

***OFFICE OF SURFACE MINING
RECLAMATION AND ENFORCEMENT***

Annual Evaluation Summary Report

for the

Regulatory Program

Administered by the Knoxville Field Office

of

Tennessee

for

Evaluation Year 1998

(October 1, 1997 to September 30, 1998)

(November 1998)

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I. INTRODUCTION

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining Reclamation and Enforcement (OSM) in the Department of the Interior. SMCRA provides authority to OSM to oversee the implementation of and provide Federal funding for State regulatory programs that have been approved by OSM as meeting the minimum standards specified by SMCRA. The Act also provides authority for OSM to implement a Federal regulatory program in the States without approved regulatory programs. In Tennessee, OSM implemented the Federal regulatory program in October 1984 when the State repealed its surface mining law. This report contains summary information regarding the Tennessee Federal Program and the effectiveness of the Federal Program in meeting the applicable purposes of SMCRA as specified in section 102. This report covers the period of October 1, 1997, to September 30, 1998. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at the Knoxville, Tennessee OSM Office.

The following list of acronyms are used in this report:

ACSI	Appalachian Clean Streams Initiative
AMD	Acid Mine Drainage
BMP	Best Management Practice
DBNF	Daniel Boone National Forest
DSMRE	Kentucky Department for Surface Mining Reclamation and Enforcement
EIS	Environmental Impact Statement
EP	Electronic Permitting
EPACT	Environmental Policy Act
IUL	Inspectable Unit List
KFO	Knoxville Field Office
LFO	Lexington Field Office
MEIR	Minesite Evaluation Inspection Report
MWP	Mining Without a Permit
NREPC	Kentucky Natural Resources and Environmental Protection Cabinet
NOI	Notice of Intent to Explore for Coal
NRCS	Natural Resource Conservation Service
OSM	Office of Surface Mining
PED/EIS	Petition Evaluation Document/Environmental Impact Statement
SMCRA	Surface Mining Control and Reclamation Act
TDEC	Tennessee Department of Environment and Conservation
TWRA	Tennessee Wildlife Resources Agency
TMHP	Toxic Material Handling Plan
VER	Valid Existing Rights

II. OVERVIEW OF THE TENNESSEE COAL MINING INDUSTRY

Tennessee's coal resources are in 22 mining counties located in the Appalachian Region of the Eastern United States extending from the Kentucky border to the Alabama border in the east central portion of Tennessee. Mining in the northern counties is primarily in the steep slope areas of the Cumberland Mountain Range. Mining in the southern counties is confined to area-type operations due to the relatively flat terrain associated with the Cumberland Plateau.

Tennessee's recoverable coal reserves of 80.9 million short tons exist in bituminous coal beds 28 to 42 inches in thickness at depths of up to 1,000 feet. Tennessee coal is used primarily for the generation of electric power.

Tennessee ranks nineteenth in production of coal among the 25 coal producing states thus far in calendar year 1998. Coal production has steadily declined from a high of 11,260,000 tons in 1972 to 3,326,000 tons in 1997. Currently, there are 24 active coal producing mines that have permitted 6,481 acres for mining. Underground mines have permitted 136.2 acres (excluding shadow areas) at the ten active mines and surface operations have permitted 6,344.7 acres at the fourteen active surface mines.

III. OVERVIEW OF THE PUBLIC PARTICIPATION OPPORTUNITIES IN THE TENNESSEE FEDERAL PROGRAM

The Tennessee Federal Program provides numerous public participation opportunities in its program activities. Efforts are made to encourage participation and to inform the public of the avenues to participate in the regulatory program.

C Public/Citizen Participation in the Regulatory Process

Citizens, environmental groups, and industry representatives have complete access to all regulatory program files including permitting, inspection and enforcement, and bonding program files. Managers and staff have open-door policies for any segment of the public to discuss issues that may arise.

A meeting was held on February 18, 1998, between OSM Director Kathy Karpan, KFO personnel, and citizens at Fall Creek Falls State Park. The purpose of the meeting was primarily to discuss the Fall Creek Fall unsuitability petition. KFO briefed the citizens on the status of the preparation of the Petition Evaluation Document/Environmental Impact Statement. The

citizens, mostly petitioners, expressed their concerns to the Director regarding protection of Fall Creek Falls State Park.

The KFO meets with individual citizens, during the permitting process, who have expressed concerns or have an interest in a pending permit. The purpose of these meetings are to answer questions relative to the concerns and to provide information/explanations with respect to the permitting actions at issue. Public participation opportunities were also provided to the public in the review of 8 new permit applications processed by KFO this year. One informal conference was held.

KFO provided the public with outreach opportunities on several initiatives including the Appalachian Clean Streams Initiative, Remining, Electronic Permitting, Field Modifications of Approved Permits, and the Citizens' Guide for Public Involvement which informs citizens on how to gain access to the regulatory functions of the Tennessee Federal Program. The Field Office provided participation opportunities in the development of regulatory policies and issues dealing with identifying lands eligible for remining.

C Public Meetings

During the evaluation year 1998, the KFO held its Fiscal Year 2000 Planning meeting. While the turnout was low, we did have representatives from Save Our Cumberland Mountains (SOCM), Congressman Van Hilleary's office, National Coalition of Reclamation of Abandoned Mine Lands and the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS). The purpose of the meeting was to allow citizen participation in the planning process for OSM's FY 2000 budget. Most of the discussion centered on the need for greater abandoned mine land expenditures, particularly in Tennessee.

C Outreach Meetings with Individual Industry Stakeholders

The KFO has recognized several benefits resulting from previous outreach meetings with industry stakeholders. As a result of this initiative, fewer violations are being issued, violations are being abated in a more rapid manner and potential problems are resolved more easily when identified by inspection personnel. These benefits have resulted in the need for fewer meetings during FY '98. KFO conducted one outreach meeting with an active coal mine permittee in an effort to improve working relationships with the company. Topics discussed during the meeting included: (1) activities that were going well on company permits; (2) activities that created concern or potential concern; (3) ways in which OSM and the company could work better to alleviate the concerns; and (4) concerns/expectations the company had with respect to its operations and with working with OSM. These outreach meetings will resume, as necessary, beginning early in FY '99.

C **Industry Meetings**

C Pre-Permit Application Meetings with the Industry.

KFO began an initiative last year to meet with individual coal companies or their consultant prior to submittal of a permit application to discuss potential issues that might arise during the permitting process and to seek resolution of concerns/problems that address regulatory requirements as well as the needs of the industry stakeholder. Because of the success of this initiative and the acceptance of this endeavor by the permit applicants, consultants, other participating agencies and OSM, this activity has been made a part of the normal permitting process.

C Post-Permit Issuance Meetings.

Following the issuance of permits, KFO technical staff are visiting these minesites to review the effectiveness of the approved plan and to discuss with the operator potential modifications/improvements to the approved plan. The purpose of this outreach effort are to improve the permitting process and to answer questions that the operator and/or the inspector might have about the mining operation and reclamation plan.

C **Outreach Meetings with State of Tennessee Stakeholders**

During this evaluation year, KFO conducted three separate meetings with State and Federal stakeholders to discuss regulatory issues and concerns, to enhance information sharing, and to strengthen partnerships in protection of the environment. The participants at these meetings included the Tennessee Division of Natural Heritage, Tennessee Wildlife Resources Agency, U.S. Fish and Wildlife Service, Tennessee Water Pollution Control - Mining Division, Tennessee Department of Environment and Conservation and representatives from the Office of the State Historic Preservation Officer.

IV. MAJOR ACCOMPLISHMENTS/ISSUES/INNOVATIONS IN THE TENNESSEE FEDERAL PROGRAM

C **Identification of Potential Problems**

To assist operators and reduce follow-up inspection hours, after issuance of notices of violation, the field office continued to place additional emphasis on inspectors identifying and advising operators of potential problems observed during inspections before they became citable violations. This initiative has reduced the number of notices of violation being issued and the number of required follow-up inspections.

C **AMD Inspection/Evaluation Initiative**

The Knoxville Field Office continued its acid mine drainage (AMD) inspection/evaluation initiative of identification of potential AMD producers. During fiscal year 1998, four inspections were completed at three surface mines and one underground mine. The underground mine was included to evaluate the application of the AMD inspection methodology at underground mines. Information from the inspections will be used to determine if mining practices need to be modified or if permit revisions are required.

C Appalachian Clean Streams Initiative (ACSI)

The Federal Program in Tennessee participates in the Appalachian Clean Streams Initiative as facilitator with local watershed efforts to mitigate the effects of acid mine drainage being discharged into watersheds from abandoned coal mines. The majority of the on-the-ground work has been accomplished by the Tennessee Division of Water Pollution Control, Land Reclamation Section using monies provided to the State from OSM's AML fund. Three watersheds have been designated as ACSI watersheds:

North Chickamauga Creek. This is a watershed near Chattanooga that has a formal citizen's group leading the clean-up effort. The North Chickamauga Creek Conservancy has been the driving force behind the watershed restoration activities which include AMD treatment systems, land acquisitions for watershed preservation, stream bank stabilization projects, water monitoring programs, and Greenway trails and pathways. To date, the State of Tennessee has expended \$180,000.00 and OSM has expended \$275,570.00 for a total of \$455,570.00. During FY '98, Clean Streams Funds (\$91,000) were obligated for a passive treatment system of AMD discharges which should be installed during FY '99. In the past, the State of Tennessee has installed several passive treatment systems in the watershed at abandoned underground mines using OSM's AML funds.

Bear Creek. This is a watershed near Oneida in Scott County that flows into Big South Fork National River and Recreation Area. Numerous passive treatment systems have been installed at abandoned coal mines in this watershed and others are to be installed as funds become available. A total of \$839,411.00 has been expended to date which consist of 50% funding by the State of Tennessee and 50% funding with EPA 319 dollars. During FY '98, OSM obligated AML funds (\$200,000) in a cooperative effort with the Natural Resources and Conservation Service (NRCS) and the National Park Service for construction of AMD mitigation projects over a two year period.

Big Laurel Creek. This is a watershed in Fentress County and is the "Max Project" for Tennessee. The Tennessee Wildlife Resources Agency, in cooperation with the Tennessee Division of Water Pollution Control is taking the lead for the mitigation projects. The State agencies have installed several passive treatment systems in the watershed using OSM's AML funds. To date, \$1,002,120.00 has been expended including 25% sharing by Tennessee Department of Environment and Conservation and 25% sharing by Tennessee Wildlife Resources Agency. OSM is also providing \$300,000 in Clean Streams Funds to mitigate AMD discharges beginning in 1999 for the upper reaches of the watershed.

C Electronic Permitting (EP)

KFO has formed an Electronic Permitting Team to complete this initiative. The Team, through its solicitations of comments from consultants and industry, identified a need for an electronic means to apply for and obtain a surface coal mining permit. The Team developed a plan to establish an electronic permitting process. KFO contracted with TriLogic, a Pennsylvania ADP consulting firm, to perform a requirements analysis to identify the elements required to implement electronic permitting in Tennessee. The requirement analysis has been completed. Currently KFO is working with Virginia DMLR to develop an electronic permitting application form that would be available for any interested states in the Appalachian Region. The form is scheduled for completion in the Summer of 1999.

C Kentucky Cooperative Agreement for Federal Lands

The Commissioner of the Kentucky Natural Resources and Environmental Protection Cabinet submitted a proposed program amendment on May 2, 1997. This proposal was published on June 4, 1997, in the Federal Register, to become the regulatory authority for mining on Kentucky Federal Lands. The public comment period was scheduled to end on July 7, 1997. Two requests were received for an extension of the comment period, which was granted, establishing a deadline of August 4, 1997.

Written comments were received from members of the public, Federal agencies, and industry representatives. Because no one requested an opportunity to speak at a public hearing, no hearing was held. Several minor wording changes were made to the cooperative agreement in response to comments received. The effective date of the cooperative agreement was changed to correspond to the Federal Government's fiscal year, October 1, 1998.

The agreement was signed by Paul E. Patton, for the Commonwealth of Kentucky on August 18, 1998 and by Bruce Babbitt, Secretary of the Interior, on September 24, 1998.

C Kentucky Federal Lands Acid Mine Drainage Review

There are nine Federal lands permits that were identified as having acid mine drainage (AMD) discharging on the permit area or from the permit area. KFO, LFO and Kentucky developed a strategy for the evaluation and resolution of the issues related to these sites through a comprehensive program that includes pollution prevention technology, and the establishment of financial guarantees for long-term pollution problems, where appropriate.

C The Stearns Company Takings Case

The Stearns Company, LTD., has filed a suit in the United States Court of Federal Claims (Case No.594-89L), alleging the takings by the United States of a mineral estate of approximately 38,000 acres located under the surface of the Daniel Boone National Forest (DBNF) in Kentucky. The claim is for \$17 million plus interest.

The law suit was filed in October 1989 alleging these takings based upon OSM's denial of valid existing rights (VER) to surface mine coal within the DBNF. Further, Stearns alleges that VER constitutes a physical and regulatory takings. Stearns has refused to seek a compatibility determination that would allow it to underground mine.

The judge has asked the parties to focus on the reduction in value of the property because of the requirement to obtain a compatibility determination. The court case commenced in the Court of Federal Claims, in Washington D.C. on July 8, 1998, and due to a number of recesses is ongoing into FY '99.

C Lands Unsuitable for Mining

Fern Lake Unsuitability Petition The Director issued a decision on September 13, 1996, designating the entire petition area as unsuitable for all surface coal mining operations but allowing underground mining from outside the petition area. On November 12, 1996, Appolo Fuels, Inc., and J. M. Huber Corporation filed a lawsuit in the United States District Court for the Eastern District of Tennessee appealing OSM's designation decision. The plaintiffs filed a motion to the court to withdraw the appeal and subsequently the court dismissed the suit on July 20, 1998.

- C Fall Creek Falls Unsuitability Petition A petition to designate the 85,588 acre watershed and viewshed of Fall Creek Falls State Park and Natural Area in Bledsoe and Van Buren counties, Tennessee as unsuitable for mining was accepted for processing on October 5, 1995. The petitioners are Save Our Cumberland Mountains, Tennessee Citizens for Wilderness Planning, and 49 citizens.

The allegations in the petition primarily concern disturbing the acid- and/or toxic-producing zone in the shale that overlies the Sewanee coal seam which is the dominant seam of importance in the southern Tennessee coal fields. Historical mining of the Sewanee coal seam has resulted in the production of acid mine drainage (AMD) and caused adverse water quality impacts to the receiving streams. The petitioners allege that the technology does not currently exist to mine the Sewanee coal seam and prevent AMD. The petitioners support the allegation by referring to the permits issued to Skyline Coal Company (Skyline) by the OSM which are now producing AMD. Consequently, the petitioners conclude that mining the Sewanee seam in the petition area without the technology to prevent AMD would result in adverse water quality impacts to the surface water regime within Fall Creek Falls State Park which in turn would impact other natural resources and the socioeconomics of the park.

Processing of the petition has drawn a high degree of public and media interest due primarily to the focus on protecting Tennessee's premier state park.

The notice of availability for Fall Creek Falls draft Petition Evaluation Document/Environmental Impact Statement (PED/EIS) was published on May 1, 1998, in the Federal Register. The public comment period was open for 90 days and initially closed on July 30, 1998. Subsequently, the comment period was reopened on August 21, 1998, and closed on September 16, 1998, because of the public's continuing concerns and interest in the environmental and economic issues addressed in the draft PED/EIS.

In the draft PED/EIS, the Director proposes a preferred action to deny the petition in whole but require an EIS for each surface coal mining operation proposed to be conducted in the petition area. This proposal, as reflected in the statements made at the public hearing and in the written comments, has not been well received by the petitioners who contend that the Director should grant the petition and designate the entire area as unsuitable for mining.

OSM anticipates issuing a decision on the Fall Creek Falls unsuitability petition in March 1999.

C Bonding Initiative for Long-Term Treatment to Abate Water Pollution

KFO has established an inventory of mine sites for which there is the potential for long-term treatment to abate water pollution. The inventory is dynamic; in that, sites are added and removed based on the determination of the need for long-term treatment. Currently, KFO has identified 19 sites involving 9 companies where there is the potential for long-term treatment. KFO has reviewed the approved operation and reclamation plans for the 19 sites and has determined that all the permits contain approved treatment systems.

KFO has re-evaluated the performance bonds for eight of the sites in the inventory. On April 15, KFO mailed letters to three companies, involving the eight permits, requesting annual and capital treatment costs. KFO requested that the permittees submit their costs to KFO by mid-May. For these sites, the costs for long-term treatment has been calculated and KFO is prepared to request the companies to provide financial assurance for long-term treatment after KFO's policy is finalized. The remaining 11 sites involving six companies are being monitored to evaluate whether, in fact, long-term treatment will be necessary beyond the liability period.

KFO has prepared a draft Field Office policy describing proposed procedures for the adjustment of performance bonds on sites requiring long-term treatment of acid/toxic discharges. The draft is currently under review.

C Remining

The KFO Remining Team was formed in May 1996. The Team has solicited suggested remining initiatives from industry, the environmental community, and the regulatory community. The State has recently begun working with industry and KFO on a case by

case basis to modify effluent limit requirements in consideration of water quality improvements that would result from re-mining.

A meeting was held recently with industry representatives to discuss areas eligible for re-mining. KFO also plans to submit suggested regulatory reform to Headquarters that would further enhance reclamation through re-mining. The field office will continue to work with the mining, environmental, and regulatory communities to identify additional re-mining initiatives.

C Skyline Coal Big Brush #2 Permit

The Big Brush Mine #2 was controversial due to its close proximity to the Fall Creek Falls watershed which is subject to a Lands Unsuitable Petition and an EIS. It is also controversial since Skyline Coal Company failed to prevent AMD at the adjacent Gladly Fork Mine and Pine Ridge Mines (Both mines are treating for AMD). OSM tried to deny the Big Brush Mine #1 but lost a court decision that allowed mining to proceed with the use of lime amendments to the spoil. OSM issued the Big Brush Mine #2 (BB2) permit in March of 1997 which is a continuation of Big Brush Mine #1. The decision to issue the permit was based on the apparent success in preventing AMD at the Big Brush Mine #1.

Save Our Cumberland Mountains (SOCM) a citizens advocate group filed an appeal of the permit decision based on the argument that hydrologic monitoring plans were insufficient to identify impacts to the hydrologic balance. The case was heard by Administrative Law Judge Torbet in September/October 1997. A decision was made by Judge Sweitzer in August of 1998. The Judge agreed with SOCM that the Company must conduct water sampling at least every 90 days as opposed to 4 times a year. The Judge also agreed with SOCM that the monitoring plan narrative must be more specific as to how the monitoring data will be used to identify impacts to the hydrologic balance and the plan must list any other monitoring sites from adjacent operations that are to be used for this mine. The Judge did not agree with SOCM that any more monitoring sites were needed. OSM is currently reviewing a revision from Skyline to correct the deficiencies. SOCM has indicated they intend to appeal the decision unless OSM orders more monitoring sites. Negotiations with SOCM are ongoing.

C Eastern Minerals Takings Case

The case concerns a "takings" claim by the plaintiffs against the United States. The plaintiffs allege the United States, through the Surface Mining Control and Reclamation Act, prevented coal mining operations in Tennessee and the plaintiffs are seeking compensation.

There were two decisions rendered by the U.S. Court of Federal Claims during 1997 on this case. In February 1997, the Court ruled that the United States is liable for the taking and that the United States has financial responsibility for the taking. The Court instructed parties to negotiate a financial settlement. The parties failed to reach a settlement and in May 1997, the Court entered a judgement on the amount of

compensation to be paid the plaintiffs. Motions for reconsideration of this judgement are pending. As of September 30, 1998, no final order has been issued. As a side issue in this case, Cane Tennessee has attempted to intervene in claims court, but has been unsuccessful.

C Summary of Successes

The Field Office is in the process of establishing a Model Federal Program in Tennessee through the incorporation of national components of excellence in its program areas. The objective of the initiative is improvement of the Federal Program in Tennessee so that it may serve as a model for other surface mining regulatory programs.

This initiative concerns specific components of regulatory programs that represent a model approach to achieving the goals of SMCRA. The components were identified through an extensive outreach effort involving input from the Eastern and Western Support Centers, eight field offices, and fourteen states. Thirty-three of the forty-nine model program components have been initiated and the remaining seventeen components are planned to be initiated by the end of FY '98.

In addition, the Knoxville Field Office is improving its relationships with its customers and stakeholders by providing increased opportunities for participation in the regulatory functions of the Field Office and by meeting with the State, with citizens, with landowners, and with industry to discuss concerns and to foster better working relationships. The results have produced improvements in compliance with respect to operators anticipating and addressing potential problems before they develop into violations. There have also been enhancements in communications with operators and landowners, based on industry feedback since the outreach efforts began. This feedback has consisted of improved oral communications as well as input in draft (written) field office policies and procedures that affect industry operations.

5. TECHNICAL ASSISTANCE

The Knoxville Field Office (KFO) had and continues to have a number of its employees serving on different projects, teams and assignments that are of common interest to all of OSM and not just the Tennessee Federal Program. Several of these technical assistance activities are cooperative efforts with PSD and ARCC. The projects/activities which involve KFO employees are as follows:

- C Monongahela River Project in Pennsylvania and West Virginia.
- C Reasonably Available Spoil (RAS) experimental practices (EP) in Virginia.
- C Valley Fill Impact Study, Appalachian Region.
- C Technical Information Processing System (TIPS) operation and next generation.
- C Citizen Complaint Investigations (WV and KY).

- C Appalachian Region Electronic Permitting (EP) Team.
- C Appalachian Region Technical Coordinating Committee.

- C Provides Permitting Advice and Expertise (MS and others).
- C VER - Environmental Impact Statement
- C IMCC Remining Team
- C Regional Remining Team
- C Bond Handbook Committee
- C National Blasting Work Group
- C National Dam Safety Group
- C Instructions for BTTI Training Courses
- C Medical Requirements Team
- C AMD Bonding
- C Revegetation
- C AVS – National ownership and control rule redesign team and the Appalachian Region EP Team, AVS-EP Interface Subteam
- C Tennessee GIS Work Group

An Inspection Group staff person assisted Headquarters and Field Offices with Aviation Safety Training, a safety training course required for all staff members using helicopters in OSM's missions. The course was provided in Charleston, Lexington, Knoxville (for Charleston personnel) and in Washington, D.C. and a total of 50 people were trained.

VI. 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

To further the concept of reporting end results, the findings from performance standard evaluations are being collected for a national perspective in terms of the number and extent of observed off-site impacts and the number of acres that have been mined and reclaimed and which meet the bond release requirements for the various phases of reclamation. Individual topic reports are available in the Knoxville Office which provide additional details on how the following evaluations and measurements were conducted.

A. Off-Site Impacts

Active Sites:

One of the intents of SMCRA is to prevent adverse effects to the public and to the environmental resources adjacent to a permitted surface coal mining operation. To determine if “off-site” impacts occurred in Tennessee, all notices of violation (35) and all imminent harm cessation orders (2) issued during the evaluation period were reviewed. Inspection report narratives, civil penalty assessment sheets, and citizen complaint files were reviewed to determine the extent of damage that occurred, due to the violations, and to determine whether damage extended off the permit. Sixteen permits were identified as having twenty-eight people, land and water impacts off the permits. There was one minor nuisance impact to people resulting from blasting operations at one permit. Five offsite impacts (three minor and two moderate) to land occurred at four separate permits due to spoil slides, offsite erosion and one uncontrolled blast. Twenty-two impacts (17 minor and 5 moderate) to water resulted at eleven permits. The majority of these hydrology impacts were sediment laden runoff leaving the permits for short distances. The five moderate impacts to hydrology were due to adverse effects extending downstream for a significant distance.

All violations were considered to be either permittee negligence or related to steep slope mining and high precipitation events, or both. For this reason, improvements in the regulatory functions or processes are not deemed necessary at this time.

Bond Forfeiture Sites:

The Knoxville Field Office (KFO) is responsible for conducting inspections of bond forfeited sites at reduced frequencies including at least one complete inspection per year. Many of these sites have remained in abandoned status for several years and natural vegetative processes have stabilized the disturbances. KFO Reclamation Specialists were asked to report off-site impacts resulting from FY '98 complete inspections.

Three off-site impacts were reported at the bond forfeited sites currently in KFO's inventory. Two minor impacts to water occurred at two separate sites. Both resulted from poor vegetative cover and lack of functioning sediment controls. One of these impacts is characterized as occurring from year to year while the other was mitigated during FY '98 by contractor performed reclamation. One minor impact to land stability occurred at a third site due to an active spoil slide. This impact will continue to occur until the site stabilizes.

B. Bond Releases

During the period October 1, 1997, through September 30, 1998, the Field Office processed 68 bond release requests. A total of 61 release actions were approved, consisting of 17 Phase I, 24 Phase II, and 20 Phase III releases. These actions resulted in returning all or a portion of the bond on more than 7,053 acres of reclaimed mine lands (see attached table). During this same period six bond release requests were disapproved, consisting of one Phase I, one Phase II, and four Phase III releases. Also, one bond release request was withdrawn by the permittee.

APPENDIX A:

These tables present data pertinent to mining operations and Federal regulatory activities within Tennessee. Unless otherwise specified, the reporting period for the data contained in all tables is the same as the evaluation year. Additional data used by the Knoxville Field Office in its evaluation of performance is available for review in the evaluation files maintained by the Knoxville OSM Office.

TABULAR SUMMARY OF CORE DATA TO CHARACTERIZE THE PROGRAM

Table 1: Coal Production

Table 2: Inspectable Units

Table 3A: Tennessee Permitting Activity

Table 3B: Federal Lands Permitting Activity

Table 4: Off-Site Impacts

Table 5: Annual State Mining and Reclamation Results

Table 7: State Bond Forfeiture Activity

Table 8: Tennessee Staffing

Table 9: Funds Granted to Tennessee by OSM (*Not Applicable to Tennessee*)

Table 10: Inspection Activity

Table 11: Enforcement Activity

Table 12: Lands Unsuitable Activity

TABLE 1

TENNESSEE COAL PRODUCTION (Millions of short tons)			
Period	Surface mines	Underground mines	Total
Coal production ^A for entire State:			
Calendar Year			
1995	1.16	1.82	2.98
1996	1.89	1.74	3.63
1997	1.75	1.58	3.33

^A Coal production as reported in this table is the gross tonnage which includes coal that is sold, used or transferred as reported to OSM by each mining company on form OSM-1 line 8(a). Gross tonnage does not provide for a moisture reduction. OSM verifies tonnage reported through routine auditing of mining companies. This production may vary from that reported by States or other sources due to varying methods of determining and reporting coal production.

TABLE 2

INSPECTABLE UNITS As of September 30, 1998													
Coal mines and related facilities	Number and status of permits								Insp. Unit^D	Permitted Acreage^A (hundreds of acres)			
	Active or temporarily inactive		Inactive		Abandoned		Totals				IP	PP	Total
	IP	PP	Phase II bond release										
			IP	PP	IP	PP							
STATE and PRIVATE LANDS REGULATORY AUTHORITY: FEDERAL													
Surface mines	3	52	3	17	103	34	109	103	-	40	185	225	
Underground mines	1	56	-	9	20	22	21	87	-	2	12	14	
Other facilities	1	56	-	1	3	4	4	61	-	1	26	27	
Subtotals	5	164	3	27	126	60	134	251		43	223	266	
FEDERAL LANDS REGULATORY AUTHORITY: FEDERAL													
Surface mines	-	-	-	-	-	-	-	-	-	-	-	-	
Underground mines	-	-	-	-	-	-	-	-	-	-	-	-	
Other facilities	-	-	-	-	-	-	-	-	-	-	-	-	
Subtotals													
ALL LANDS^B													
Surface mines	4	53	3	17	102	26	109	96	-	40	185	225	
Underground mines	1	57	-	9	20	19	21	85	-	2	12	14	
Other facilities	1	54	-	1	3	4	4	59	-	1	26	27	
Totals	6	164	3	27	125	49	134	240		43	223	266	
Average number of permits per inspectable unit (excluding exploration sites)										<u>1</u>			
Average number of acres per inspectable unit (excluding exploration sites)										<u>64.6</u>			
Number of exploration permits on State and private lands: <u>0</u>					On Federal lands: <u>0</u>					C			
Number of exploration notices on State and private lands: <u>34</u>					On Federal lands: <u>0</u>					C			
<p>IP: Initial regulatory program sites. PP: Permanent regulatory program sites.</p> <p>^A When a unit is located on more than one type of land, includes only the acreage located on the indicated type of land.</p> <p>^B Numbers of units may not equal the sum of the three preceding categories because a single inspectable unit may include lands in more than one of the preceding categories.</p> <p>^C Includes only exploration activities regulated by the State pursuant to a cooperative agreement with OSM or by OSM pursuant to a Federal lands program. Excludes exploration regulated by the Bureau of Land Management.</p> <p>^D Inspectable Units includes multiple permits that have been grouped together as one unit for inspection frequency purposes by some State programs.</p>													

TABLE 3A

**TENNESSEE PERMITTING ACTIONS
As of September 30, 1998**

Type of application	Surface mines			Underground mines			Other facilities			Totals		
	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres ^A	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres
New permits	2	6	1365	1	2	24.8	0	0	0	3	8	1,390
Renewals	1	2	709	3	6	96.6	9	8	372.1	13	16	1,178
Incidental boundary revisions	5	5	22.2	2	0	0	3	0	0	10	5	22
Revisions (exclusive of incidental boundary revisions)	47	58		25	28		7	9		79	95	
Transfers, sales and assignments of permit rights	8	9		7	9		13	11		28	29	
Small operator assistance	0	0		0	0		0	0		0	0	
Exploration permits	0	0		0	0		0	0		0	0	
Exploration Notices ^B	0	0		0	0		0	0		0	0	
Totals	63	80		38	45		32	28		133	153	2,590

OPTIONAL - Number of midterm permit reviews completed that are not reported as revisions 31

^A Includes only the number of acres of proposed surface disturbance.

^B State approval not required. Involves removal of less than 250 tons of coal and does not affect lands designated unsuitable for mining.

TABLE 3B

**FEDERAL LANDS PERMITTING ACTIONS
As of September 30, 1998**

Type of application	Surface mines			Underground mines			Other facilities			Totals		
	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres ^A	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres
New permits	1	1	12.5	2	7	459.0	0	1	9.7	3	9	481
Renewals	0	0	0	2	3	2789.0	0	0	0	2	3	2,789
Incidental boundary revisions	1	1	3	2	2	19.8	0	0	0	3	3	23
Revisions (exclusive of incidental boundary revisions)	1	1		2	2		2	2		5	5	
Transfers, sales and assignments of permit rights	0	0		1	3		0	0		1	3	
Small operator assistance	0	0		0	0		0	0		0	0	
Exploration permits	2	2		0	0		0	0		0	0	
Exploration Notices ^B	0	0		0	0		0	0		0	0	
Totals	5	5		9	17		2	3		14	23	3,293

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

9

^A Total acreage permitted (surface disturbance and shadow area).

^B State approval not required. Involves removal of less than 250 tons of coal and does not affect lands designated unsuitable for mining.

TABLE 4

OFF-SITE IMPACTS														
RESOURCES AFFECTED			People			Land			Water			Structures		
DEGREE OF IMPACT			minor	moderate	major	minor	moderate	major	minor	moderate	major	minor	moderate	major
TYPE OF IMPACT AND TOTAL NUMBER OF EACH TYPE	Blasting	1	1											
	Land Stability	2			2									
	Hydrology	22						17	5					
	Encroachment	3			1	2								
	Other	0												
	Total	28	1			3	2		17	5				
OFF-SITE IMPACTS ON BOND FORFEITURE SITES														
RESOURCES AFFECTED			People			Land			Water			Structures		
DEGREE OF IMPACT			minor	moderate	major	minor	moderate	major	minor	moderate	major	minor	moderate	major
TYPE OF IMPACT AND TOTAL NUMBER OF EACH TYPE	Blasting													
	Land Stability	1			1									
	Hydrology	2						2						
	Encroachment													
	Other													
	Total	3				1			2					

TABLE 5

ANNUAL STATE MINING AND RECLAMATION RESULTS		
Bond release phase	Applicable performance standard	Acreage released during this evaluation period
Phase I	<ul style="list-style-type: none"> ● Approximate original contour restored ● Topsoil or approved alternative replaced 	3,422
Phase II	<ul style="list-style-type: none"> ● Surface stability ● Establishment of vegetation 	2,336
Phase III	<ul style="list-style-type: none"> ● Post-mining land use/productivity restored ● Successful permanent vegetation ● Groundwater recharge, quality and quantity restored ● Surface water quality and quantity restored 	1,295
	Total number of disturbed acres at end of last review period (October 1, 1997) ¹	15,411.4
	Total number of acres disturbed during this evaluation year	1,090.6
	Number of acres disturbed during this evaluation year that are considered re-mining	374.1
<p>¹ Disturbed acres in this category are those that have not received a Phase III or other final bond release (State maintains jurisdiction).</p>		

TABLE 7

STATE BOND FORFEITURE ACTIVITY (Permanent Program Permits)			
	Sites	Dollars	Acres
Bonds forfeited as of September 30, 1997 ^A	19	\$1,532,325.00	629.5
Bonds forfeited during EY 1998	3	112,400.00	63.3
Forfeited bonds collected as September 30, 1997 ^A	7	472,400.00	18.4
Forfeited bonds collected during EY 1998	3	112,400.00	63.3
Forfeiture sites reclaimed during EY 1998	1	19,555.00	^B 4
Forfeiture sites repermited during EY 1998	0		0
Forfeiture sites unreclaimed as of September 30, 1998	14	899,513.00	782
Excess reclamation costs recovered from permittee	0	0	0
Excess forfeiture proceeds returned to permittee	0	0	0
^A Includes data only for those forfeiture sites not fully reclaimed as of this date. ^B Cost of reclamation, excluding general administrative expenses.			

TABLE 8

TENNESSEE STAFFING (Full-time equivalents at end of evaluation year)	
Function	EY 1998
Regulatory program	54
Permit review	19
Inspection	18
Program support (field office, administrative, fiscal, personnel, civil penalty, applicant violator system, bond release, bond forfeiture, bond document review, etc.)	17
	54

TABLE 10

STATE OF TENNESSEE		
INSPECTION ACTIVITY		
PERIOD: OCTOBER 1, 1997 - SEPTEMBER 30, 1998		
Inspectable Unit Status	Number of Inspections Conducted	
	Partial	Complete
Active*	1042	523
Inactive*	72	305
Abandoned*	69	204
Exploration	54	103
Total	1237	1135

* Use terms as defined by the approved State program

TABLE 11

STATE OF TENNESSEE		
ENFORCEMENT ACTIVITY		
PERIOD: OCTOBER 1, 1997 - SEPTEMBER 30, 1998		
Type of Enforcement Action	Number of Actions*	Number of Violations*
Notice of Violation	35	51
Failure-to-Abate Cessation Order	7	11
Imminent Harm Cessation Order	2	2

* Does not include those violations that were vacated.

TABLE 12

STATE OF TENNESSEE			
LANDS UNSUITABLE ACTIVITY			
PERIOD: OCTOBER 1, 1997 - SEPTEMBER 30, 1998			
Number of Petitions Received	- 0 -		
Number of Petitions Accepted	- 0 -		
Number of Petitions Rejected	- 0 -		
Number of Decisions Declaring Lands Unsuitable	- 0 -	Acreage Declared as Being Unsuitable	- 0 -
Number of Decisions Denying Lands Unsuitable	- 0 -	Acreage Declared as Being unsuitable	- 0 -

