this review.

I. 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.

J. AML Post-Construction

This study consisted of a post-construction review of AML projects. Twenty-five projects that had been completed for at least two growing seasons, but not more than five years, were visited in the field. The study found revegetation efforts 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 percent. Very minor slumping and retaining wall maintenance needs were identified. In general, the State's reclamation of all of the projects is effective and accomplishing long-term success in achieving the goals of the projects and the AML program.

K. Memorandum of Agreement (MOA)

This was a review of the MOA between DSMRE and the Kentucky State Nature Preserves Commission (KSNPC). DSMRE entered into a MOA with KSNPC to establish procedures for KSNPC to

provide environmental data and technical assistance to DSMRE for the purpose of fulfilling DSMRE responsibilities under the provisions of 405 KAR.

The review found that a new MOA was needed with specific receivables identified, and that these items be of benefit to DSMRE. The review also noted that all costs related to the general surveys conducted in coal counties be funded with non-OSM funds.

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*

APPENDIX A

TABULAR SUMMARY OF CORE DATA TO CHARACTERIZE THE PROGRAM

These tables present data pertinent to mining operations and State and Federal regulatory activities within Kentucky. They also summarize funding provided by OSM and Kentucky staffing. Unless otherwise specified, the reporting period for the data contained in all tables is October 1, 1998 to September 30, 1999. Additional data used by OSM in its evaluation of Kentucky's performance is available for review in the evaluation files maintained by OSM's LFO.

APPENDIX B

STATE COMMENTS ON THE REPORT

APPENDIX C

**PERMITTEES ISSUED NON-COMPLIANCES BY DSMRE
(Listed by Descending Number of Non-Compliances)**

APPENDIX D

PERMITTEES ISSUED NON-COMPLIANCES BY DSMRE
(Listed Alphabetically)