

*October, 2008*

***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 2008**

**(October 1, 2007, to September 30, 2008)**

**TABLE OF CONTENTS**

I. Introduction .....3

II. Overview of Coal Mining Industry .....3

III. Overview of Public Participation in the Program.....4

IV. Major Accomplishments/Issues/Innovations.....5

V. Technical Assistance .....12

VI. Success in Achieving the Purposes of SMCRA.....13

    Off-site Impacts .....13

    Bond Releases .....14

Appendix A: Tabular Summary of Core Data to Characterize the Program .....15

REG-8 Tables..... 16 - 30

## **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 In Tennessee, OSM implemented the Federal regulatory program in October 1984 when the State repealed its surface mining law.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, 2007, to September 30, 2008. 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. You can also view this report on the OSM Appalachian Regional website at <http://arcc.osmre.gov/AnnualReports.asp>

The following list of acronyms is used in this report:

AMD	Acid Mine Drainage
AML	Abandoned Mine Land
ARRI	Appalachian Regional Reforestation Initiative
FRA	Forestry Reclamation Approach
KFO	Knoxville Field Office
MEIR	Minesite Evaluation Inspection Report
NMA	National Mining Association
NRCS	Natural Resources Conservation Service
NTTP	National Technical Training Program
OSM	Office of Surface Mining
SMCRA	Surface Mining Control and Reclamation Act
TDEC	Tennessee Department of Environment and Conservation
TIPS	Technical Innovation and Professional Services

## **II. OVERVIEW OF THE TENNESSEE COAL MINING INDUSTRY**

Tennessee's coal resources are in 22 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 generally confined to area-type operations due to the relatively flat terrain associated with the Cumberland Plateau.

Tennessee's recoverable coal reserves of 60.7 million short tons exist in bituminous coal beds from less than 28 inches 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 ranked twenty second in production of coal among the 26 coal-producing states in fiscal year 2008. Coal production declined from a high of 11,260,000 tons in 1972 to 2.564 million tons in 2003. Coal production has increased since calendar year 2003 with 2.7 million tons reported during calendar year 2007. Currently, there are 19 active coal-producing mines that have permitted 10,367 acres for mining. Underground mines have permitted 91 acres, excluding shadow areas, (shadow area is the footprint of the underground disturbance transposed to the surface area above) at 4 active mines, and surface operations have permitted 10,274 acres at 15 active mines as of September 30, 2008.

### **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.

- **Public/Citizen Participation in the Regulatory Process**

Citizens, environmental groups, and industry representatives have 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.

During the permitting process, the KFO meets with individual citizens who have expressed concerns or have an interest in a pending permit or renewal application or a revision of an existing permit. The purpose of these meetings is to answer questions relative to the concerns and to provide information and/or explanations with respect to the permitting actions at issue.

Public participation opportunities are afforded on all applications for new permits, significant revisions and renewals reviewed in KFO. In FY 08, public conferences and associated input were requested and provided on two new applications and five renewal applications processed by KFO.

- **Agency Participation in the Regulatory Process**

Just as with participation of the public in the SMCRA regulatory process, KFO solicits input from numerous local, State, and Federal agencies that may have an interest in a proposed permitting action. In addition to providing written notification to these agencies, KFO began participating in periodic meetings with agencies such as the Tennessee Department of Environment and Conservation, U. S. Fish and Wildlife Service, and the National Park Service to discuss issues related to coal mining in Tennessee. In FY 08, numerous inter-Agency meetings occurred in response to concerns, issues, and clarification of existing policies.

- **Industry Meetings**

Pre-Permit Application Meetings with the Industry - KFO continues to meet with individual coal companies or their consultant(s) 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 become routine in the normal permitting process.

Stakeholder Meetings with the Industry - In implementing the regulatory program in Tennessee, KFO may from time to time determine that a stakeholder meeting is warranted to discuss programmatic issues which may affect the coal industry in Tennessee. These meetings are designed to solicit input from the industry for consideration during the agency decision making process. KFO conducted one such meeting during the past year to solicit stakeholder input in the development of a guidance document for the protection and enhancement of the blackside dace, a species of fish listed as “threatened” under the Endangered Species Act. Another meeting was held with industry stakeholders to discuss new bond release guidance documents. A third meeting was held with industry to discuss new revegetation statistical sampling procedures.

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

- **Identification of Potential Problems**

The field office continues to place additional emphasis on inspectors identifying and advising operators of potential problems observed during inspections before they become citable violations. This initiative is effective in preventing environmental problems and potential off-site impacts from occurring.

- **Abandoned Mine Land Projects in Tennessee**

OSM now allocates and awards funding to Tennessee to reclaim abandoned mine land sites pursuant to provisions included in the 2006 changes to SMCRA. The Tennessee Department of Environment and Conservation (TDEC), Land Reclamation Section is the State agency responsible for receiving such AML funds and implementation of the approved Tennessee Abandoned Mine Reclamation Plan.

During FY 08 TDEC was awarded an AML grant for the period February 1, 2008, to January 31, 2012, in the amount of \$1,869,416 with subaccounts for \$1,342,766 in non-emergency construction costs; \$300,000 in water supply costs; \$221,650 in Acid Mine Drainage (AMD) set-aside costs; and \$5,000 in non-emergency administrative costs

Pursuant to a request from the Knoxville Field Office, TDEC applied for and was subsequently awarded \$64,000 in post Act civil penalty funds.

Tennessee has, to date, exhausted the approved \$221,650 AMD set-aside funds. Tennessee submitted and OSM approved an authorization to proceed with one \$600,000 non-emergency construction project. This project is expected to go to construction contract in the next few months.

Tennessee is also currently working on an AML program amendment to update its program to comply with revised SMCRA standards. The amendment is expected to be finalized following OSM adoption of revised AML regulations to implement the 2006 SMCRA amendments.

- **Acid Mine Drainage Mitigation Projects**

The Federal Program in Tennessee participates as facilitator with local watershed efforts to mitigate the effects of acid mine drainage (AMD) being discharged into watersheds from abandoned coal mines. The TDEC completed on-the-ground work using monies provided by local, State, and Federal agencies and OSM's Abandoned Mine Land (AML) fund. The five designated watersheds are:

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, cooperating agencies, private and corporate contributors, and in-kind services from the local communities have provided over five million dollars toward the restoration and preservation activities. In evaluation year 2008, TDEC installed an additional passive water treatment project to treat water from abandoned underground mines and completed the reclamation of 20 acres of spoil and highwall in the watershed. Also, KFO continued to provide water monitoring assistance to the watershed group's partners in order to prioritize water improvement project needs and document the effects the water improvement projects have on the creek.

Bear Creek - This is a watershed near Oneida in Scott County that flows into the Big South Fork National River and Recreation Area. The TDEC installed numerous passive treatment systems at abandoned coal mines in the watershed and additional future facilities will be installed as funds become available. To date, the TDEC, the Environmental Protection Agency, the Natural Resources and Conservation Service (NRCS) and OSM have contributed \$2,433,235.00 in funds and in-kind services in Bear Creek. In evaluation year 2008, NRCS continued construction activities on two watershed cooperative agreement projects that will reclaim toxic spoils and treat water from abandoned mines in the areas. Due to increased cost of fuel, fertilizers and transportation, additional funding was requested by the partnership. OSM provided

\$98,000 and \$99,000 for the cooperative agreements that were initiated in FY 2006. The work should be completed in FY 2009.

Big Laurel Creek - This is a watershed in Fentress County, Tennessee. The Tennessee Wildlife Resources Agency (TWRA), in cooperation with the TDEC, is taking the lead for the mitigation projects. The State agencies have installed several passive treatment systems in the watershed using State and OSM's AML funds. During 2008, field office personnel continued to provide water monitoring assistance to the partners in the watershed improvement group to help prioritize water improvement project needs in the watershed.

Coal Creek - Coal Creek and the associated watershed is about 30 miles north of Knoxville and flows through Lake City and empties into the Clinch River; one of Tennessee's most used trout fisheries. The mission statement of the Coal Creek Watershed Foundation is to "Improve the Quality of Life in the Coal Creek Watershed". The group was formed in late 1999 and has been very active with clean up, educational, and outreach efforts. Many State, local, and Federal agencies are initiating studies in the watershed to determine the best approaches to meet the group's goals. During 2008, KFO staff participated in watershed clean-up days to support the efforts of the partners.

Big Creek - This watershed is about 40 miles north of Knoxville and empties into Norris Lake. The water intake for the City of LaFollette is also in Big Creek. The main tributaries of Big Creek are Thompson and Ollis Creeks which were extensively mined and heavily impacted by acid mine drainage from abandoned coal mines. In evaluation year 2008, KFO personnel provided water monitoring assistance to partnership members to document water quality conditions and to identify water improvement project needs. The partners completed water improvement projects with watershed cooperative agreement funds provided by OSM in FY 06. The current effort will be the first of multi-year projects to clean up streams heavily impacted by drainage from abandoned mines.

**Stream Restoration:  
Tributary of Big Creek  
Campbell County, Tennessee**

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- **White Oak Reforestation Project**

The White Oak Reforestation Project is located in Campbell County, Tennessee. The initial phase of this project was to establish a 130-acre Forestry Reclamation Approach (FRA) demonstration area on a mine site reclaimed by Gatliff Coal Company in 2002.

During 2008, the demonstration area was used to show effective reforestation to coal companies, landowners, and OSM staff and encourage the use of the FRA on other mine sites in Tennessee. Emphasis is placed on explaining the environmental benefits that can be realized through creating highly productive forestland on reclaimed mine sites. These multiple benefits include restoration of clean water and air resources, carbon sequestration, soil conservation, wildlife and endangered species habitat, recreational opportunities, commercial forestry, and other economic opportunities based on forest products.

- **Appalachian Regional Reforestation Initiative**

Established in 2004, the Appalachian Regional Reforestation Initiative (ARRI) is a cooperative effort among the States of Kentucky, Maryland, Ohio, Pennsylvania, Virginia and West Virginia; the Office of Surface Mining, including the Tennessee Federal Program, their partners in industry, environmental organizations, academia, local, State and Federal government agencies and local citizenry. KFO staff are members of the ARRI Core Team and serve as Liaison for the ARRI Academic Team. The goals of the initiative are to plant more high-value hardwood trees on reclaimed coal mined lands in Appalachia and to increase the survival rates and growth rates of the planted trees. KFO continues to provide leadership and active support in promoting and achieving the goals of ARRI.

In 2008, six permits totaling 1,309 acres were issued by KFO that incorporated the FRA into the mining and reclamation plans. Two permits totaling 94 acres were issued that did not incorporate the FRA; however, the landowner specifically requested that these areas be left in grassland wildlife habitat. As a result, 93 percent of the permitted acres include the FRA in FY 08. During 2008, a total of 445,650 trees were planted on reclaimed mine sites in Tennessee with 276,600 trees planted on sites prepared using the FRA. As a result, 62 percent of trees planted in 2008 were on sites prepared using the FRA.

During 2008, OSM set a goal of moving the FRA into the Mid-Continent Region (MCR). KFO staff played a major role in working toward this goal by making FRA presentations at meetings attended by all of the MCR state regulatory agencies. Following these presentations, the MCR states requested additional meetings to observe FRA prepared sites in the Appalachian Region and requested KFO staff to assist in developing FRA demonstration sites.

KFO partnered with the Tennessee Chapter of the American Chestnut Foundation to promote and organize planting of American Chestnut seed on an active mine site at the 2008 ARRI Arbor Day Event. More than 60 volunteers attended the planting including citizen groups, university students and state and federal government representatives.

KFO worked with the University of Tennessee to develop OSM Applied Science Proposals for research on implementing the FRA on steep slope mining areas. These proposals were selected for funding by OSM with KFO staff serving as the OSM Technical Representative for the approved projects.

During 2008 KFO staff made presentations about ARRI and the FRA at numerous conferences including those for the American Society of Mining and Reclamation, the Society of American Foresters and The American Chestnut Foundation.



**Brent Wahlquist and Earl Bandy examine an American Chestnut seedling planted during Arbor Day 2008 at the Zeb Mountain in TN**



**A hardwood forest is developing after 4 years at the White Oak Reforestation Project in TN**

- **Unpermitted Mining – Rarity Mountain Development Corporation**

On July 10, 2008, the OSM KFO received information from a concerned citizen that unpermitted surface coal mining operations were being conducted by Rarity Mountain Development Corporation. Rarity Mountain is a 4,877 acre private land development in Campbell County with plans for an 18-hole golf course and upscale home sites.

On July 24, 2008, the OSM KFO conducted an onsite investigation. A Cessation Order was issued citing Rarity Mountain for conducting coal mining activities without a valid SMCRA permit. A Notice of Violation was also issued citing three SMCRA performance standards. Rarity Mountain documented the amount of coal removed from the site, paid the required reclamation fees, and then obtained approval and implemented a reclamation plan in mid-October 2008.

- **Summary of Successes**

KFO continues to improve 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 State and Federal agencies, citizens, landowners, and industry to discuss concerns and to foster better working relationships. The results have produced enhancements 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 into development of field office policies and procedures such as development of guidance documents for the protection and enhancement of Federally-listed species such as the Indiana bat and the blackside dace. Customer driven feedback was also applied to agency rules and regulations such as the recent regulatory changes related to reforestation and the establishment of trust funds that guarantee the long-term treatment of post-mining pollutional discharges for mine sites in Tennessee.

Trust Funds - OSM entered into its first long term treatment trust fund on June 25, 2008 with an agreement with Lexington Coal Company (LCC). In accordance with 30 CFR 942.800(c), this trust will guarantee treatment of the long-term post-mining pollutional discharges associated with Tennessee Permit No. 3157 for the Gladly Fork mine. The primary purpose of the Trust is to protect the environment; and the health and welfare of the public while providing an economical way through which the alternative bond (\$1,649,618) will be invested and managed for long-term operation of water control and treatment facilities associated with post-mining pollutional discharges emanating from the Gladly Fork mine. The successful implementation of this first treatment trust has given rise to a new mechanism for addressing post-mining pollutional discharges. Additional sites are being evaluated in FY 09 as technical reviews of the water quality conclude at several sites with potential post-mining water quality concerns.

Electronic Permitting - KFO serves as a leader in promoting new technology in implementing SMCRA. by creating the first federal electronic permitting process. The Electronic Permit Application Control Solution (EPACS) encompasses all of the permitting aspects in KFO. EPACS consists of two major components, the client tool that allows the applicant to electronically prepare and transmit the application and the internal tracking tool that allows management and staff to track and review the application. The creation and implementation of electronic permitting in Tennessee will assist in a solution for the future. Additional benefits of an electronic permitting process include the following:

- Reduction of paper. (Only one electronic copy of the application is submitted)
- Pre-submission information exchange. (Existing geological and hydrological data will be available to the applicant)
- Improved review times. (Includes centralized responses for additional information and electronic review and identification of changes)
- Real time tracking of reviews. (Ability to determine the status of applications)

- Multiple reviews from a single source. (Ability to review several permits from a single reviewer's desktop.)
- Improved customer service. (Provide customers with the ability to review information in an electronic form)

KFO GIS - The KFO Geographic Information System (KFO GIS) is the only federal repository of coal mining geographic data sets for surface coal mining operations (SCMO) located within Tennessee. KFO customers use these spatial data sets of coal mining-related impacts to visualize and understand the relationships of coal mining operations to the environment. KFO continues to digitize SCMO features from paper maps for input into KFO's GIS database. The KFO GIS data was utilized to create a Biological Survey Database to capture data from field and stream surveys associated with fish, macro-invertebrates, bats, and mussels. Additionally, KFO staff participant on the National Geospatial Data Standards Team. The team was created under OSM's National Coal Mining Geospatial Committee (NCMGC). The purpose of the team is to write standards that comply with American Society for Testing and Materials (ASTM) International for identified SCMO features and define a table of minimum attributes to be applied at a national level for collecting the data. Over time, as the database continues to grow, OSM will also be able to use the database as a tool to help evaluate long term trends in stream systems within the coalfields.

- **Litigation** – No new litigation was initiated during FY 08.

**Pending:**

***National Mining Ass'n v. Kempthorne, No. 00-0549 (E.D. Tenn.)***

The National Mining Association (NMA) challenges KFO's issuance of Field Office Policy Memorandum No. 37, which establishes procedures for revising permits and increasing reclamation bonds where there is unanticipated AMD. The plaintiff asserts that the Tennessee Federal Program had previously not recalculated the bond upon the occurrence of AMD and had released the bond even in cases where continued water treatment could be required to meet applicable effluent limitations. Accordingly, NMA argues that the Policy Memorandum's new procedures for recalculating bond amounts to account for long-term treatment of AMD violate both the Administrative Procedure Act and the Surface Mining Control and Reclamation Act of 1977 (SMCRA). On April 6, 2006, OSM published a proposed rule in the *Federal Register* that provides for the use of trust funds and annuities to fund the treatment of postmining pollutional discharges from surface coal mining operations and thus satisfy performance bond obligations for treatment of those discharges. A public hearing on the proposal was held on June 1, 2006, and written comments were accepted until June 30, 2006. The final rule was published in the *Federal Register* on March 2, 2007. The parties continue settlement negotiations.

## V. TECHNICAL ASSISTANCE

KFO continues to have a number of its employees, primarily the Technical Group staff, serving on different projects, teams, and assignments that are of common interest to the Appalachian Region and to all of OSM. Several of these technical assistance activities are cooperative efforts with the Program Support Division within ARC. For the evaluation year, the Technical Group has spent approximately 93 percent of its time on Federal program activities and 7 percent on technical assistance activities. The projects and activities, which involve KFO employees, are as follows:

- National Blasting Work Group
- Instructors for NTTP Training Courses
- Instructors for TIPS Training Courses
- Appalachian Regional Reforestation Initiative
- KFO Reforestation Initiative
- Technical support to OSM's Lexington and Charleston Field Offices for oversight and Federal Lands issues
- Technical support to Bureau of Land Management on Federal Lands issues such as leasing and NEPA requirements
- Technical support for joint OSM / State initiative to apply geospatial technology in implementation of the SMCRA regulatory program.
- New River Mussel Survey
- Technical support to National Park Service and other Federal / State agencies in development of a hydrologic database for the New River watershed

## 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 that meet the bond release requirements for the various phases of reclamation.

- **Off-Site Impacts**

Active Sites - One of the intents of SMCRA is to prevent adverse affects to the public and to the environmental resources adjacent to a permitted surface coal mining operation. While conducting complete and partial inspections during EY 2008 KFO Reclamation Specialists evaluated all active mine sites for off-site impacts. Off-site impacts resulting from SMCRA violations were directly reported via the Minesite Evaluation Inspection Report (MEIR). The MEIR data was transferred to a database with a summary report developed for year-end reporting purposes. In addition to MEIR data collection, citizen complaint files were evaluated and interviews with individual inspectors were conducted to determine if off-site impacts from other sources had occurred.

Eleven permits (all in Tennessee) were identified as having fourteen events that impacted 23 resources (people, land, water and structures). Ten off-site impacts to water (4 minor and 6 moderate) occurred due to changes in water chemistry during mining or sediment laden run-off leaving the sites for short distances. Ten impacts to land (5 minor and 5 moderate) resulted from spoil slides, encroachment off permit and blast flyrock. Five impacts to people (2 minor and 3 moderate) occurred due to adverse impacts to a public road and uncontrolled blasting events. A major off-site impact to structures occurred when a public road was undercut causing road instability.

The majority of the violations were considered to be permittee negligence. For this reason, improvements in the regulatory functions or processes are being reviewed.

**OSM-KFO Reclamation Specialist, Dudley Shumate conducts field sampling for hydrologic impacts**



Bond Forfeiture Sites - 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 but natural vegetative processes have stabilized the disturbances.

Three off-site impacts (two minor and two moderate) were reported during EY 2008. Two impacts resulted from low pH runoff discharges into receiving streams. During FY 08, the KFO received civil penalty monies, which will be utilized to install passive treatment systems to remediate these two impacts. This work is expected to be conducted during FY

09. The third off-site impact affected water resources when a resort development conducted unpermitted surface coal mining operations without sediment control measures.

- **Bond Releases**

During the period October 1, 2008, through September 30, 2008, KFO processed 58 bond release applications. A total of 35 release actions were approved, consisting of 17 Phase I, 11 Phase II, and 7 Phase III releases. These actions resulted in returning all or a portion of the bond on 6,784 acres of reclaimed mine lands (see attached table). During this same period 7 bond release applications were disapproved, 8 bond release applications were returned as incomplete and 8 bond release applications withdrawn.

As a result of an Alternative Internal Management Control Review, KFO developed and issued a new bond release field office guidance document which clarified the bond release requirements for the industry and transferred more of the responsibility for bond release decisions to the reclamation specialist.

## **APPENDIX A:**

These tables present data pertinent to mining operations and Federal regulatory activities within Tennessee. The reporting period for the data contained in the tables is October 1, 2006, through September 15, 2007. This abbreviated reporting period is to facilitate the request to report all REG-8 table data by October 2, 2007. Additional data used by KFO in its evaluation of performance is available for review in the evaluation files maintained by the KFO.

### **TABULAR SUMMARY OF CORE DATA TO CHARACTERIZE THE PROGRAM**

- Table 1: Coal Production in Tennessee
- Table 2: KFO Inspectable Units in Tennessee
- Table 2: KFO Inspectable Units in Georgia
- Table 3: KFO Permitting Activity in Tennessee
- Table 4: Off-Site Impacts in Tennessee
- Table 4: Off-Site Impacts in Georgia
- Table 5: Annual State Mining and Reclamation Results for Tennessee
- Table 6: KFO Bond Forfeiture Activity
- Table 7: KFO Staffing
- Table 8: Funds Granted to State by OSM
- Table 9: KFO Inspection Activity in Tennessee
- Table 9: KFO Inspection Activity in Georgia
- Table 10: KFO Enforcement Activity in Tennessee
- Table 10: KFO Enforcement Activity in Georgia
- Table 11: Lands Unsuitable Activity

**TABLE 1**

**Coal Produced for Sale, Transfer, or Use**  
 (Millions of Short Tons)

Period	Surface Mines	Underground Mines	Total
Coal production <sup>A</sup> for entire State:			
Calendar Year			
CY 2005	2.183	1.254	3.437
CY 2006	1.624	1.222	2.846
CY 2007	1.777	0.886	2.663

<sup>A</sup>  
 Coal production as shown in this table is the gross tonnage and includes coal produced during the calendar year (CY) for sale, transfer or use. The coal produced in each CY quarter is reported to OSM during the following quarter by each mining company on line 8 (a) of form OSM-1, 'Coal Reclamation Fee Report.' 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.  
 Provide production information for the latest three full calendar years to include the last full calendar year for which data is available.

**TABLE 2**

**Inspectable Units**  
 As of September 30, 2008

Coal mines and related facilities	Number and Status of Permits								Nbr. of Insp. Units <sup>A</sup>	Permitted Acreage <sup>B</sup> (100's of acres)				
	Active or temporarily inactive		Inactive Phase II bond release		Abandoned		Totals			Federal Lands		State/Private Lands		All Lands
	IP	PP	IP	PP	IP	PP	IP	PP		IP	PP	IP	PP	Total
<b>LANDS FOR WHICH THE STATE IS THE REGULATORY AUTHORITY</b>														
Surface mines	2	53	1	7	94	32	97	92	189	0.0	2.0	34.8	242.2	279.0
Underground mines	0	22	0	14	21	22	21	58	79	0.0	1.7	1.4	9.6	12.7
Other facilities	1	32	0	6	2	6	3	44	47	0.0	0.0	0.1	22.8	22.9
<b>Total</b>	<b>3</b>	<b>107</b>	<b>1</b>	<b>27</b>	<b>117</b>	<b>60</b>	<b>121</b>	<b>194</b>	<b>315</b>	<b>0.0</b>	<b>3.7</b>	<b>36.3</b>	<b>274.6</b>	<b>314.6</b>

Total number of permits:	315
Average number of permits per inspectable unit (excluding exploration sites):	1.00
Average number of acres per inspectable unit (excluding exploration sites):	99.87
Number of exploration permits on State and private lands:	1 On Federal lands <sup>C</sup> : 0
Number of exploration notices on State and private lands:	32 On Federal lands <sup>C</sup> : 0

IP: Initial regulatory program sites  
 PP: Permanent regulatory program sites

<sup>A</sup> Inspectable units include multiple permits that have been grouped together as one unit for inspection frequency purposes by some State programs.

<sup>B</sup> When a single inspectable unit contains both Federal lands and State/Private lands, enter the permitted acreage for each land type in the appropriate category.

<sup>C</sup> 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.

**TABLE 2**

**Inspectable Units**  
As of September 30, 2008

Coal mines and related facilities	Number and Status of Permits								Nbr. of Insp. Units <sup>A</sup>	Permitted Acreage <sup>B</sup> (100's of acres)				
	Active or temporarily inactive		Inactive Phase II bond release		Abandoned		Totals			Federal Lands		State/Private Lands		All Lands
	IP	PP	IP	PP	IP	PP	IP	PP		IP	PP	IP	PP	Total
<b>LANDS FOR WHICH THE STATE IS THE REGULATORY AUTHORITY</b>														
Surface mines	0	0	0	0	4	0	4	0	4	0.0	0.0	1.3	0.0	1.3
Underground mines	0	0	0	0	2	0	2	0	2	0.0	0.0	0.1	0.0	0.1
Other facilities	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Total	0	0	0	0	6	0	6	0	6	0.0	0.0	1.4	0.0	1.4

Total number of permits: 6

Average number of permits per inspectable unit (excluding exploration sites): 1.00

Average number of acres per inspectable unit (excluding exploration sites): 23.33

Number of exploration permits on State and private lands: 0 On Federal lands<sup>C</sup>: 0

Number of exploration notices on State and private lands: 0 On Federal lands<sup>C</sup>: 0

**IP:** Initial regulatory program sites

**PP:** Permanent regulatory program sites

<sup>A</sup> Inspectable units include multiple permits that have been grouped together as one unit for inspection frequency purposes by some State programs.

<sup>B</sup> When a single inspectable unit contains both Federal lands and State/Private lands, enter the permitted acreage for each land type in the appropriate category.

<sup>C</sup> 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.

**TABLE 3**

**State Permitting Activity**  
 As of September 30, 2008

Type of Application	Surface mines			Underground mines			Other facilities			Totals		
	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres <sup>A</sup>	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres
New Permits	5	5	1,250	0	2	94	0	1	60	5	8	1,404
Renewals	5	5		4	2		3	5		12	12	
Transfers, sales, and assignments of permit rights	3	0		1	0		0	1		4	1	
Small operator assistance	0	0		0	0		0	0		0	0	
Exploration permits										0	0	
Exploration notices <sup>B</sup>											14	
Revisions (exclusive of incidental boundary revisions)		68			11			13			92	
Revisions (adding acreage but are not incidental boundary revisions)	0	0	0	0	0	0	0	0	0	0	0	0
Incidental boundary revisions	8	7	34	1	1	5	0	2	2	9	10	41
<b>Totals</b>	<b>21</b>	<b>85</b>	<b>1,284</b>	<b>6</b>	<b>16</b>	<b>99</b>	<b>3</b>	<b>22</b>	<b>62</b>	<b>30</b>	<b>137</b>	<b>1,445</b>

OPTIONAL - Number of midterm permit reviews completed that are not reported as revisions: 19

<sup>A</sup> Includes only the number of acres of proposed surface disturbance.

<sup>B</sup> 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 (excluding bond forfeiture sites)**

RESOURCES AFFECTED	People			Land			Water			Structures		
	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
Blasting	2	0	0	2	0	0	0	0	0	0	0	0
Land Stability	1	0	0	1	1	0	0	0	0	0	0	0
Hydrology	7	0	0	0	0	0	4	3	0	0	0	0
Encroachment	13	0	3	2	4	0	0	3	0	0	0	3
Other	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>23</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>5</b>	<b>0</b>	<b>4</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>

Total number of inspectable units (excluding bond forfeiture sites): 138  
 Inspectable units free of off-site impacts: 127  
 Inspectable units with off-site impacts: 11

**OFF-SITE IMPACTS ON BOND FORFEITURE SITES**

RESOURCES AFFECTED	People			Land			Water			Structures		
	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
Blasting	0	0	0	0	0	0	0	0	0	0	0	0
Land Stability	0	0	0	0	0	0	0	0	0	0	0	0
Hydrology	3	0	0	0	0	0	2	0	1	0	0	0
Encroachment	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>

Total number of inspectable units (only bond forfeiture sites): 177  
 Inspectable units free of off-site impacts: 174  
 Inspectable units with off-site impacts: 3

**TABLE 4**

**OFF-SITE IMPACTS (excluding bond forfeiture sites)**

RESOURCES AFFECTED	People			Land			Water			Structures		
	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
DEGREE OF IMPACT	0	0	0	0	0	0	0	0	0	0	0	0
TYPE OF IMPACT												
Blasting	0	0	0	0	0	0	0	0	0	0	0	0
Land Stability	0	0	0	0	0	0	0	0	0	0	0	0
Hydrology	0	0	0	0	0	0	0	0	0	0	0	0
Encroachment	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER OF EACH TYPE	0	0	0	0	0	0	0	0	0	0	0	0

Total number of inspectable units (excluding bond forfeiture sites): 0  
 Inspectable units free of off-site impacts: 0  
 Inspectable units with off-site impacts: 0

**OFF-SITE IMPACTS ON BOND FORFEITURE SITES**

RESOURCES AFFECTED	People			Land			Water			Structures		
	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
DEGREE OF IMPACT	0	0	0	0	0	0	0	0	0	0	0	0
TYPE OF IMPACT												
Blasting	0	0	0	0	0	0	0	0	0	0	0	0
Land Stability	0	0	0	0	0	0	0	0	0	0	0	0
Hydrology	0	0	0	0	0	0	0	0	0	0	0	0
Encroachment	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER OF EACH TYPE	0	0	0	0	0	0	0	0	0	0	0	0

Total number of inspectable units (only bond forfeiture sites): 6  
 Inspectable units free of off-site impacts: 6  
 Inspectable units with off-site impacts: 0

<b>TABLE 5</b>				
<b>Annual State Mining and Reclamation Results</b>				
Bond release phase	Applicable performance standard	During this Evaluation Year		
		Total acreage released	Acreage also released under Phase I	Acreage also released under Phase II
A	B	C	D	E
Phase I	- Approximate original contour restored - Topsoil or approved alternative replaced	2,208		
Phase II	- Surface stability - Establishment of vegetation	2,519	1,508	
Phase III	- Post-mining land use/productivity restored - Successful permanent vegetation - Groundwater recharge, quality and quantity restored - Surface water quality and quantity restored	2,057	481	1,943
<b>Bonded Acreage<sup>A</sup></b>			<b>Acres during this evaluation year</b>	
Total number of new acres bonded during this fiscal year			1,445	
Number of acres bonded during this fiscal year that are considered re-mining, if available			0	
Number of acres where bond was forfeited during this fiscal year			15	
<b>Bonded Acreage Status</b>		<b>Cumulative Acres</b>		
Total number of acres bonded as of the end of last review period (Sept. 30, 2007) <sup>B</sup>		17,852		
Total number of acres bonded as of the end of this review period (Sept. 30, 2008) <sup>B</sup>		19,297		
Sum of acres bonded that are between Phase I bond release and Phase II bond release as of Sept. 30, 2008 <sup>B</sup>		4,084		
Sum of acres bonded that are between Phase II bond release and Phase III bond release as of Sept. 30, 2008 <sup>B</sup>		1,722		
<b>Disturbed Acreage</b>		<b>Acres</b>		
Number of Acres Disturbed during this fiscal year		634		
Number of Acres Disturbed at the end of the fiscal year (cumulative)		0		
<p><sup>A</sup> Bonded acreage is considered to approximate and represent the number of acres disturbed by surface coal mining and reclamation operations.</p> <p><sup>B</sup> Bonded acres in this category are those that have not received a Phase III or other final bond release (State maintains jurisdiction).</p>				

Brief explanation of columns D & E. The States will enter the total acreage under each of the three phases (column C). The additional columns (D & E & E) will "break-out" the acreage among Phase II and/or Phase III. Bond release under Phase II can be a combination of Phase I and II acreage, and Phase III acreage can be a combination of Phase I, II, and III. See "Instructions for Completion of Specific Tables," Table 5 for example.

**TABLE 6**

**State Bond Forfeiture Activity**  
 (Permanent Program Permits)

Bond Forfeiture Reclamation Activity by SRA	Number of Sites	Dollars	Acres
Sites with bonds forfeited and collected that were unreclaimed as of Sept. 30, 2007 (end of previous fiscal year) <sup>A</sup>	4		110
Sites with bonds forfeited and collected during Fiscal Year 2008 current fiscal year)	1	\$ 114,400	15
Sites with bonds forfeited and collected that were re-permitted during Fiscal Year 2008 (current fiscal year)	0		0
Sites with bonds forfeited and collected that were reclaimed during Fiscal Year 2008 (current fiscal year)	0		0
Sites with bonds forfeited and collected that were unreclaimed as of Sept. 30 2008 (end of current fiscal year) <sup>A</sup>	5		125
Sites with bonds forfeited but uncollected as of Sept. 30 2008 (end of current fiscal year)	0		0
<b>Surety/Other Reclamation (In Lieu of Forfeiture)</b>			
Sites being reclaimed by surety/other party as of Sept. 30, 2007 (end of previous fiscal year) <sup>B</sup>	0		0
Sites where surety/other party agreed to do reclamation during Fiscal Year 2008 (current fiscal year)	0		0
Sites being reclaimed by surety/other party that were re-permitted during Fiscal Year 2008 (current fiscal year)	0		0
Sites with reclamation completed by surety/other party during Fiscal Year 2008 (current fiscal year) <sup>C</sup>	0		0
Sites being reclaimed by surety/other party as of Sept. 30, 2008 (current fiscal year) <sup>B</sup>	0		0
<sup>A</sup> Includes data only for those forfeiture sites not fully reclaimed as of this date <sup>B</sup> Includes all sites where surety or other party has agreed to complete reclamation and site is not fully reclaimed as of this date <sup>C</sup> This number also is reported in Table 5 as Phase III bond release has been granted on these sites			

**TABLE 7**

**State Staffing**

(Full-time equivalents at end of evaluation year)

Function	FY 2008
Regulatory Program	
Permit Review	11.00
Inspection	10.00
Other (administrative, fiscal, personnel, etc.)	13.00
Regulatory Program Total	34.00
AML Program Total	0.00
<b>Total</b>	<b>34.00</b>

**TABLE 8**

**Funds Granted To Tennessee  
 BY OSM**  
 (During the Current Fiscal Year)  
 (Actual Dollars, Rounded to the Nearest Dollar)

Type of Funding	Federal Funds Awarded During Current Evaluation Year	Federal Funding as a Percentage of Total Program Costs
Regulatory Funding		
Administration and Enforcement Grant	\$ 0	0.00 %
Other Regulatory Funding, if applicable	\$ 0	0.00 %
Subtotal	\$ 0	
Small Operator Assistance Program	\$ 0	100 %
Abandoned Mine Land Reclamation Funding <sup>A</sup>	\$ 1,933,416	100 %
<b>Totals</b>	<b>\$ 1,933,416</b>	

<sup>A</sup> Includes funding for AML Grants, the Clean Streams Initiative and the Watershed Cooperative Agreement Program.

**TABLE 9**

**State Inspection Activity  
 During Current Fiscal Year**

Inspectable Unit Status	Number of Inspections Conducted	
	Complete	Partial
Active <sup>A</sup>	441	910
Inactive <sup>A</sup>	117	41
Abandoned <sup>A</sup>	27	0
<b>Total</b>	<b>585</b>	<b>951</b>
<b>Exploration</b>	<b>60</b>	<b>50</b>

<sup>A</sup> Use terms as defined by the approved State program.

**TABLE 9**

**State Inspection Activity  
 During Current Fiscal Year**

Inspectable Unit Status	Number of Inspections Conducted	
	Complete	Partial
Active <sup>A</sup>	0	0
Inactive <sup>A</sup>	0	0
Abandoned <sup>A</sup>	0	0
<b>Total</b>	0	0
<b>Exploration</b>	0	0

<sup>A</sup> Use terms as defined by the approved State program.

**TABLE 10**

**State Enforcement Activity**

During Current Evaluation Year

Type of Enforcement Action	Number of Actions <sup>A</sup>	Number of Violations <sup>A</sup>
Notice of Violation	46	64
Failure-to-Abate Cessation Order	9	16
Imminent Harm Cessation Order	5	6

<sup>A</sup> Do not include those violations that were vacated.

**TABLE 10**

**State Enforcement Activity**  
 During Current Evaluation Year

Type of Enforcement Action	Number of Actions <sup>A</sup>	Number of Violations <sup>A</sup>
Notice of Violation	0	0
Failure-to-Abate Cessation Order	0	0
Imminent Harm Cessation Order	0	0

<sup>A</sup> Do not include those violations that were vacated.

**TABLE 11**

**Lands Unsuitable Activity**

During Current Fiscal Year

	Number	Acreage
Number Petitions Received	0	
Number Petitions Accepted	0	
Number Petitions Rejected	0	
Number Decisions Declaring Lands Unsuitable	0	0
Number Decisions Denying Lands Unsuitable	0	0