

**Annual Report of the
U.S. Department of the Interior
Office of Surface Mining**

Fiscal Year 1990



United States Department of the Interior

Manuel Lujan, Jr., Secretary of the Interior

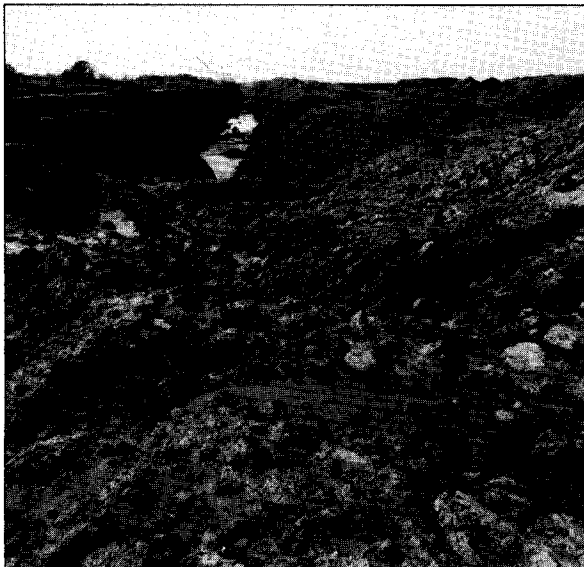
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Office of Surface Mining

Harry M. Snyder, Director

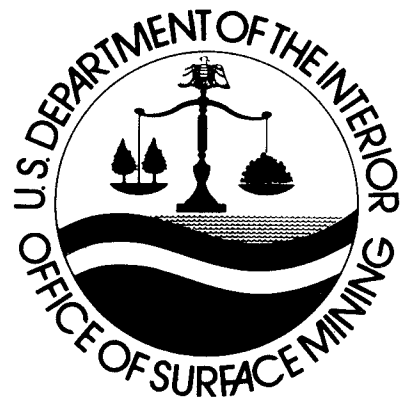
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(COVER PHOTO) Reclaimed mine land at the Texas Utilities Mining Company, Monticello-Winfield North lignite mine, near Mount Pleasant, Texas. Looking much like unmined land in the area, this 439 acre post-mining pasture land of coastal bermuda grass has yielded 1.4 tons/acre forage production and has supported 94 cattle/year since grazing was begun in 1983. During mining the reclaimed land shown on the cover resembled the scene in the photo to the left. With seven mines producing more than 29 million tons of coal per year, the Texas Utilities Mining Company is one of the country's largest. Since mining began in 1971, approximately 24,000 acres have been mined and reclaimed by Texas Utilities.

**Office of Surface Mining
Annual Report
Fiscal Year
1990**



**United States Department of the Interior
Office of Surface Mining Reclamation and Enforcement
Washington, D.C. 20240
January 1991**

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1. INTRODUCTION

This report was compiled for the President and the Congress as required by Section 706 of the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The report describes the operations of the Interior Department's Office of Surface Mining Reclamation and Enforcement (OSM) for the period October 1, 1989, through September 30, 1990 -- fiscal year 1990¹. Included in this report are activities regarding Title IV, Abandoned Mine Reclamation; Title V, Control of the Environmental Impacts of Surface Coal Mining; Title VI, Designation of Land Unsuitable for Noncoal Mining; and Title VII, Administrative and Miscellaneous Provisions.

SMCRA responsibilities of other bureaus or agencies are omitted from this report. These responsibilities include Title III, the Mining and Mineral Research Institutes Program, which is administered by the U.S. Bureau of Mines; Titles VIII and IX, the University Coal Research Laboratories and the Energy Resource Graduate Fellowships, which are administered by the Secretary of Energy; and Section 406, the Rural Abandoned Mine Program (RAMP), which is administered by the Secretary of Agriculture. Information about these activities is reported directly to Congress by the organizations responsible.

The report format is similar to the combined 1988-89 OSM annual report. However, it differs in appearance from earlier OSM annual reports, which were written not only to meet the reporting requirement to Congress, but also for general distribution to the public. This report, containing current data and only brief background information, was prepared primarily for the President, the Congress, and the State regulatory authorities. The condensed format and more specific focus have resulted in publication cost savings and strict adherence to the standards of the Joint Committee on Printing for federal agency annual reports. The information in this report is organized to facilitate either an examination of specific elements or a review of the entire program.

Section 2 summarizes OSM's principal accomplishments and outlines the issues confronting the agency during 1990. Although these are further described with text and statistics in the body of the report, they are presented here to give the reader both an overview and summary of OSM's activities during the past fiscal year.

Sections 3 through 6 describe OSM's administration of the SMCRA Regulatory and Abandoned Mine Land Programs. Statistics are provided in tabular form. Where appropriate, graphs show current and historic levels so

that trends since the beginning of the program can be easily followed.

Section 7 lists citations of OSM technical publications reports and video programs developed during 1990. This eliminates extraneous text and should aid readers requiring more detailed information about OSM operations. Some of these materials are unpublished; however, machine copies are available from OSM on request.

Section 8 provides a directory of the 32 OSM office locations.

Information about OSM activities, news releases, and publications, or additional copies of this report, may be obtained from:

Public Affairs
Office of Surface Mining
1951 Constitution Ave., NW
Washington, D.C. 20240
(202) 208-2553

1. Throughout this document, "1990" refers to FY 1990, unless otherwise noted.

2. EXECUTIVE SUMMARY

A new director and management team made 1990 a significant year for OSM. Much of the year's success can be attributed to two things: first, a new management philosophy for solving OSM's problems—one that defines and analyzes the issues with the goal of solving them; and, second, the resolution of some long-standing problems that had slowed OSM's progress toward full implementation of the Surface Mining Act. In the past, the continued inability of OSM to address sensitive issues effectively fueled frequent, protracted litigation, in addition to contributing to a major credibility problem for the agency. In 1990, OSM involved interested parties in rulemaking activities by moving toward the consensus necessary to issue rules that should be less subject to legal challenge. The following are the principal areas where OSM expended major effort during 1990:

VALID EXISTING RIGHTS (VER)

From the beginning, OSM's efforts to define valid existing rights to mine in protected areas has been fraught with controversy. In 1990 a new approach was developed to deal with VER.

In April, OSM held a symposium on VER in Washington D.C.—a cooperative effort with the American Bar Association and the Mineral Law Center of the University of Kentucky. The symposium examined the political, policy, and legal aspects of VER. Noted legal scholars, judges, and representatives of both the coal industry and national environmental associations participated in a forum for the discussion of ideas and proposals for dealing with VER. This exchange prepared the groundwork for development of a policy on VER; a rule designed to balance environmental concerns with private property rights will be proposed in 1991.

RULEMAKING RESULTING FROM SAVE OUR CUMBERLAND MOUNTAINS AGREEMENT

OSM is currently developing draft rule language to implement the January 1990 agreement settling litigation with the environmental organization Save Our Cumberland Mountains over the operation of the computerized Applicant Violator System (AVS). The AVS is intended to track operators with uncorrected violations so that OSM can block them from receiving additional permits. The new rules establish the State regulatory authorities' responsibility to query the AVS computer system and implement procedures that give permit applicants the opportunity to rebut ownership and control links. In addition, OSM is undertaking rulemaking to provide for the assessment of

individual civil penalties against people who have been served notices of potential liability and who have not demonstrated that they have taken all reasonable steps to effect abatement of violations.

TECHNICAL STANDARDS FOR BACKFILLING AND GRADING, MULTIPLE SEAM MINING, AND MOUNTAINTOP REMOVAL

OSM is also taking a different approach to rulemaking on other important and complex issues. Since March 13, 1979, when permanent program regulations were issued, OSM has operated without contemporaneous reclamation standards applicable to backfilling and grading, multiple seam mining, and mountain top removal performance standards.

Instead of beginning by proposing a rule, OSM conducted an outreach effort that began with a Notice of Inquiry in the Federal Register in April 1990. The Notice described both the problems and the principles under which OSM thought the problems should be solved. Technical staff presented information at meetings in Charleston, West Virginia, and Knoxville, Tennessee.

OSM also utilized the Mine Safety and Health Administration's open-channel broadcast system. In May 1990, OSM presented a two-hour session that included a statement by the Director, a videotape of representative sites, and presentations by OSM's technical staff. Viewers tuned in via satellite dish and were able to call a toll-free number to comment on what they thought rules should include or to ask questions about the topics. There was a good response to this interactive broadcast.

WETLANDS

The creation of wetlands is a cornerstone of President Bush's environmental policy. As an integral part of this policy, OSM has reviewed its regulations as they apply to wetlands, and is analyzing how permitting and bonding rules can be revised to encourage the creation of wetlands as a postmining land use. Outreach on wetlands issues with environmental groups, industry, and State and federal agencies is currently being completed, and proposed rule changes are expected early in 1991.

ABANDONED MINE LAND RECLAMATION FUND REAUTHORIZATION

OSM, through the Administration, supported reauthorization. Within the Department of the Interior, work on proposed legislation to develop an Administration recommendation for the Congress was being completed at the time Congress enacted a three-year extension of the program.

TECHNOLOGY TRANSFER

State regulatory authorities have shown great interest in technology transfer, an area that demonstrated continued progress in 1990. During the year OSM sponsored a number of initiatives to further the exchange of technical information, and technical reports and articles resulting from OSM research projects were catalogued by the technical libraries located in OSM's Washington, D.C., Pittsburgh, and Denver offices.

Since October 1989, OSM has sent the results of 204 research projects to the National Technical Information Service (NTIS) for inclusion in its collection. These reports account for virtually all of OSM's Title V research projects. Results of Title IV research projects are now also being sent to the NTIS.

One of OSM's major technology transfer initiatives is the Technical Information Processing System--TIPS. TIPS is a technical and scientific computer system developed by OSM to provide surface coal mine regulators with analytical tools that can help them make technically sound decisions. TIPS provides analytical capabilities for a full range of engineering, hydrologic, and scientific applications required in mine permitting, abandoned mine land reclamation, and related projects. TIPS work stations are now located in all the primacy States.

OVERSIGHT

During the past year, OSM successfully concluded the prototype experiment of State internal controls and data collection and management systems, and conducted reviews of overall reclamation success in the four test States of Alabama, Illinois, Pennsylvania, and Wyoming. In addition to existing requirements, most aspects of the prototype experiment will be continued on a routine basis.

In 1990, OSM continued efforts to develop more meaningful and objective oversight measurement techniques. States were encouraged to develop management systems and internal controls to monitor and enhance their own performance.

In 1990, OSM modified and expanded the tabular data requirements of the annual evaluation report to consolidate agency data reporting requirements, improve accuracy and national consistency, respond to Congressional appropriation language, and meet internal and external needs. In addition, OSM expanded the opportunities for State and tribal comments on the various draft versions involved in developing the official annual evaluation reports. A more complete, user-friendly format for the annual evaluation reports was developed by encouraging the use of graphics and by requiring inclusion of an explanatory preface, a discussion of all previously unresolved problems, and an appendix containing the critical program element review schedule.

REORGANIZATION

In 1990, OSM completed a review of its existing organizational structure and made changes that will significantly improve the agency's ability to achieve its mission. These are relatively minor changes compared with past OSM reorganizations, and the focus was on ensuring consistent application of policies across the Nation.

One of the most significant aspects of the reorganization was a change in the reporting relationship between OSM Headquarters and the field. Field office directors will have increased accountability for decisions in their areas of responsibility and will report directly to a new Assistant Director for Field Operations in Washington rather than through OSM's field support centers in Pittsburgh and Denver. OSM's Pittsburgh and Denver offices will continue to support the field offices and the States by providing technical expertise. These organizational changes are expected to result in improved responsiveness to States' needs.

1990 has been a year of achievement, stability, and new management direction. This new direction is best summed up in a statement by OSM Director Harry Snyder: "There is a tendency to judge OSM administrations in terms of whether they sided with the coal industry or the environmental community. I'm afraid those kinds of judgments will continue to be made. But I sincerely hope that our efforts will be viewed in a more balanced light. The only side we want to be on is the side of fair and equitable achievement of the goals of the Surface Mining Act."

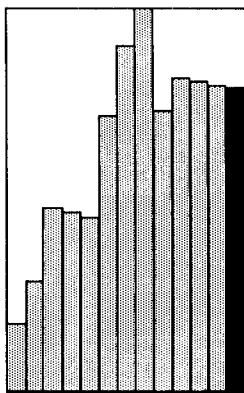
3. PROGRAM ADMINISTRATION & FINANCE

LEGISLATIVE INITIATIVES

The Office of Surface Mining provided legislative drafting services requested by the 101st Congress regarding reclamation through remining; the Centralia, Pennsylvania, mine fire; and authorization language to provide for certain uses of the Abandoned Mine Land (AML) fund.

House Resolution 4053, to amend SMCRA to provide for the remining of certain abandoned mine lands, was introduced by Congressman Rahall on February 21, 1990. H.R. 4053 was co-sponsored by Congressmen Boucher, Clinger, and Murphy. An amendment to Title V of SMCRA would assist small surface coal operators. The proposal, S. 1768, was introduced by Senator McConnell and co-sponsored by Senator Ford on October 18, 1989. No action was taken by the 101st Congress on either of these amendments.

BUDGET AND APPROPRIATIONS



OSM Budget 1978-90

The Department of the Interior and related agencies appropriations act of 1990, Public Law 101-121, signed by President Bush on 10/23/89, appropriated from the Treasury \$102,728,000 for FY 1990 regulatory and enforcement activities, plus an amount equal to the 1990 performance bond forfeitures. The bond forfeitures in 1990 were \$221,151. The appropriation language contained the following provisions:

- Federal civil penalties collected under Section 518 of SMCRA can be used to reclaim lands mined and abandoned after August 3, 1977. \$772,848 was collected from civil penalties in 1990, and \$679,043 was used for reclamation of these post-August 3, 1977, lands.
- The Secretary of the Interior must abide by and adhere to the terms of the Settlement Agreement in *NWF v. Miller*, C.A. No. 86-99 (E.D. Ky).
- Travel and per diem expenses of State and tribal personnel attending OSM-sponsored training can be paid from these appropriations.

OSM adhered to all terms and provisions.

In addition, \$192,772,000 was appropriated from the AML Fund, and up to 20 percent of the funds recovered from the delinquent debts was authorized to be used to con-

tinue collection of these debts. In 1990 the AML delinquent debt collection was \$4,856,044, and \$900,000 (19 percent) was spent on additional debt collection. The following provisions were included in the AML appropriation:

- Reclamation funding to States pursuant to Section 406(a) may not exceed 15 percent for administrative expenses.
- States shall not receive funding if they have not agreed to participate in the nationwide applicant violator system (AVS).
- 50 percent of the annual AML grant may be denied if the Secretary finds the State(s) failing to enforce provisions of the approved State regulatory program.

All of the provisions were met.

Table 1 provides a 1978-1990 appropriation history.

REORGANIZATION

On August 3, 1990, the Interior Department approved a new organizational structure for OSM, which is now essentially complete. This new structure was achieved without involuntary geographic reassignments of staff and has streamlined the organization for more effective operation.

Between August 3, 1990, and the end of the fiscal year, there were 10 voluntary geographic moves completed and/or approved. The estimated cost for relocation allowances was \$450,000. There have been no other tangible costs associated with the restructuring. Also during the year, a hiring freeze, coupled with an aggressive outplacement program and "Early-Out" retirement authority, reduced employment from a peak of 1,149 to 1,042, which was 44 below ceiling.

Personnel actions effected since August 3, when placement in the new structure began, include the following:

- 47 reassignments (includes 10 relocations)
- 46 promotions
- 6 Early-Out retirements
- 7 optional retirements
- 10 voluntary transfers to other federal agencies
- 6 resignations
- 14 appointments (new outside hires)
- 16 GS/GM 13-15 positions eliminated

Table 1
OSM Appropriation History
1978-1990
(Dollars in Thousands)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Regulation & Technology													
State Regulatory Grants	\$8,600	\$18,900	\$21,680	\$35,000	\$24,432	\$32,150	\$38,100	\$36,734	\$35,387	\$45,110	\$40,359	\$41,910	\$41,910
Regulatory Program Operations									17,704	19,221	20,078	20,310	20,450
Tech. Services, Training & Research									12,642	13,681	13,670	13,470	13,026
Kentucky Settlement Agreement											3,885	4,425	3,772
Assessments and Collections									6,938	7,929	10,502	8,981	9,100
Program Operations & Inspections						10,493	13,776	23,729					
State & Federal Programs	3,300	4,007	14,352	22,492	15,246								
Inspection & Enforcement	7,520	13,360	16,622	15,717	12,193								
Technical Support	3,260	6,872	7,033	6,841	6,644	10,903	12,551	12,890					
Applied Research	2,500												
Mineral Institutes	5,700	5,800	10,000	9,629									
SOAP		5,000	15,000										
General Administration						7,332	6,268	6,994	8,103	14,062	13,831	11,999	12,970
Executive Direction									[1,359]	[1,664]	[1,677]	[1,761]	[1,589]
Administrative Support									[3,425]	[6,297]	[6,856]	[5,649]	[6,487]
General Services									[3,319]	[6,101]	[5,209]	[4,589]	[4,894]
Subtotal	30,880	53,939	84,687	89,679	58,515	60,878	70,695	80,347	80,774	100,003	102,125	101,095	101,228
Abandoned Mine Reclamation Fund													
State Reclamation Grants		10,000	25,000	26,200	46,936	173,528	233,100	236,840	149,441	160,600	159,660	151,660	145,780
Fund Management	4,784	8,680	9,124	9,987	6,794	5,131	6,498	6,599					
Fee Compliance									2,680	3,482	5,588	5,681	5,720
Reclamation Program Operations	15,875	21,835	39,376	29,364	41,680	23,064	26,452	39,371	28,715	24,592	13,662	19,005	22,264
AML - Technical Support	998	808	1,237	1,652	1,584	991	1,221	1,955					
RAMP	5,000	10,128	10,106	10,280	18,339	6,155	10,582	9,800	9,019	9,400	15,000	12,000	12,000
SOAP	10,000	10,000	10,000	5,000			(11,499)	(2,000)	2,949			2,000	2,000
General Administration						4,210	4,874	4,376	4,473	5,846	5,470	4,814	5,008
Executive Direction									[794]	[825]	[880]	[866]	[873]
Administrative Support									[1,912]	[1,992]	[2,311]	[1,692]	[1,711]
General Services									[1,767]	[2,829]	[2,279]	[2,256]	[2,424]
Subtotal	36,647	61,451	94,843	82,485	115,333	213,079	271,228	296,941	197,277	203,720	199,380	193,160	192,772

Total	\$67,527	\$115,390	\$179,530	\$177,964	\$173,848	\$273,957	\$341,923	\$377,288	\$278,051	\$303,723	\$301,505	\$294,255	\$294,000
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Operating under this new organizational structure, OSM has improved responsiveness to its field offices, and, through them, to its clients. In addition, a secondary benefit of reorganization will be to stabilize the budget, which will improve operations by enabling managers to remain aware of the amount of resources available to achieve OSM's mission.

DEBT MANAGEMENT

OSM continues to process civil penalty debt. In 1990, OSM collected approximately \$800,000 and reclassified as uncollectible over \$7 million. The outstanding debt balance at the end of 1990 was \$38 million. Records of uncollectible debts are retained in OSM's Applicant Violator System to prevent violators from receiving new mining permits.

In 1990, the collection of delinquent AML fees continued to be an OSM Headquarters function. The AML fee program collection rate is currently over 99 percent. Since inception of OSM, the agency has collected over \$2.6 billion in AML fees. The unpaid principal for the same period amounted to about \$21 million. During 1990, OSM collected about \$8 million in delinquent AML fees (including \$3.1 million in audit fees). The current outstanding AML debt balance is approximately \$58 million, including \$13 million in audit debt. About 10 percent of the delinquent AML fees are collected as a result of permit blocks flagged by the Applicant Violator System. OSM has also initiated a new policy to permit the issuance of a Notice of Violation or Failure-to-Abate cessation order for non-payment of AML fees.

The total amount outstanding for civil penalty, AML, and audit debt combined is approximately \$96 million. Over 70 percent of this total, or \$67 million (excluding bankruptcies), has been referred to the Interior Department Solicitor for legal action. Of the balance remaining, \$19 million (20 percent) is owed by companies in bankruptcy. OSM is currently processing \$10 million of remaining delinquent AML, audit, and civil penalty debt. For both the civil penalty and AML delinquent debt programs, OSM utilizes private contractors to attempt collection. At the end of 1990, about 20 percent of the debt was in the collection process with private collection agencies.

NET WORTH REPORTS

OSM also uses private contractors to determine the net worth of individuals and businesses with unpaid obligations. Net worth reports are requested to determine the ability of businesses and individuals to pay money owed to OSM for unpaid civil penalties and AML fees, as well as their ability to pay for the cost of reclaiming old mining sites. Net worth information is also used by legal staff to aid in determining whether litigation would be cost-effective.

During 1990, OSM obtained net worth reports on 359 companies and individuals.

LEGAL ACTION AGAINST DEBTORS

When OSM exhausts its avenues of debt collection, delinquent debts are referred to the Interior Solicitor for legal action. During 1990, OSM referred about 400 civil penalty cases worth over \$9 million, and 1,800 AML cases worth \$11 million, to the Solicitor's Office.

FEE COMPLIANCE AUDIT

OSM maintains regional and area audit offices in 12 cities throughout the coal-producing regions of the United States. Through audits and related activities conducted by these offices, OSM provides reasonable assurance that coal operators are properly reporting the quantity of coal that is produced and subsequently sold, used, or transferred, and on which AML fees are owed to the government. In 1990, OSM conducted 430 audits and audit-related projects and identified \$7.3 million in underreported or nonreported AML fees. OSM collected \$3.1 million in audit-related debt during the year.

FINANCIAL ACCOUNTING SYSTEM

In early 1990, the Department of the Treasury notified all federal agencies of the planned discontinuance of the Treasury Financial Communication System (TFCS) on December 31, 1990. TFCS was the system that all States and Tribes used to receive their grant funds (drawdowns). After examining the viable alternatives for continuing drawdowns, OSM decided to use its own accounting system (ABACIS) as the servicing network.

A Grants Information Fund Tracking System (GIFTS) module will be available as part of the ABACIS Service Network early in 1991. This will allow grantees access to more detailed information on their grants than is currently available.

TECHNICAL INFORMATION PROCESSING SYSTEM (TIPS)

The Technical Information Processing System (TIPS) is a computer system which has been jointly developed by OSM and the States. TIPS provides State surface mine regulatory authorities with a comprehensive set of analytical tools to aid in technical decision-making processes related to SMCRA. TIPS gives technical specialists automated software support for the full range of engineering, hydrological, and scientific applications required in mine permitting, abandoned mine land reclamation projects, designation of lands unsuitable for mining, and NEPA compliance.

In 1990, all State regulatory authorities with primacy under SMCRA became fully operational with TIPS. Several states determined that the value of TIPS was so great that they purchased additional TIPS work stations with their own funds. Pennsylvania has installed TIPS work stations in all seven of its field offices; West Virginia has installed TIPS-like work stations in each of its six field offices; and New Mexico has installed two additional TIPS work stations for AML support. During 1990, OSM provided the States with extensive additional training on the use of TIPS, including use of the state-of-the-art geologic modeling software and a multi-dimensional geographic information application, which is resident at the TIPS minicomputer facility in Denver. The objectives of TIPS are:

To enhance technical effectiveness and user efficiency. Broader use of advanced computer applications through TIPS has increased the technical knowledge and capabilities of the States and OSM. The use of proven computer applications has allowed conclusive technical and scientific results to be achieved faster and more efficiently than non-automated methods. This result in significant time savings in making SMCRA-related technical findings available.

To provide technology transfer between TIPS users and industry. Certain intricate applications, such as determining reclamation feasibility, sediment pond design, and ground water modeling, require training and support to be used effectively. TIPS, through user support and training provided by OSM, has been used to solve complex mining and reclamation problems while enabling other interested parties to share the results. In addition, the computer provides a common medium whereby complex data can be submitted to the State regulatory authority on a magnetic medium for faster and more efficient review.

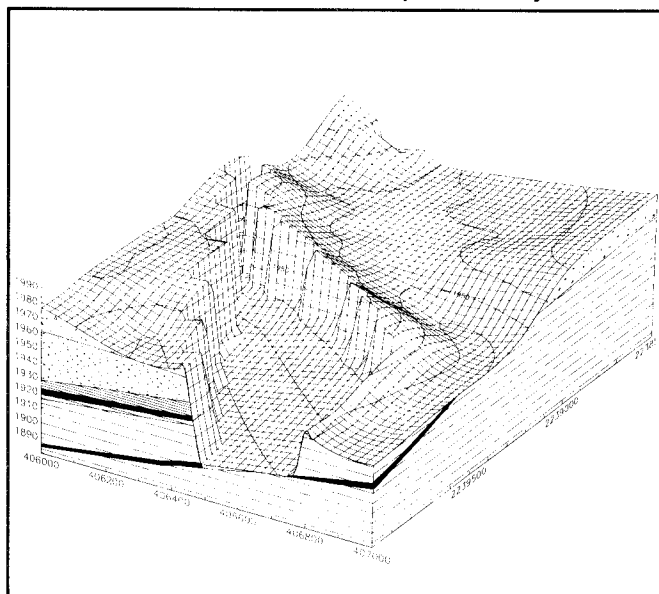
To improve communication with outside interest groups and the public through graphic displays of complex technical data. Complex issues, such as NEPA compliance, evaluation of unsuitability petitions, and experimental practices, have been clarified and explained through the use of computer-assisted mapping and computer graphics. Technical concepts on such topics as blasting, hydrology, and mine subsidence are more easily understood when presented graphically.

To contribute to fiscal responsibility in coal mining regulation and reclamation. As a single, adaptive computer system which is coordinated and supported and allows the selection of alternatives, TIPS has encouraged a more cost-effective approach to managing the technical data required to regulate coal mining.

In 1990, several large projects were completed by OSM with the use of TIPS. These include the Black Mesa-

Kayenta EIS and permitting effort, the Flat Fork Unsuitability EIS, and the New River Gorge National River Minerals Resource Assessment. Project-specific assistance on the use of TIPS was provided to Alaska, Colorado, Iowa, Kansas, Missouri, Montana, New Mexico, Ohio, Pennsylvania, and West Virginia. The TIPS staff was invited to provide workshops and demonstrations to industry and the environmental community on the use of TIPS applications for performing environmental analysis of impacts related to surface mining, ground water pollution, and hazardous waste remediation. These workshops included presentations in Denver to representatives from Australia, Brazil, Canada, India, and Venezuela. TIPS staff is currently working with the Hungarian government to assist Hungary in developing automated techniques for assessing ground water contamination.

Initial feasibility studies were performed for the upgrading of TIPS to conform to the Department of the Interior computer standard and for replacing the existing minicomputer at the TIPS National Computer Facility in Denver.



The single-purpose SMCRA support systems currently in place were originally developed independently of one another and at different stages in OSM's existence, without the benefit of common ground rules regarding the administration of data and without the compatible interfaces available in today's computer hardware and software products. Lacking common threads of a blueprint strategy to follow for a global SMCRA data administration plan and modern specifications for hardware and software interfaces, the current systems evolved into separate computer mainframes and into diverse, incompatible programming languages. The SMCRA Modernization Plan was conceived as a better way for OSM to refocus on efficient program enforcement and mission support.

The SMCRA Modernization Plan will be followed over the next several years until OSM's information system support capability matches the common architecture blueprint established during SMP planning efforts for 1990 and 1991. The initial phase of this architecture, completed during 1989, analyzed the mission of SMCRA and established the need for common data administration and modern hardware and software interfaces. A geographically distributed blueprint architecture was selected to capitalize on the SMCRA strength of enforcement through the States' program primacy at the regulatory authorities' level of data capture and validation. OSM's oversight responsibility includes establishing the standards and ground rules for SMCRA data definition and setting the specifications for modern hardware and software interfaces. These initiatives were begun in 1990 and are to be completed during 1991. Once the conceptual work of refining the modernized architectural blueprint is completed during 1991, OSM will be positioned to redirect its annual mission support operations and maintenance spending. This will move from patching and band-aiding existing systems to reshaping modern mission support systems that are portable across different modern computer hardware and software languages and capable of operating with other OSM mission support systems. Overall, the benefits of the SMCRA Modernization Plan will increase the accuracy, credibility, and timeliness of mission support information at OSM, while improving cost containment and reducing long-term costs.

APPLICANT VIOLATOR SYSTEM (AVS)

Section 510(c) of SMCRA and corresponding regulations (30 CFR 773) prohibit the issuance of permits to applicants with previous uncorrected violations and to applicants related to violators through ownership and control. The Applicant Violator System was developed to assist OSM and the State regulatory authorities in complying with these requirements. AVS identifies possible associations between permit applicants or their affiliates and uncorrected violations of SMCRA. This information is

then used by OSM and State authorities, who determine whether a permit should be issued or denied. AVS was redesigned during 1990. The new system became available nationally on May 1. Overall, user comments have been favorable. The new version is easier to use and produces recommendations much more quickly than the previous system did.

In January, the Department of the Interior signed a settlement agreement with two environmental plaintiffs. Under this agreement, OSM will make further enhancements in AVS, conduct research to ensure that all individuals and companies who should be listed as violators on AVS are listed, and propose regulations governing principles of ownership and control and how companies and individuals can rebut or refute identified ownership and control links. OSM has already implemented many of the agreement's requirements, such as negotiating a Memorandum of Understanding with the Tennessee Valley Authority (TVA) under which TVA will use AVS to check the violation status of potential suppliers of coal. Data from the Labor Department's Mine Safety and Health Administration and the Energy Department's Energy Information Administration have been made available on-line to AVS users.

AVS is being used effectively to ensure that individuals and companies associated with outstanding violations of the Surface Mining Act, or with outstanding penalties or fees, are not being issued new permits to mine. In some instances, violators have agreed to abate violations or pay fees owed in order to remove the AVS permit block.

MONITORING POTENTIAL CONFLICTS OF INTEREST

Sections 201(f) and 517(g) of SMCRA prohibit any federal or State employee "performing any function or duty under this Act" from having "direct or indirect financial interest in underground or surface coal mining operations." In monitoring these provisions, OSM provides oral and written guidance and assistance to personnel of affected State and federal agencies, including OSM's own employees. Through this process, OSM has increased awareness and understanding of these provisions, and violations have steadily decreased. In 1990, four divestiture orders were issued and four remedial actions were taken. All cases were favorably resolved.

GOVERNMENT ACCOUNTING OFFICE (GAO) AUDITS

During 1990, GAO initiated four audits of OSM functions and completed one follow-up report containing no recommendations for improvements. Table 2 lists the audits active during 1990 and their status.

TABLE 2
ACTIVE AND COMPLETE GAO REVIEWS 1990

Audit or Review Title	Status
Interior Is Acting to Improve Its Applicant Violator System	Completed, GAO/AFMD-90-63
Interior's Automated Information System and Automation Issues	Active
OSM's Reconciliation of the AML Inventory	Active
OSM's Efforts to Improve Its Applicant Violator System	Active
OSM's Methodology to Determine the Cost of Purchasing Mineral Rights	Active
The Department's Efforts to Implement the Federal Financial System (FES)	Active
State and Local Nonpoint Pollution Control Efforts	Active
Subsidence Insurance	Active
Interior's Information Resources Management Program	Active
Abandoned Mine Land Fund	Active
Evaluate State Certifications on Coal Related Reclamation Projects	Active

FIGURE 2
OSM ORGANIZATION

The Office of Surface Mining Reclamation and Enforcement

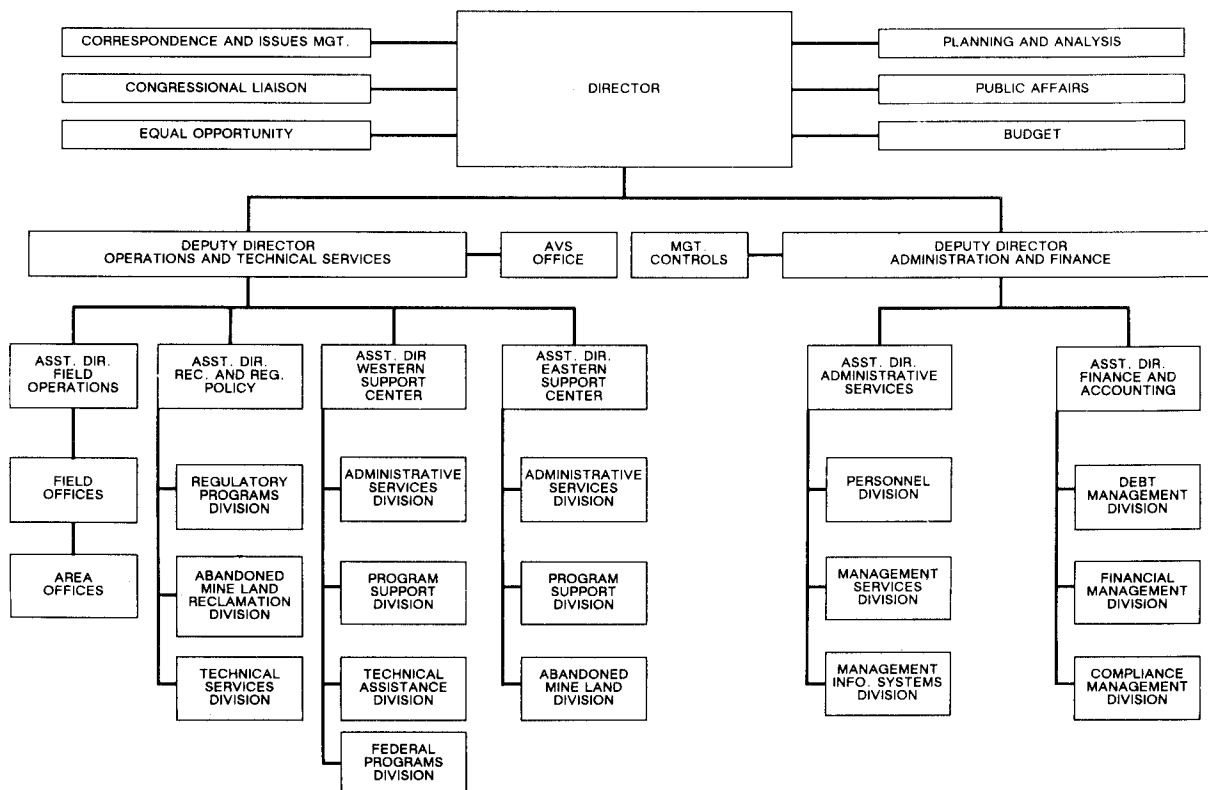
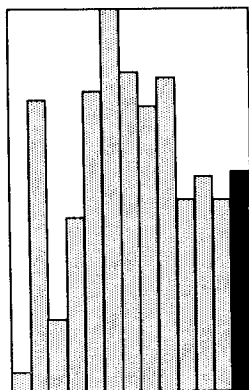


FIGURE 3
OSM OFFICE LOCATIONS



4. REGULATORY ENFORCEMENT

REGULATORY DEVELOPMENT



Final Rulemaking
Actions 1978-90

SMCRA charges OSM with responsibility for publishing rules and regulations as necessary to carry out the purposes of the Act. OSM's permanent regulatory program and related rules provide the fundamental mechanism for ensuring that the goals of SMCRA are achieved. A major objective of OSM is to establish a stable regulatory program by improving the regulatory development process and by obtaining a broad spectrum of viewpoints on rule-making activities.

Although 1990 was not a year of extensive rulemaking, several complex and controversial rules were finalized. Throughout this period, the rulemaking process included discussions with representatives of the coal mining industry, environmental groups, and State regulatory authorities to obtain their input and suggestions. Table 3 describes the final regulations published in the Federal Register during 1990. Each regulation is identified with the Federal Register citation by volume and page number, Code of Federal Regulations (CFR) number, effective and published dates.

RULE CHALLENGES

During 1990 the government defended a large number of

OSM regulations in suits brought both by environmental and industry groups. Table 4 summarizes decisions by the U.S. District Court for the District of Columbia that upheld or dismissed challenges to the Secretary's actions concerning OSM regulatory matters.

STATE PROGRAM AMENDMENTS

Following their initial promulgation in 1979, the federal regulations governing permanent regulatory programs were completely revised in 1981-83 to allow States and operators greater flexibility in the means by which they achieve compliance with SMCRA. In response to extensive litigation and agency policy, these rules have been further revised, beginning in 1985 and continuing to the present.

Under 30 CFR 732.17(e), the Director must notify States whenever, as a result of changes in SMCRA or federal regulations, State programs are no longer consistent with SMCRA or federal regulations. During 1990, in compliance with this provision, OSM issued such "732" letters to all States on the following topics:

- During 1989-90, letters covering all regulatory changes through July 30, 1989;
- On February 7, 1990, a letter covering the rule published on December 10, 1989, concerning exemption for coal extraction incidental to the extraction of other minerals;

TABLE 3
FINAL RULES PUBLISHED DURING 1990

Exemption for Coal Extraction Incidental to the Extraction of Other Minerals

54FR52092 4/1/90 (30 CFR Parts 700, 702, 750, 870, 910, 912, 921, 922, 933, 939, 941, 942, and 947) Published 12/20/89

This rule provides guidance to the coal and noncoal mining industry and to coal regulatory authorities on the implementation of the exemption for coal extractions incidental to the extraction of other minerals under Section 701 (28) of SMCRA and establishes criteria and procedures for determining whether an operation qualifies initially and on a continuing basis for the exemption.

Federal Lands Program

55FR9400 4/14/90 (30 CFR Part 740) Published 3/13/90

Amends a portion of the federal lands regulations to conform to the July 6, 1984, decision of the U.S. District Court for the District of Columbia with respect to the applicability of the federal lands program.

Application Fee for Permit to Conduct Surface Coal Mining Operations

55FR29536 8/20/90 (30 CFR Parts 736 and 750) Published 7/19/90

Regulations were amended to add a system of fees to be paid to the Office of Surface Mining Reclamation and Enforcement by applicants to obtain processing and issuance of new surface coal mining permits in federal program States and on Indian lands.

TABLE 4
COURT CHALLENGES TO THE SECRETARY'S RULEMAKING ACTIONS

Date	Rule and Code of Federal Regulations Citation
------	---

CHALLENGES DISMISSED

2/12/90	Pre-subsidence surveys and the information required in subsidence control plans (30 CFR 784.20(d))
2/12/90	Planned subsidence (30 CFR 817.121(a))
6/8/90	Revegetation (30 CFR Parts 701, 816, and 817)
6/8/90	Restoration of ground water recharge capacity for underground mines (30 CFR Parts 784.14 and 817.41)
6/8/90	Fish and wildlife resource information, planning requirements, and the protection of fish and wildlife values (30 CFR Parts 780.16, 784.21, 816.97, and 817.97)
8/30/90	The use of prime farmlands for impoundments and the disposal of coal mine waste resulting from underground mines on prime farmlands (30 CFR 785.17(e)(5), 823.11, 813.12, and 813.14)
8/30/90	Post-mining roads (30 CFR 816.150(a)(2)(ii) and 817.150(a)(2)(iii))
8/30/90	Probable hydrologic consequences (PHC) standards (30 CFR 780.21(f) and 784.14(e))
8/30/90	Off-site processing plant rules (30 CFR Parts 785.21 and 827.1)
8/30/90	Stability of water impoundments (30 CFR 816.49(a)(3) and 817.49(a)(3))
9/5/90	Alluvial valley floors: the definitions of "agricultural activities" and "farming" (30 CFR Parts 701.5 and 785)
9/5/90	Performing reclamation without renewing a permit (30 CFR 701.11, 740.13(a)(1) and (3), 750.11(a)-(c), 773.11(a), 843.11(a)(2), 774.10, and 800.60(b))
9/5/90	Coal exploration: test burns (30 CFR 772.14(b)) and narrative descriptions (30 CFR 772.11(b)(3))

CHALLENGES UPHELD

2/12/90	Underground operator's liability for subsidence damage to structures (30 CFR 817.121(c)(2))
2/12/90	The date SMCRA became applicable to off-site coal preparation plants (30 CFR 827.13)
2/12/90	The definition of "previously mined area" (30 CFR 701.5)
8/30/90	Termination of regulatory jurisdiction for reclaimed sites or completed surface coal mining and reclamation operations and the reassertion of that jurisdiction (30 CFR 700.11(d))
8/30/90	Inspection frequency for abandoned sites (30 CFR 840.11(g) and (h), 842.11(e) and (f))
8/30/90	Use of geographic proximity test for determining regulatory jurisdiction over off-site coal preparation plants (30 CFR 785.17(e)(5))
9/5/90	The Secretary's non-promulgation of a VER requirement to conduct coal exploration in Section 522(e) areas

- On June 22, 1990, a letter concerning the decision by the U.S. District Court for the District of Columbia relative to the regulatory provisions for limitations to subsidence liability.

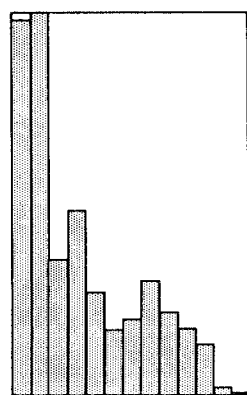
These letters resulted in the submission of a large number of complex amendments from the States. OSM has taken a number of steps to process these submissions more efficiently. For example, the amendment review process within OSM has been decentralized and format and content guidelines for the State program amendment submittal have been issued to the States.

STATE REGULATORY PROGRAMS

Since May 3, 1978, all surface coal mining operations have been required to be permitted by the States and to comply with OSM regulations. Currently there are 24 primacy States that administer and enforce programs for regulating surface coal mining and reclamation under SMCRA. In addition, during 1990, three States had federal programs where OSM regulated surface coal mining and reclamation. Table 5 summarizes State program statistics during the period from July 1, 1989, through June 30, 1990. (OSM's annual statistics on State and federal regulatory programs are compiled on a July-June cycle.)

GRANTS TO STATES

PROGRAM DEVELOPMENT GRANTS

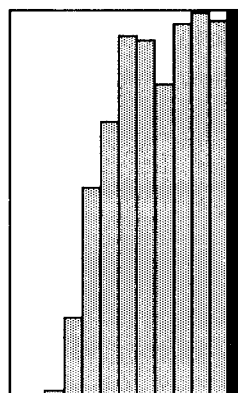


Program Development Grants 1978-90

Section 201 of SMCRA authorizes OSM to assist State regulatory agencies in developing or revising surface mining regulatory programs. All regulatory program development funding for the three coal resource tribes (Crow, Hopi, and Navajo) has been suspended in view of the unlikelihood of foreseeable Congressional action on legislation to allow for tribal primacy under SMCRA Section 710. However, in 1990 OSM continued funding to Indian Tribes to allow tribal

participation by the Hopi and Navajo in the preparation of the environmental impact statement for the Black Mesa-Kayenta mine in Arizona. Table 6 summarizes program development grants in 1990.

REGULATORY GRANTS



Permanent Program Regulatory Grants 1978-90

Section 705 of SMCRA authorizes OSM to provide grants to States with approved regulatory programs in amounts not exceeding 50 percent of annual State program costs.

In addition, when a State elects to administer an approved program on federal lands through a cooperative agreement, the State becomes eligible to receive financial assistance for up to 100 percent of the amount the Federal Government would have expended in regulating coal mining on those lands. Table 7 shows the grant amounts provided to States during 1990 to administer and enforce regulatory programs.

FEDERAL PROGRAMS FOR STATES

Section 504(a) of SMCRA requires OSM to regulate surface coal mining and reclamation activities on non-federal and non-Indian lands in a State if:

- the State's proposal for a permanent program is not approved by the Secretary;
- the State does not submit its own permanent regulatory program; or
- the State does not implement, enforce, or maintain its approved State program.

Although OSM encourages and supports State primacy in the regulation of surface coal mining and reclamation operations, certain States with coal reserves elected not to submit or maintain regulatory programs. These States, thus, became federal program States, with surface coal mining and reclamation operations regulated by OSM. Full federal programs are in effect in eleven States: California, Georgia, Idaho, Massachusetts, Michigan, North Carolina, Oregon, Rhode Island, South Dakota, Tennessee, and Washington. Of the federal programs, only California, Tennessee, and Washington have active coal mining. Table 8 summarizes OSM's regulatory actions in those three States during 1990.

FEDERAL OVERSIGHT OF STATE REGULATORY PROGRAMS

SMCRA Section 517(a) states that OSM shall make such inspections as are necessary to evaluate the administration of approved State programs. In meeting this requirement, OSM reviews permits, conducts oversight inspections of mine sites, and undertakes special studies on

TABLE 5
STATE PROGRAM STATISTICS
1990 (July 1, 1989-June 30, 1990)

	Alabama	Alaska	Arkansas	Colorado	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maryland	Missouri
State Staffing (FTE's 6/30/90)												
Regulatory Program	36	4.75	8.15	17.5	91	67	4.53	6.85	456	4.5	13.6	13.23
AML Program	32	2	4.15	9	35	22	5.60	4.40	48	1.5	2.4	12.10
Permits												
New Permits Issued	34	0	3	0	10	13	1	1	198	0	4	3
Inspections												
Inspectable Units (6/30/90)	315	2	33	54	113	491	31	33	4,179	2	108	92
Complete Inspections	3,095	8	145	224	472	1,887	112	134	15,946	8	558	359
Partial Inspections	880	16	222	316	1,110	3,372	231	264	24,054	16	1,063	719
Citations Issued												
Notices of Violations (Actions)	329	1	15	45	136	248	35	5	3,000	4	25	35
Failure-to-Abate Cessation Orders	71	0	4	0	10	34	3	0	567	0	3	17
Imminent Harm Cessation Orders	0	0	1	1	3	0	1	0	59	0	10	0
Bonds												
Forfeitures	10	0	1	0	2	1	0	0	98	0	0	0
Abandoned Mine Lands												
Acreage Reclaimed	196.45	1	40	107	753	32.7	106	10.5	148.5	0	6.3	693

TABLE 5 Continued
STATE PROGRAM STATISTICS
1990 (July 1, 1989-June 30, 1990)

	Montana	New Mexico	North Dakota	Ohio	Oklahoma	Pennsylvania	Texas	Utah	Virginia	West Virginia	Wyoming
State Staffing (FTE's 6/30/90)											
Regulatory Program	15.9	14.5	9.7	100.22	44.1	329	47.25	18.5	98	120	39.25
AML Program	7	9.25	6.05	46.46	6	162	17	7	17	51	10.5
Permits											
New Permits Issued	0	1	2	100	9	213	1	1	36	153	0
Inspections											
Inspectable Units (6/30/90)	20	14	45	904	179	3,472	33	30	964	3,385	44
Complete Inspections	147	56	220	3,818	643	13,658	138	133	3,982	2,301	161
Partial Inspections	115	108	592	5,897	848	22,785	290	237	4,698	1,633	473
Citations Issued											
Notices of Violations (Actions)	22	12	5	1,002	80	768	6	43	478	2,553	21
Failure-to-Abate Cessation Orders	0	0	0	147	27	173	0	0	23	301	0
Imminent Harm Cessation Orders	1	0	0	31	0	1	0	1	16	49	1
Bonds											
Forfeitures	0	0	0	28	0	41	0	0	13	58	0
Abandoned Mine Lands											
Acreage Reclaimed	247.5	47	231	101.7	105	1,293.8	44	30	82.6	377.9	335

TABLE 6
PROGRAM DEVELOPMENT GRANTS 1990
Obligations

Indian Tribe	FY 1990
Crow	\$ 0
Hopi	35,000
Navajo	40,000
Total	\$75,000

topics of concern in the 24 States with approved primacy programs. Oversight inspections are conducted on a random sample basis or in response to citizen complaints. If OSM has reason to believe a violation of the State program exists, OSM must notify the State (except in the case of imminent danger to the public or the environment, in which case OSM must immediately inspect the site and issue a cessation order when a State has not taken appropriate action). OSM notifies the State of a possible violation with a "Ten-Day Notice." Once notified of a possible violation, the State then has ten days in which to take appropriate action to cause the violation to be corrected, or to show good cause for not doing so. In the relatively few instances where OSM determines that a State has not taken appropriate action or shown good cause, a federal inspection is conducted and, if a violation is found to exist, a federal Notice of Violation or a Cessation Order is issued.

Since 1989, changes have been implemented in the manner in which OSM conducts oversight of State programs. These changes included revised requirements for the field office director's report on each State program, an emphasis on oversight tailored to specific areas under each State program based on perceived need or to follow up on prior problems, and the use of action plans developed jointly between field office directors and States to resolve problems when they occur. Table 9 summarizes OSM's oversight inspection and enforcement activities during 1990.

REGULATION OF SURFACE MINING ON FEDERAL AND INDIAN LANDS

FEDERAL LANDS PROGRAM

Section 523(a) of SMCRA requires the Secretary of the Interior to establish and implement a federal regulatory program applicable to all surface coal mining and reclamation operations taking place on federal lands. On

February 16, 1983, OSM promulgated the current federal lands program.

The federal lands program is critical because the federal government owns significant coal reserves, primarily in the West, whose development is governed by the Federal Coal Management program of the U.S. Department of the Interior's Bureau of Land Management. Of the 234 billion tons of identified coal reserves in the western U.S., 60 percent is federally owned.

Through cooperative agreements, the administration of most surface coal mining requirements for the federal lands program may be delegated by the Secretary to States with approved regulatory programs. By the end of 1990, the Secretary had entered into such cooperative agreements with Alabama, Colorado, Illinois, Montana, New Mexico, North Dakota, Ohio, Oklahoma, Utah, Virginia, West Virginia, and Wyoming.

Once the Secretary and the State have a signed cooperative agreement, the State regulatory authority assumes responsibility under SMCRA for permitting, inspection, and enforcement for surface coal mining activities on federal lands in that State. OSM then maintains an oversight function to ensure that the regulatory authority fully exercises its delegated responsibility under the cooperative agreement. In States without cooperative agreements, the required permitting, inspection, and enforcement activities under SMCRA are carried out by OSM. During 1990, 22 permitting actions were completed by OSM for surface coal mining operations on federal lands in Kentucky.

INDIAN LANDS PROGRAM

Pursuant to Section 710 of SMCRA, OSM regulates coal mining and reclamation on Indian lands. Mines on the Navajo and Hopi Reservations and a portion of a haul road which crosses the Ute Mountain Reservation are

TABLE 7
REGULATORY GRANT FUNDING
1990 Obligations

State	Federal Lands	Non-Federal Lands (Federal Share)	Total Federal Funding*
Alabama	\$25,033	\$1,002,926	\$1,027,959
Alaska	0	274,397	274,397
Arkansas	0	158,600	158,600
Colorado	800,788	252,764	1,053,552
Illinois	94,195	2,364,693	2,458,888
Indiana	0	1,220,293	1,220,293
Iowa	0	167,826	167,826
Kansas	0	184,941	184,941
Kentucky	0	11,847,320	11,847,320
Louisiana	0	192,037	192,037
Maryland	0	492,008	492,008
Mississippi	0	22,981	22,981
Missouri	0	430,402	430,402
Montana	565,669	153,329	718,998
New Mexico	236,700	322,400	559,100
North Dakota	283,004	214,624	497,628
Ohio	0	2,699,033	2,699,033
Oklahoma	15,593	869,233	884,826
Pennsylvania	0	10,046,974	10,046,974
Texas	0	961,275	961,275
Utah	876,463	207,226	1,083,689
Virginia	5,943	3,124,563	3,130,506
West Virginia	0	3,206,614	3,206,614
Wyoming	1,215,366	240,266	1,455,632
Hopi Tribe	0	35,000	35,000
Navajo Tribe	0	41,500	41,500
Total	\$4,118,754	\$40,733,225	\$44,851,979

*Includes obligations for AVS, TIPS, Kentucky Settlement Agreement, and other Title V cooperative agreements.

TABLE 8
FEDERAL REGULATORY PROGRAMS
STATES WITH ACTIVE MINING
1990 (July 1, 1989 - June 30, 1990)

	Tennessee	Washington	California
Permits			
New Permits Issued	11	0	0
Permits Suspended	4	0	0
Permits Revoked	4	0	0
Inspections			
Inspectable Units	761	4	3
Complete Inspections	1937	31	12
Partial Inspections	3963	11	24
Citations Issued			
Notices of Violation	392	2	1
Failure-to-Abate Cessation Orders	71	0	0
Imminent Harm Cessation Orders	9	0	0
Bonds*			
Final Bonds Released	18	0	0
Forfeitures Initiated	6	0	0
Bonds Collected	3	0	0
Default Sites Reclaimed	0	0	0
Designation of Lands Unsuitable for Mining			
Petitions Received	0	0	0
Acres Designated Unsuitable	5250	0	0

*Permanent Program Sites only.

within the responsibility of OSM's field office in Albuquerque, New Mexico.

For the Crow Ceded Area in Montana, OSM and the Montana Department of State Lands have developed a Memorandum of Understanding under which the State and OSM cooperatively administer applicable surface mining requirements, including the permitting and inspection functions. The mine on the Crow Ceded Area is under the jurisdiction of OSM's field office in Casper, Wyoming. Table 10 provides statistics on regulatory activities on Indian lands during 1990.

HEARINGS AND APPEALS

SMCRA requires the Secretary of the Interior to provide administrative review of OSM's actions, including the opportunity for hearings governed by the Administrative

Procedure Act. The Secretary has delegated this administrative review function to the Department's Office of Hearings and Appeals (OHA), which is not part of OSM but which handles all the administrative review responsibilities of the Department of the Interior.

OHA consists of a Hearings Division -- staffed by administrative law judges who hold hearings under the Administrative Procedure Act -- and several appeals boards established to review appeals arising from decisions of administrative law judges or from decisions of certain program bureaus within the Department of the Interior. The appellate functions of the Secretary under SMCRA have been delegated to the Interior Board of Land Appeals (IBLA). Under SMCRA, a person adversely affected by a written decision of the director of OSM, or by a delegate of the Director, may appeal directly to IBLA if

TABLE 9
FEDERAL OVERSIGHT OF STATE PROGRAMS
1990 (July 1, 1989 - June 30, 1990)

State	Number of OSM Inspections		Violations Cited in OSM Enforcement Actions	
	Random	Other*	NOV's**	CO's***
Alabama	154	15	0	0
Alaska	2	0	0	0
Arkansas	16	6	0	0
Colorado	25	6	0	0
Illinois	57	26	0	0
Indiana	193	48	0	0
Iowa	14	3	1	0
Kansas	17	15	2	0
Kentucky	430	1313	7	3
Louisiana	1	0	0	0
Maryland	56	15	0	0
Missouri	41	11	1	0
Montana	9	3	0	0
New Mexico	7	0	0	0
North Dakota	29	5	0	0
Ohio	276	96	3	0
Oklahoma	67	83	8	0
Pennsylvania	348	316	0	0
Texas	15	4	0	0
Utah	15	5	2	0
Virginia	276	54	0	0
West Virginia	348	683	12	5
Wyoming	17	14	1	0

*Reflects additional inspections required to implement litigation settlement agreements.
**Notices of Violation
***Imminent Harm or Failure-to-Abate Cessation Orders

the decision specifically grants the right to appeal.

The headquarters of OHA is in Arlington, Virginia, where the chief administrative law judge, the various appeals boards, and a number of other administrative law judges, including one charged with OSM matters, maintain their offices. Three Hearings Division field offices, in Pittsburgh, Pennsylvania; Knoxville, Tennessee; and Salt Lake City, Utah, currently handle OSM matters. Administrative review under SMCRA has presented the administrative law judges and IBLA with a variety of issues for resolution. In 1990, IBLA issued decisions in 35 SMCRA cases.

KENTUCKY SETTLEMENT AGREEMENT

In September 1987, a Settlement Agreement was reached between the National Wildlife Federation et al. and the Commonwealth of Kentucky.

The Department of the Interior, the Commonwealth of Kentucky, and environmental and industry groups participated in negotiations on the settlement agreement. At the same time, a Supplemental Memorandum of Understanding was entered into between OSM and Kentucky. Congressional authorization for funding to carry out terms of the Memorandum of Understanding was approved in December 1987 for \$12,900,000, and OSM and Kentucky signed a three-year Cooperative Agreement

TABLE 10
REGULATORY ACTIVITIES ON INDIAN LANDS
1990

	Number
Indian lands in Arizona and New Mexico	
Total permits	6
Inspectable Units (All lands)	9
Total Inspections (Partial and Complete)	79
Enforcement Actions (Notices of Violations issued)	13
Indian lands in Montana	
Total Permits	1
Inspectable Units (All lands)	1
Total Inspections (Partial and Complete)*	12
Enforcement Actions (Notices of Violations issued)	0

*All inspections (partial and complete) are conducted jointly by the Montana Department of State Lands and the OSM Casper Field Office

covering funding on February 23, 1988. The Cooperative Agreement provides \$10,540,000 for the accomplishment of tasks and additional duties enumerated in the Settlement Agreement and the Supplemental Memorandum of Understanding. The remaining funds are being used by OSM for background hydrology studies and acidity problems and for the development of bond release training. Since that time, the Cooperative Agreement has been amended to include an additional hydrology study, an eight-module video and training program, and special equipment.

An important requirement of the Settlement Agreement is the aerial overflight program. This requires that all permanent program surface coal mining operations without a Phase II bond release be overflown and videotaped. Kentucky is reviewing the videotapes and conducting follow-up inspections to determine if violations exist on the ground. Where it is determined that an inspector is not fulfilling the requirements of his or her position, training or other appropriate action is being taken.

The aerial overflight program has given the Kentucky management team a first-hand experience into the on-ground conditions that exist in Kentucky. The videotapes are being used by Kentucky's management in making important decisions on the overall program. The aerial overflight program has been so successful that Kentucky will continue this effort when the Settlement Agreement expires on January 31, 1991.

Because the Settlement Agreement emphasizes the elimination of illegal coal mining, coordination groups were formed between the various State and federal agencies involved with controlling this activity. These groups are now routinely discussing problems and sharing information gathered by the different agencies, where formerly each operated independently. This unified effort is showing positive results, as is demonstrated by the last two OSM annual reports, which show a significant drop in the number of illegal coal mine sites. In fact, in this year's study no additional illegal mining operations were found in a county that in the past had many illegal mining operations.

Other provisions within the Settlement Agreement and Supplemental Memorandum of Understanding include: upgrading computer systems; one-time inspection and photographing of all interim program permits and on-site construction exemptions; continuing the issuance of Failure-to-Abate Cessation Orders; assessing penalties of \$750.00 per day; development of computer tracking for unabated Cessation Orders with alternative enforcement follow-up; development of an inventory of exploration notices/permits and taking enforcement action where abuses have occurred; and denying or suspending permits in accordance with the Applicant Violator System.

Kentucky conducted a special study on 88 mine sites thought to have prematurely or improperly released bonds, concluding that while some of the mine sites certainly have problems that were caused by mining activities, it was not possible to determine whether those problems existed at the time of bond release or occurred after-

wards. Kentucky decided that it would be a waste of time and resources to take any further action on any of those mine sites.

Kentucky has made significant progress in implementing the requirements of the three agreements. The added support has led to innovative methods of mine inspection and data processing and has placed Kentucky in a position of leadership in terms of technical sophistication. A growing spirit of cooperation between coal operators and the State has resulted in improvement of the Kentucky regulatory program and an increase in voluntary compliance throughout the State's coal industry.

Overall, Kentucky is committed to improving its inspection and enforcement program. This commitment was reinforced by the 1990 Kentucky General Assembly's approval of an additional \$25 million for the next two years for continuing many of these new programs and other improvements that were a result of the 1988 National Wildlife Federation Settlement Agreement. With this additional funding, many of the new and innovative programs that Kentucky has implemented over the past few years will be continued.

PENNSYLVANIA ANTHRACITE REGULATORY PROGRAM

Section 529 of SMCRA provides an exception from federal performance standards for anthracite coal mining operations, provided the State law governing these operations was in effect on August 3, 1977. Pennsylvania is the only State with an established regulatory program qualified for exception, and thus regulates anthracite mining independent of SMCRA permanent program standards.

The Pennsylvania anthracite coal region is located in the northeast quarter of the State and covers approximately 3,300 square miles. The more than 20 different coal beds there vary in thickness from a few inches to 50 or 60 feet. The anthracite region is characterized by steeply pitching seams, some with dips steeper than 60 degrees. Such strata require highly specialized mining techniques and present unique challenges to ensure that highwalls are eliminated and the area is restored to productive post-mining land use. The long history of mining in the anthracite region has produced a legacy of abandoned mine land problems. However, because most current mining operations affect previously disturbed land, a large percentage of abandoned mine land is eventually restored to productive land use.

Anthracite mining produces about 3.3 million tons per year, approximately 4.5 percent of Pennsylvania's annual coal production. The Pennsylvania anthracite pro-

gram covers 462 inspectable units permitting over 103,000 acres, and includes 104 underground mines, 284 surface mines, 17 preparation plants, and 57 combination operations.

Pennsylvania has fully addressed conditionally approved provisions of the anthracite program through subsequent program revisions. Anthracite program permitting and inspection have experienced continued improvement; however, a disturbing enforcement trend was noted in uncited violations observed on random sample inspections. Several factors, including a significant shortage of field personnel and several changes in staff assignments, influenced this abrupt change in program achievement.

Anthracite program permitting efforts have concentrated on two areas: small underground operations and preparation plants. Pennsylvania has successfully applied program permitting and performance standards to a class of small underground operations which historically have operated without regulatory requirements. Anthracite preparation plants have been permitted or are under review for appropriate enforcement or permitting action in response to a program amendment approved during July 1989.

RECLAMATION AWARD PROGRAM

In 1986, to give well-earned public recognition to the coal mine operators responsible for the nation's most outstanding achievements in environmentally sound surface mining and land reclamation, OSM initiated the annual Excellence in Surface Coal Mining and Reclamation Awards. Since then, 33 companies have received awards for exemplary reclamation under SMCRA.

During 1988, in addition to presenting the Excellence in Surface Coal Mining and Reclamation Awards, OSM established the Director's Award, an award given annually at the discretion of the Director to one mining company in recognition of outstanding achievement in a special area of reclamation.

The 1989, awards were presented to the nine winning coal mine operators by Secretary of the Interior Manuel Lujan, Jr., in May 1990 at the American Mining Congress's annual meeting in Cincinnati, Ohio.

National public recognition of these outstanding operators:

- Promotes their exemplary performance using standard reclamation practices;
- Publicizes the development and implementation of new reclamation technologies;

- Encourages wider use of the best reclamation technology through information exchange and technology transfer;
- Provides the public with a better understanding of mined-land reclamation achievement under SMCRA; and
- Encourages voluntary action by coal mine operators that goes beyond minimum compliance with regulatory requirements to protect the environment and manage coal resource recovery.

The 1989 winners were:

The Director's Award

- Peabody Coal Company, for exemplary wetlands reclamation at its Will Scarlet Mine, located near Carrier Mills, Illinois.

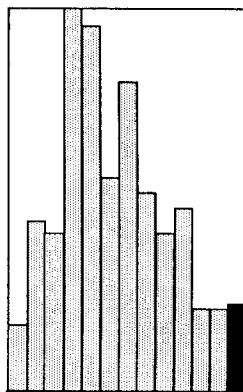
Excellence in Surface Coal Mining and Reclamation Awards

- Vigo Coal Company, Discovery No. 1 Mine; Buckskin, Indiana
- Drummond Coal Company, Kellerman No. 2 Mine; Jasper, Alabama
- Lee Jay Corporation, coal refuse dump; Clarksville, Pennsylvania
- Southern Ohio Coal Company, Martinka No. 1 Mine; Fairmont, West Virginia
- Associated Electric Cooperative, Bee Veer Operations; Clifton Hill, Missouri
- Basin Cooperative Services, Glenharold Mine; Stanton, North Dakota
- Texas Utilities Mining Company, Monticello-Winfield North Lignite Mine; Mount Pleasant, Texas
- R & S Coal Company, J & B No. 3 Mine; Lamar, Arkansas

Nominations for the 1990 award program were due November 30, 1990, for winners to be selected in the spring of 1991. Information materials, which have been distributed to encourage participation in the program and communicate reclamation information to mining companies throughout the U.S., included a video program describing winning reclamation, a flyer, and booklets illustrating specific attributes of the winning reclamation projects.

5. TECHNICAL ASSISTANCE

RESEARCH



Number of Research Projects Funded 1978-90

OSM conducts research studies to find ways to help mine operators and State and federal regulators to do a better job of handling the everyday problems associated with implementing SMCRA. These short-term research studies are directly related to the implementation of Title V regulations affecting active mining operations and provide practical answers to specific problems. In 1990, OSM research funding totaled \$782,400, an 11 percent increase over 1989 funding. These research funds were

provided to universities for the following ongoing projects, which were initiated in previous years:

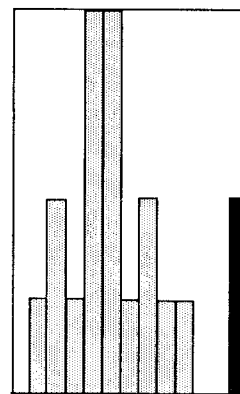
- Development of a procedure to determine the integrity of surface water quality in streams located in coal-producing regions.
- Evaluation of the relation of compaction and soil physical parameters to the productivity of reclaimed soils.
- Development of techniques to reduce soil compaction in reclaimed soils.
- Maintenance of compaction alleviation in mined land soil.
- Development of a surface mining data base and data base management system for storage, manipulation, and retrieval of surface mining data.
- Evaluation and quantification of risk assumed by the surety companies that underwrite reclamation bonds.
- Use of productivity indices to estimate the yield potential of disturbed lands.
- Evaluation of parameters affecting acid mine drainage production on a micro, field, and regional scale.
- Improvement of the characterization of sulfur in overburden and coal using state-of-the-art technology.
- Development of indices for indirect estimates of productivity of tree crops.

Three research projects were completed during 1990.

These projects were: "Environmental Factors Affecting Tree Growth on Three Wetlands Sites in Southern Illinois," "A Determination of Background Sediment Yield and Development of a Methodology for Assessing Alternative Sediment Control Technology at Surface Mines in the Semiarid West," and "Surface Coal Mining Effects on Ground Water Recharge."

OSM participates in the Technology Transfer Program sponsored by the National Technical Information Service (NTIS). During 1990, OSM transferred 210 technical reports to NTIS for dissemination to individuals concerned with mining and reclamation operations.

EXPERIMENTAL PRACTICES



Experimental Practices Started 1978-90

Section 711 of SMCRA allows alternative mining and reclamation practices that do not comply with sections 515 and 516 performance standards as a way of encouraging advances in mining technology or to allow innovative industrial, commercial, residential, or public post-mining land uses. However, the experimental practices must meet all other standards established by SMCRA and must maintain protection of the environment and the public. Approval and monitoring of a permit containing an experimental practice results in a close working relationship between the operator, the State, and OSM.

Two new experimental practices were initiated in 1990. These are:

- Bailey Mining Company, Floyd County, Kentucky. A small coal-cleaning refuse pile was revegetated by direct seeding of grasses and legumes and is being monitored under the experimental practice program. Local soils, which are thin, rocky, and of poor agricultural quality, do not provide a good growing medium. Instead of covering the refuse with the required four feet of this poor-quality soil, the operator amended the refuse with lime and fertilizer to a depth of four feet and seeded it directly. A dense stand of various grasses and herbaceous plants is currently growing on the refuse pile.
- Central Ohio Coal Company, Muskingum Mine, Noble and Muskingum Counties, Ohio. Two practices are combined at this site. The first involves the use of

calcareous shale as a substitute for topsoil. Additional research focuses on various practices to enhance tree survival and growth.

One experimental practice was completed during 1990:

- Coal Run Coal Company, Pike County, Kentucky. Level sites suitable for commercial development are at a premium in many mountainous areas. This successful experimental practice involved the construction of excess fill to enable the former mine site to be used for commercial purposes.

During 1990, OSM completed a report on all experimental practices initiated since 1977. The report, titled "Experimental Practices, Case Histories," is distributed by OSM support centers in Pittsburgh and Denver.

INDIA PROJECT

In 1984, through the United States-India Fund, OSM received the equivalent of \$420,000 from the government of India for mining and reclamation technology transfer. Working directly with the Indian government, OSM planned three research projects and signed contracts to begin the work. The approved projects are:

- A conceptual environmental management plan for the Jharia Coal Field, including reclamation of existing unreclaimed lands which have been in operation for approximately 100 years.
- A conceptual environmental management plan for the Singrauli Coal Field. This project will result in the development of contemporaneous reclamation standards for a relatively new coal field.
- An environmental model for water quality resulting in treatment facilities for improved water quality in the Jharia Coal Field. The Environmental Protection Agency is assisting with this project.

OSM will continue assistance to the government of India on these projects during 1991.

During January and February 1990, OSM conducted two workshops in India to provide training in the development of environmental management plans for the Singrauli and Jharia Coal Fields. Each workshop team was composed of five technical staff from various OSM field locations. The workshops were well received by the government of India participants and management. In September 1990, in accordance with the provisions of the Singrauli Project contract, OSM hosted a visit by an Indian scientist. The purpose of the visit was to exchange information and view field operations of coal mines similar to those in India. Coal mining operations in Wyoming

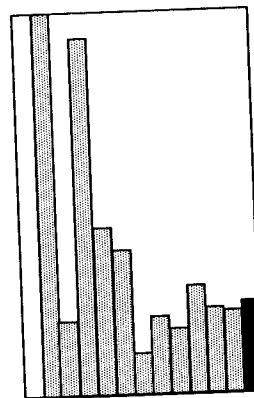
were visited and a demonstration of the Technical Information Processing System was presented.

TECHNICAL TRAINING

In 1990 nationwide training continued for federal, State, and private surface coal mining regulatory and abandoned mine land personnel. Eleven existing courses were offered and two new courses, Administration of Reclamation Projects and Evidence Preparation and Testing, were piloted. Existing courses offered were: Applied Hydrology for Permit Review; Blasting and Inspection; Enforcement Procedures; Engineering Principles for Program Personnel; Instructor Training; Historic and Archeological Preservation; Soils and Revegetation; Spoil Handling and Disposal Water Hydrology; Technical Writing; and Underground Mining Technology and Effects.

There were 941 participants in attendance at the 47 training sessions during 1990. Participation by State and tribal personnel totaled 78 percent of program attendance, while federal and private attendance increased from 18 percent in 1989 to 22 percent in 1990.

SMALL-MINE OPERATOR ASSISTANCE PROGRAM (SOAP)



SOAP Funds Expended 1978-90

Section 401(b)(1) of SMCRA authorizes up to 10 percent of the fees collected for the Abandoned Mine Reclamation Fund to be used for technical assistance to help qualified small mine operators obtain technical data needed for permit applications. Operators who produce less than 100,000 tons of coal per year are eligible for assistance. SOAP helps them meet requirements for determination of the probable hydrologic consequences of proposed mining operations and gives them a

statement of the results of test borings or coal samplings. The "determination" is an analysis of the effect of the proposed operation on the quantity and quality of surface and ground water. The "statement" is an analysis of the overburden, coal, and affected aquifers and clay zones below the coal, which provides information on their chemical and physical makeup, especially if acid- and toxic-producing materials are present.

The data are collected and analyzed by qualified laboratories and consulting firms. OSM originally approved 379 laboratories throughout the U.S. Qualification of laboratories is now the responsibility of the State regulatory authorities.

TABLE 11
SMALL OPERATOR ASSISTANCE PROGRAM
1990 GRANT AWARDS

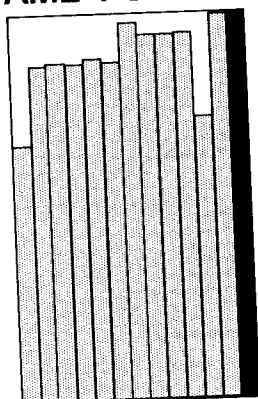
State or Indian Tribe	Grants
Alabama	\$0
Alaska	0
Arkansas	0
California	0
Colorado	0
Georgia	0
Illinois	0
Indiana	0
Iowa	49,000
Kansas	0
Kentucky	0
Louisiana	0
Maryland	25,000
Missouri	0
Montana	0
New Mexico	0
North Dakota	0
Ohio	343,000
Oklahoma	0
Pennsylvania	1,104,000
Tennessee	0
Texas	0
Utah	0
Virginia	20,000
Washington	0
West Virginia	60,000
Wyoming	0
Crow Tribe	0
Hopi Tribe	0
Navajo Tribe	0
Total	\$1,601,000

Regulations for SOAP place responsibility with the States that have approved permanent programs. In States with federal programs, OSM operates SOAP. In 1990, 140 small operators received assistance. This represented an eight percent decrease in participation from 1989. Table 11 provides a breakdown of SOAP grant awards by State and Indian tribe during 1990.

6. ABANDONED MINE LAND PROGRAM

Title IV of SMCRA--the Abandoned Mine Land (AML) Program--provides for the restoration of lands mined and abandoned or left inadequately restored before August 3, 1977, with priority given to projects that alleviate dangers to public health and safety.

AML FUND

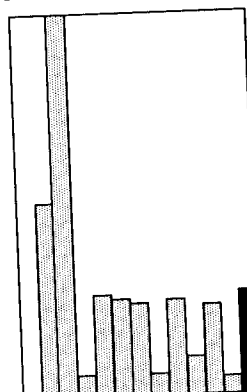


AML Fund Collections 1978-90

In addition to the reclamation fees paid by the coal industry, the fund also receives donations, user charges, and other recovered amounts such as late-payment fines. In 1990 collections from these sources totalled \$1,215,371.

Expenditures from the fund are made through the regular budgetary and appropriations process. SMCRA specifies that 50 percent of the reclamation fees collected in each State with an approved reclamation program, or within Indian lands where the Indian tribe has an approved reclamation program, are to be allocated to that State or tribe for use in its reclamation program. This 50 percent is designated as the State or tribal share of the Fund. The remaining 50 percent (the federal share) is used by OSM to complete high priority and emergency projects under its Federal Reclamation Program, to fund the Rural Abandoned Mine Program (RAMP) administered by the U.S. Department of Agriculture, to fund the Small Operator Assistance Program (SOAP), and to fund reclamation directly through State reclamation programs. In 1990, at the direction of Congress, the formula used to distribute federal share money to the State reclamation programs was developed using a formula based on historic coal production. Table 12 shows fee collections and funding by States for 1990.

FEDERAL RECLAMATION PROGRAM

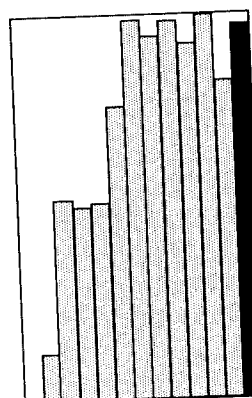


Interior Department Projects 1978-90

Until States or Indian tribes received approval of their AML programs, all reclamation was carried out as Department of the Interior projects administered by OSM. However, as State programs were approved, beginning in 1980, and as the States assumed responsibility for correcting AML problems, OSM has greatly reduced its direct participation in this portion of the program. During 1990, construction at 42 Interior Department projects was started. These high-priority projects were principally in non-program States and, to a lesser extent, on Indian lands.

Each year OSM evaluates federal reclamation projects that have been completed for at least three years. The objective is to identify abatement or control methods that are effective over time, as well as those with demonstrated deficiencies that need to be improved. The report issued in 1990 reviewed 21 of the 244 projects completed in 1986, and 2 projects in Tennessee that were completed in 1984. Seventy-four percent of the projects were very successful, 13 percent had minor deficiencies, and 9 percent had recurring AML problems. Deficiencies and problems were analyzed and recommendations were provided to OSM staff to assure improvement in future projects.

EMERGENCY PROJECTS



OSM Emergency Projects 1978-90

Emergency projects are those involving abandoned coal mine lands that present an immediate danger to the public health, safety, or general welfare and which require immediate action.

Since the beginning of the program, OSM has encouraged States to take over emergency project responsibility. Beginning in 1983, Arkansas and Montana assumed emergency project responsibility, followed by Illinois in 1984. During 1988-89, Kansas, Virginia, and West Virginia took over responsibility for their emergency projects, and Alabama assumed responsibility in 1990. In 1989, OSM established a new emergency program policy that provided federal share

TABLE 12
AML FEE COLLECTIONS AND FUNDING
1990

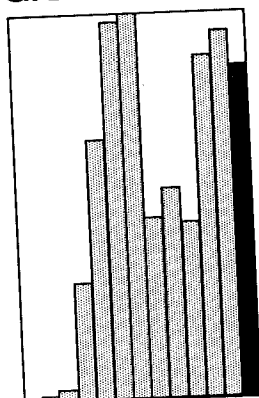
State or Tribe	Fees Collected	Federal Projects	RAMP Projects	StateShare Allocation	Federal Share Allocation	Emergency Allocation
Alabama	\$5,964,420	\$0	\$398,000	\$2,895,539	\$1,633,702	\$0
Alaska	512,448	0	0	221,052	19,506	0
Arkansas	23,920	0	463,000	0	1,500,000	0
California	6,368	0	0	0	0	0
Colorado	4,431,602	83,175	0	1,707,313	793,111	0
Georgia	0	38,984	0	0	0	0
Illinois	12,580,754	0	70,000	6,102,145	5,406,229	384,000
Indiana	11,683,791	160,927	117,000	4,155,747	1,586,210	0
Iowa	131,676	1,020	0	0	1,500,000	0
Kansas	361,815	0	0	230,079	911,917	475,000
Kentucky	38,439,851	10,234,451	1,609,000	14,998,561	1,595,373	0
Louisiana	314,324	0	0	97,393	0	0
Maryland	816,622	250	214,000	522,959	977,041	0
Missouri	1,199,504	0	0	526,663	973,337	0
Montana	12,146,492	0	0	4,375,557	385,939	250,000
New Mexico	3,873,800	1,980	0	1,388,434	278,671	0
North Dakota	2,954,286	0	25,000	1,333,144	247,777	0
Ohio	9,178,523	612,455	842,000	3,733,425	2,542,507	0
Oklahoma	622,987	3,462	388,000	246,959	1,253,041	0
Pennsylvania	17,310,250	1,421,680	1,274,000	7,304,487	17,548,384	0
Tennessee	1,1206,712	555,660	514,000	0	0	0
Texas	5,508,115	0	0	1,682,652	49,276	0
Utah	3,218,018	0	0	1,037,056	462,944	0
Virginia	8,913,788	33,791	374,000	3,739,023	1,087,291	250,000
Washington	1,661,425	141,243	0	0	0	0
West Virginia	31,318,183	3,751	1,254,000	11,076,677	10,190,594	3,000,000
Wyoming	59,763,433	0	77,000	22,978,977	0	0
Cheyenne River Sioux	0	500,000	0	0	0	0
Fort Peck Tribe	0	6,000	0	0	0	0
National Park Service	0	297,439	0	0	0	0
Crow Tribe	1,008,603	0	0	2,088,308	0	0
Hopi Tribe	1,139,149	0	0	100,000	0	0
Navajo Tribe	7,184,970	0	0	2,156,000	0	0
Federal Share Collections	84,338					
TOTAL	\$243,560,167	\$14,096,268	\$7,619,000	\$94,698,150	\$50,942,850	\$4,359,000

funds, in addition to the formula-based allocation, to States with emergency programs.

Since 1988, it has been OSM policy to stabilize the emergency portion of AML problems permanently, and then to refer any remaining work at the site to the State for consideration under its regular AML reclamation program. OSM initiated 189 emergency projects in 1990, while States with emergency programs initiated 118 in 1990.

Table 13 summarizes high-priority and emergency project obligations by State for 1990.

GRANTS TO STATES AND TRIBES



Grants & Cooperative Agreements 1978-90

Beginning with Texas in 1980, OSM has approved State reclamation programs so that currently all primacy States except Mississippi have approved AML programs. During 1988 the Navajo and Hopi Tribe programs were approved, and in 1989 the Crow Tribe received approval for its program. States and the Tribes received grants totaling \$191,625,030 in 1990. Since 1981, when the States began receiving AML administrative grants to operate their programs and construction grants to complete reclamation projects, through 1990, they have received \$1,466,608,340 from the Fund. Grant amounts for 1990 are shown in Table 14. On-the-ground coal mine reclamation accomplishments resulting from grant funding through 1990 are summarized in Table 15.

MINIMUM PROGRAM GRANT FUNDING

The minimum-level AML program was established by Congress in 1988 to assure funding of existing high-priority projects in States where the annual State share allocation is too small for the State to administer a program and initiate reclamation.

Seven States (Arkansas, Iowa, Kansas, Maryland, Missouri, North Dakota, and Oklahoma) were eligible for minimum-level program funding during 1990 and received such grants during the year. Authorized funding of the minimum-level program was \$1,500,000 for 1990. Eligible States received \$7,951,324 of federal-share money in 1990. This includes \$2,231,324 of normal federal-share distribution, plus \$5,720,000 of contributions from non-minimum program States. These contributions bring the seven States to the minimum program level. Once minimum-program States complete their high-priority projects listed in the National Inventory of AML Problems, annual funding is limited to State-share money.

STATE-SHARE SET-ASIDE GRANTS

Beginning in 1987, Public Law 100-34 authorized States to set aside up to 10 percent of the State-share portion of their annual AML reclamation grants. Set-aside money must be deposited into special trust funds, and will be available, along with interest earned, for use by the State for reclaiming AML problems after August 3, 1992--the original expiration date for the collection of AML reclamation fees, until legislation in late 1990 extended the program for three years.

In 1990, six States and the Crow and Navajo Tribes set aside \$3,741,428.

SUBSIDENCE INSURANCE PROGRAM

Public Law 98-473 authorized the States and Tribes with approved reclamation plans to use abandoned mine land funds for establishing self-sustaining, individually administered programs to insure private property against damages caused by land subsidence resulting from abandoned underground coal mines. Implementing rules were promulgated in February 1986. Under these rules, States can receive a subsidence insurance grant of up to \$3 million, awarded from the State's share of the AML Fund. In 1990 there were no subsidence insurance grants issued. Through 1990, OSM has granted a total of \$9,089,881 to the States of Colorado, Indiana, Kentucky, Ohio, West Virginia, and Wyoming to develop and administer subsidence insurance programs.

NATIONAL INVENTORY OF AML PROBLEMS

As part of its 1989 appropriation, OSM was directed by Congress to conduct a review and revision of the existing National Inventory of Abandoned Mine Land Problems and to improve the inventory's site evaluation and data consistency among States. The FY 1989 OSM appropriation provided funding of up to \$2 million to implement this project. Since the Association of State AML Programs and a number of individual States were not interested in performing the effort, OSM undertook the project directly, utilizing \$1.5 million in reprogrammed funds. Due to the limited time and funds available, the project included only dangerous highwall, subsidence, and underground mine fire problems. These three areas account for three-quarters of the costs and one-third of the problems in the inventory.

During the summer of 1989, OSM reviewed 3,900 problem areas using newly developed criteria for defining the degree of the hazard at these sites. Initial results were reviewed by the States, and disputed areas were reviewed again. The review resulted in a \$3 billion decrease in the inventory (from \$5.9 to \$2.9 billion for priority 1 and 2 problem areas). Most of the decrease

TABLE 13
FEDERAL RECLAMATION PROGRAM PROJECTS
1990 OBLIGATIONS

State or Tribe	Emergency	High Priority	Total 1978-90
Alabama	\$0	\$0	\$13,993,114
Alaska	0	0	175,247
Arkansas	0	0	82,803
Colorado	12,378	0	1,815,333
Georgia	0	38,984	1,712,900
Illinois	0	0	5,375,249
Indiana	160,927	0	3,541,452
Iowa	61,497	0	207,736
Kansas	0	0	4,173,058
Kentucky	10,234,451	0	49,696,482
Louisiana	0	0	0
Maryland	250	0	1,880,052
Michigan	0	54,000	1,347,292
Missouri	0	0	7,707,578
Montana	0	0	1,271,799
New Mexico	0	0	2,408,065
North Carolina	0	0	205,407
North Dakota	3,000	0	1,776,945
Ohio	612,455	0	14,861,994
Oklahoma	5,985	0	464,824
Pennsylvania	1,421,680	0	72,525,639
Tennessee	0	555,660	11,206,782
Texas	0	0	269,288
Utah	0	0	248,024
Virginia	33,791	0	9,908,055
Washington	773	140,470	2,119,711
West Virginia	3,751	0	28,465,931
Wyoming	971	0	1,122,188
Cheyenne River Sioux Tribe	0	250,000	1,243,537
Crow Tribe	0	0	1,095,267
Fort Peck Tribe	0	6,000	6,599
Hopi Tribe	0	0	1,003,105
Navajo Tribe	0	0	2,472,682
Northern Cheyenne Tribe	0	0	544,014
Total	\$12,551,909	\$1,045,114	\$244,927,952

TABLE 14
AML GRANTS* TO PRIMACY STATES AND INDIAN TRIBES
1990

State or Tribe	Plan Preparation	Subsidence Insurance	10% Program Set-Aside	Administration	Construction	Emergency
Alabama	\$0	\$0	\$0	\$1,932,340	\$2,803,219	\$0
Alaska	0	0	0	128,910	0	0
Arkansas	0	0	0	701,187	503,339	50,000
Colorado	0	0	170,731	764,761	1,611,337	0
Illinois	0	0	0	1,588,761	10,602,356	411,546
Indiana	0	0	0	1,181,423	4,360,000	0
Iowa	0	0	0	298,841	1,202,056	0
Kansas	0	0	0	338,931	1,131,600	475,000
Kentucky	0	0	0	3,207,101	5,515,087	0
Louisiana	0	0	0	102,769	0	0
Maryland	0	0	0	186,351	972,000	0
Mississippi	0	0	0	0	0	0
Missouri	0	0	0	802,722	5,659,240	0
Montana	0	0	437,556	3,407,834	2,232,426	250,000
New Mexico	0	0	138,843	1,032,301	911,500	0
North Dakota	0	0	0	1,152,938	2,138,723	0
Ohio	0	0	0	3,166,909	4,408,039	0
Oklahoma	0	0	0	930,605	801,789	0
Pennsylvania	0	0	0	24,120,770	27,474,074	0
Tennessee	0	0	0	0	0	0
Texas	0	0	168,265	1,248,399	2,050,100	0
Utah	0	0	103,705	603,264	982,029	0
Virginia	0	0	0	1,303,020	4,376,295	250,000
West Virginia	0	0	0	3,787,047	26,888,500	3,000,000
Wyoming	0	0	2,297,898	4,915,318	16,716,136	0
Crow Tribe	0	0	208,830	728,932	985,280	0
Hopi Tribe	0	0	0	188,410	134,214	0
Navajo Tribe	0	0	215,600	1,167,873	0	0
Total	\$0	\$0	\$3,741,428	\$58,987,717	\$124,459,339	\$4,436,546

*Funding for these grants is derived from the FY 1990 allocation and funds recovered or carried over from previous years.

TABLE 15
HIGH-PRIORITY PROJECT RECLAMATION ACCOMPLISHMENTS*
1977-1990

State or Tribe	Number of Problem Areas Reclaimed	Acres Reclaimed	Feet of Highwall Reclaimed	Water Problems Reclaimed	Mine Fires Reclaimed	Mine Openings Reclaimed	Subsidence Reclaimed
Alabama	230	172	31,076	27	18	813	8
Alaska	15	5	55	2	0	6	0
Arkansas	20	21	18,485	5	0	18	0
Colorado	261	5	42,310	1	25	451	7
Illinois	231	1,354	7,754	14	606	222	2
Indiana	242	998	88,643	89	2	328	14
Iowa	16	592	29,535	42	0	1	0
Kansas	17	1	12,710	1	0	1	4
Kentucky	384	11,541	18,111	165	204	1,158	12
Louisiana	0	0	0	0	0	0	0
Maryland	24	41	9,344	11	0	9	4
Missouri	45	2,459	58,027	65	7	32	1
Montana	197	35	0	37	176	710	62
New Mexico	23	0	0	2	7	112	11
North Dakota	21	4	9,000	3	1	65	11
Ohio	56	2,452	10,120	15	0	69	24
Oklahoma	45	38	95,729	46	0	33	5
Pennsylvania	239	751	252,542	47	3,568	223	34
Tennessee	55	380	30,059	21	1	143	1
Texas	1	0	0	0	0	8	1
Utah	32	35	3,525	8	40	406	0
Virginia	131	2,021	28,011	91	36	946	3
West Virginia	252	1,537	66,303	45	188	527	30
Wyoming	82	3	10,000	1	18	423	4
Crow Tribe	0	0	0	0	0	0	0
Hopi Tribe	2	0	5,810	0	0	0	0
Navajo Tribe	10	71	0	0	34	44	1
Total	2,631	24,515	827,149	738	4,930	6,748	239

*Source: National AML Inventory, includes all high-priority projects completed by federal and State programs. Data may differ from previous annual reports where only State program accomplishments were summarized from annual oversight reports.

occurred in the highwall category, where reviewers found that considerable numbers of highwall sites were remote and seldom visited and were, therefore, not significant threats to public safety.

OSM STUDY ON AML FUND REAUTHORIZATION

During 1990, OSM prepared a final draft study to quantify the accomplishments of the current AML reclamation program, evaluate the impacts of the reclamation fee on the coal mining industry, and assess the nature and distribution of remaining abandoned coal mining land problems. The study was designed to provide information about the AML program, the AML problem nationwide, and the issues that are of central concern to any decision on renewal of the program. The study also addressed the impacts of potential modifications to Title IV of SMCRA.